MAHENG/2013/50733

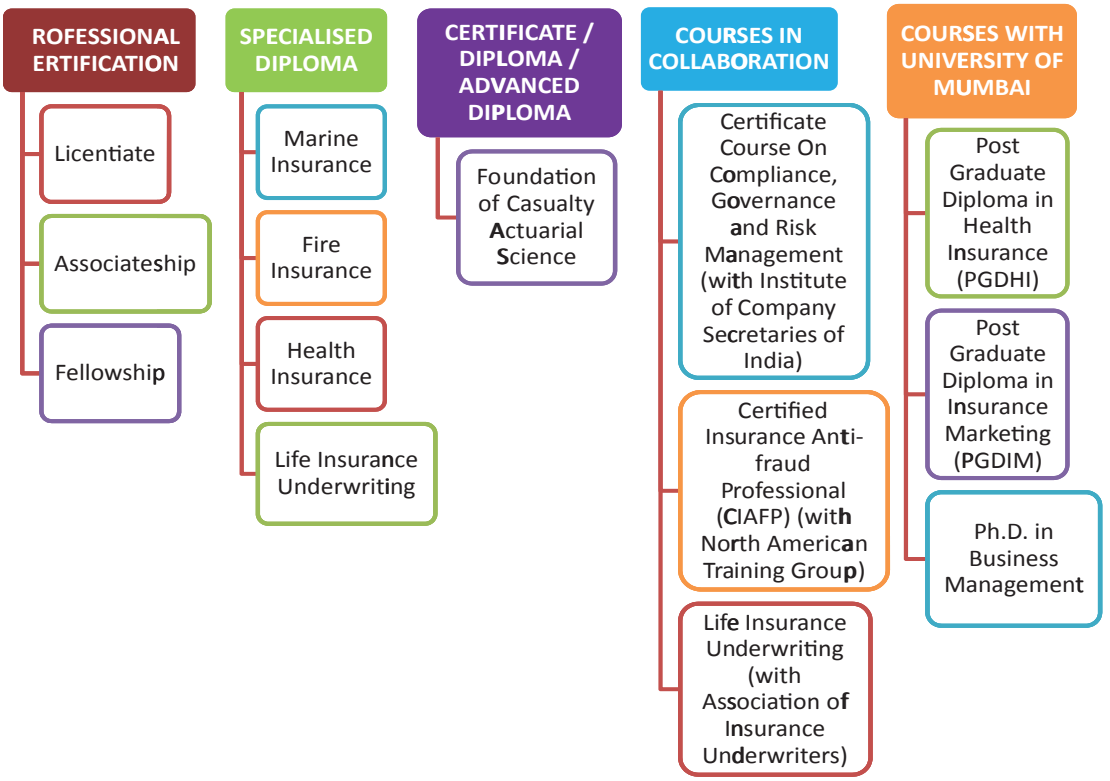
THE JOURNAL OF INSURANCE INSTITUTE OF INDIA

For Free Distribution
ISSN No. 2278-6759

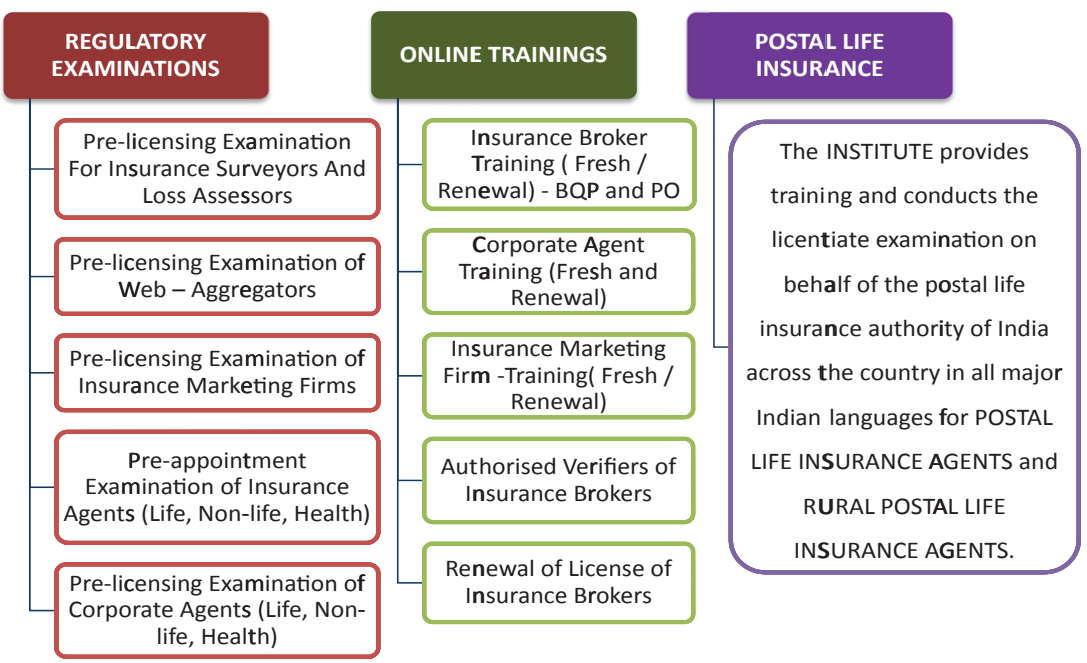
VOLUME NO. X ■ ISSUE NO. IV MUMBAI APRIL-JUNE - 2023

भारतीय बीमा संस्थान
INSURANCE INSTITUTE OF INDIA

COURSES OFFERED BY INSURANCE INSTITUTE OF INDIA



REGULATORY EXAMINATIONS - The Institute conducts online trainings and examinations authorized by the Insurance Regulatory and Development Authority of India (IRDAI)



CONTENTS

The Journal of Insurance Institute of India is registered in University Grants Commission - UGC CARE List.

The Journal of Insurance Institute of India

Since 1974 Volume

APRIL-JUNE - 2023

Printed and Published by
SNEHA VIKAS PEDNEKAR on behalf of INSURANCE INSTITUTE OF INDIA, Printed at
ACME Packs & Prints (I) Pvt. Ltd., Gala No. 16, Gr. Floor, Samkit Building, Sagar Signature Industrial Estate, Waliv Phata, Waliv, Vasai (East), District Palghar - 401 208.
and Published from
INSURANCE INSTITUTE OF INDIA, Plot No. C-46, G Block, Bandra-Kurla Complex, Bandra (East), Mumbai 400 051.
Editor: **P. Jaipuria**

Editorial Support, Design and Printing by
ACME Packs & Prints (India) Pvt. Ltd.

EDITORIAL

A bouquet of red or say pink roses has a certain look to it. This is because of the uniformity and together all of them give a bright picture. At the same time, a bouquet containing different types of flowers also gives a great look because of the variety of colours and designs. Such a bouquet, in fact, calls for a great amount of thought, design and arrangement. The sizes, shapes and colours may vary and therefore require greater imagination and skill in placing and tying them together.

This issue of The Journal of the Insurance Institute of India, is a non-theme-based issue. A bouquet of articles dealing with varied topics has been presented.

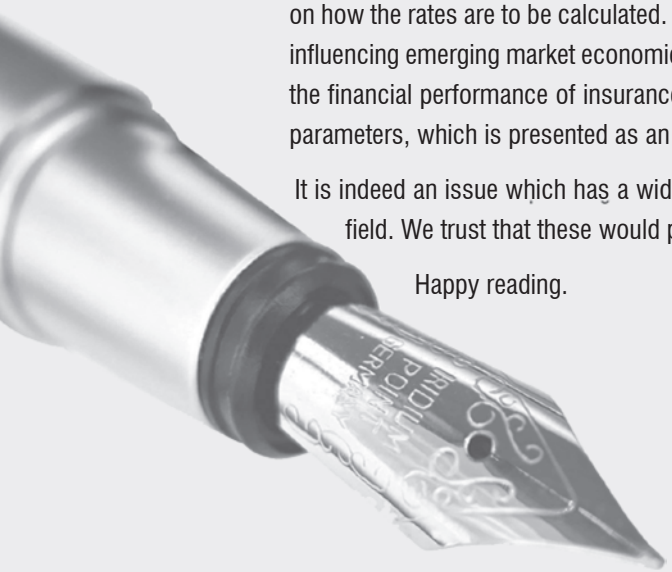
Insurance is in news nowadays because of litigation. Insurance is a specialised field. Insurance is a contract but there are many angles to these which one should know. This has been brilliantly brought out in the article Insurance Litigation: Latent Reasons. On the same subject but talking of another aspect is the article Litigation Management – A focus area in addressing claims leakage of insurers.

Digital technology has entered our life in a big way and encompasses almost all our activities. AI is a now the happening thing which is threatening to disrupt things. There are articles on these talking about developments in this field, as well as how it could be utilised in the insurance arena. Changes which are happening in the general insurance industry forms the basis for yet another article. Financial aspects of the ageing segment of the population are dealt with in an interesting article. On marketing, there are articles talking about micro insurance, growth. Growth, balancing the channel mix, factors affecting purchase and a study on factors influencing the decision to purchase of private health insurance policies.

There is a technical article on fire load calculation on Brewing facility, giving various aspects on how the rates are to be calculated. There is also an article on the economic growth factors influencing emerging market economies and another on whether size affects. Does size affect the financial performance of insurance companies. An analysis has been made taking a few parameters, which is presented as an article here.

It is indeed an issue which has a wide variety of subjects written by persons involved in the field. We trust that these would prove to be interesting and informative.

Happy reading.



Editorial Team

Addressing Ageing through Financial Gerontology[1]

Mohit Yadav
mohit.yadav@pfrda.org.in

Millind Khandate
millind.khandate750@pfrda.org.in

Abstract

Changing demography and ageing population can have a significant impact on the economic development of the country. In order to sustain growth, it is vital to understand the needs of the elderly to ensure their prolonged contribution. Financial Gerontology can not only help the policy makers in a holistic understanding of the socio-economic requirements of the silver generation but also empower the cohort with informative decision making to be better prepared for and during their retirement.

Keywords

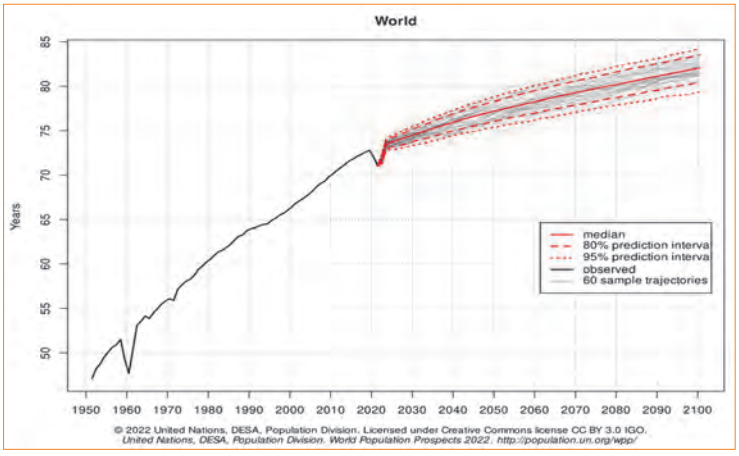
Financial Gerontology, Ageing, Retirement, Demography.

I. Ageing as a Phenomenon

Ageing is inevitable and along with it is the evolving dynamics of our surroundings. Individual's interactions with them translates into defining their socio-economic parameters and cumulatively that of society and country at large. A country is believed to be young when the majority of its population are in the working age group and supporting a relatively small population of elderly. However, a country is believed to be getting older when this phenomenon gets reversed. Changing demographics seek and demand the services that optimally cater to its burgeoning requirements. However, the country as a state needs to balance between the necessities of the demography and maintaining its comparative advantage as well. Fertility rate and mortality rate abetted with health care facilities have a direct impact on the longevity of the population, which eventually influences the cohort available for the labour force of the economy. With limited resources availability, the productivity of this labour force becomes vital to cascade the economic growth and overall well-being of the citizens.

II. Dwindling Demographic Dividend

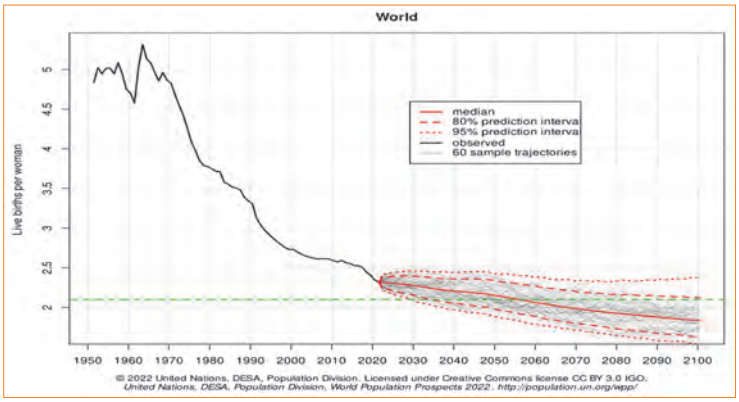
a. Longevity



1 ***Gerontology:*** *the scientific study of old age, the process of ageing, and the particular problems of old people.*
Source: Oxford languages

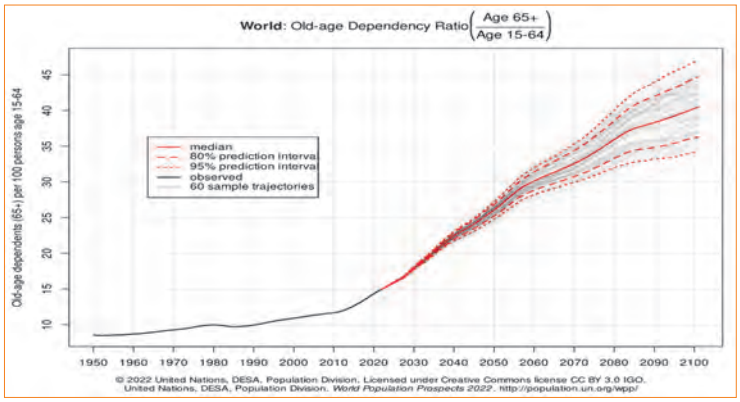
Many times, longevity and life expectancy are used interchangeably but there are differences in each of these terms. By definition, longevity refers to the duration of a person's life whereas life expectancy denotes the average remaining years of life that can be expected at a given age. Over the years, there has been a significant rise in life expectancy and globally it is expected that life expectancy at birth will rise from 72.8 years in 2019 to 77.2 years in 2050. With the advancements in technology and evolving health care facilities, the existing population' longevity is substantially improved. Such increase in longevity and decline in fertility rate may result in shrinking the working population and creates financial implications related to investments, savings, etc.

b. Declining Fertility Rate



Population growth is majorly impacted by the rate of fertility and mortality. In the recent decades, fertility rate or the average number of births per woman over a lifetime have declined markedly in many countries. As per United Nations (UN) reports, the average global fertility rate in 2021 stood at 2.3 births per woman, dipped from about 5 births per woman in the mid-twentieth century. The future fertility projections indicate that by 2050, the average global fertility rate is expected to decline to 2.1 births per woman. This fall in the fertility rate may create a ruffle in the labour force causing lower aggregate productivity and sluggish economic growth.

c. Old Age Dependency Ratio



Across the globe, generally, people aged between 15-64 years representing the working population and the ratio of people aged 65 years and older to the working population is defined as the old age dependency ratio. The number of working individuals supporting elderly population is declining over the years, exerting more pressure/burden on them. The former are the main contributors towards generation of revenue for the government in the form of tax, however, increase in government expenditures on pension and health care facilities for elderly has caused a menace on the public finances.

Recently, India has surpassed China to become the world's populous country. With a population of 1.4 billion, India still enjoying demographic dividend as people in the age group of 15-64 years comprises 67% of the population whereas only 6.4% represents the elderly. Life expectancy at birth in India is 69.7 years whereas life expectancy at 65 years of age is 14.7 years which are improving significantly with advancements in the health care systems. The fertility rate of India is declined from 5.90 in 1950 to 2.24 in 2020 and with the increasing longevity, the working-age population (15-64 years) will keep on reducing whereas there will be rise in elderly population. In other words, the old age dependency ratio will go up and will exert downward pressure on the GDP per capita growth.

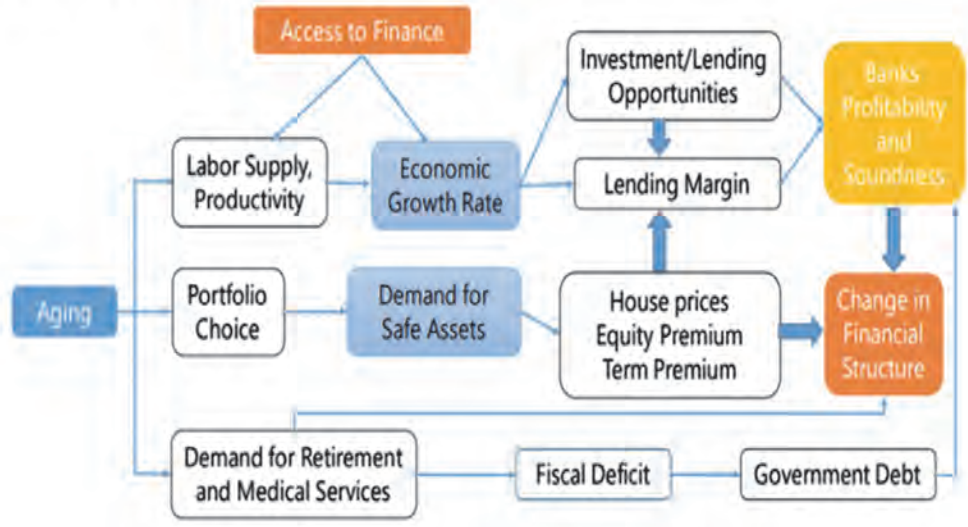
III. Effects of Population Ageing on Financial Sector

Labour being an important factor of production, directly impacts the Domestic Product of the country. Considering an inverse relationship, an ageing population can slow down the growth rate of the economies as already evident in case of many developed countries. The rising silver generation has its significant impact on the demand and supply side of goods and services with its peculiar requirements.

As per Indian Economic Survey 2021-22, labour force participation rate (LFPR) is 41.6% (56.34 crore), worker population ratio (WPR) is 39.8% (53.53 crore) and the unemployment rate is 4.2% (2.81 crore). But only 5.89 crore workforce have regular social security benefits leaving 47.64 crore without any formal pension arrangements.

International Monetary Fund (IMF), in its paper elucidates the phenomenon depicting the effects of population ageing on Financial Sector.

Aging can affect the stability and structure of the financial systems through its effects on economic growth, real interest rates, and risk premiums.



Source: IMF staff.

Source: By Staff of International Monetary Fund (2019), "Macroeconomics of Aging and Policy Implications"

The figure highlights that for financial systems, ageing can have direct effects on the labour supply/productivity, portfolio choice and demand for retirement and medical services. This in turn would have a domino effect on the economic growth rate, demand for safe assets, fiscal/ government debt and eventually prompting structural changes in the Financial systems. The stakeholders viz. the Government, industry, financial institutions, entities, service providers would be required to fine tune their offerings in order to be in sync with the evolving necessities of the cohort.

a. A dwindling demographic dividend restricts the number of people available for the labour market resulting in depleted productivity. A high percentage of elderly in the population would translate into an adverse old-age dependency ratio wherein a greater number of young people would be required to support the elderly. A reduced productivity along with the mentioned demographic changes would make the historical economic growth unsustainable with low probability of a rebound in the future unless intervened with adequate immigration policies. However, the magnitude of such an offset need to be in tandem with the economic requirements of the country.

b. Many studies conclude that the financial behavior of the people changes with their age. People at the age of retirement or after their working life *(60 - 65 years)* become more risk-averse as compared to their younger self. Ageing, in fact, influences their investment behaviour and people aged 60+ years are likely to spend less or keep a check on their unnecessary expenses due to income constraints. Investments of the ageing population are more inclined towards safer instruments such as Bank Deposits, Government Securities, etc. and the proportion of their equity portfolios gets suppressed significantly. Globally, life cycle funds are also offered in which asset allocation proportion in the portfolio gets rebalanced automatically as per the age of the person. With increase in age, the equity proportion gets reduced whereas the debt proportion gets enhanced. It is evident from an IMF study that aggregate savings is likely to decline with the rise in ageing population. As various countries are at various stages of demographic transition, having a n interest rate structure for the nation would be difficult to build a sustainable economy.

c. As per UN world population prospects 2022, the world's population is expected to touch 10 billion by 2059 with a growth rate of less than 1 percent in the coming decades. However, the ageing population in turn will grow at a rapid rate and is going to impact the fiscal sustainability of nations. Since this cohort won't be able to complement the working population due to various physiological reasons and work policies, their contribution towards revenue generation for the nation would become relatively insignificant. Governments in any nation spend resources on productive/ developmental activities from the collected tax revenue which is majorly contributed by the working population. But with the rise in the ageing population and declining fertility rate, the working individuals' number goes down in the economy and so the tax revenue collected by the government. Even though efforts are being made to bring in elderly people into the working population, because of their cognitive ability to adapt with new technologies and innovation in the workplace; contribution by the elderlies would be very less as compared to their younger counterparts. Government expenditure also constitutes non-developmental activities such as pension and healthcare spending which will continue to grow whereas the tax revenue decreases due to a smaller base of taxpayers *(working population)*.

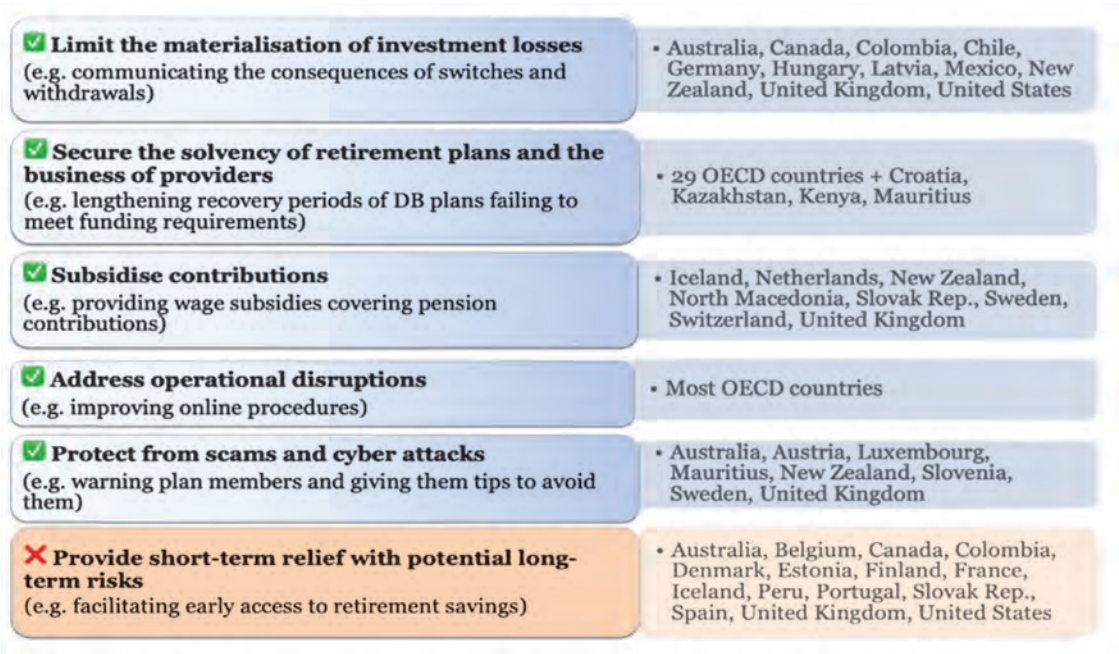
IV. Need of Financial Gerontology

Financial gerontology can be defined as investigating relations between finances and ageing (Erik and Klimczuk, 2020). Antolin and Despalins (2020) argue that Policy makers should communicate to members the importance of staying the course, keeping long-term investments plans. It took around two years for most countries, for the value of assets in retirement savings accounts, which experienced big valuation losses during the 2008 financial crisis, to recover to 2007 levels. Therefore, as long as people do not sell their assets, they do not materialise the losses and their portfolios eventually could recover and resume their long-term trend upwards.

As per the InterMiles 'Consumer Spending Sentiment Index Report', 90% of the Indian consumers witnessed a change in personal spending behavior since the onset of the pandemic. People placed greater emphasis on securing their future after the uncertainty and increased their spending towards financial instruments for investments and savings. Expenditure on the non-essential products/services witnessed a steep decline as consumer reduced their spending on travel (68%), entertainment (52%) and apparel (45%).

Since 2020, the pandemic has redefined how financial services (including retirement solutions) are sought and delivered.

Main Policy responses during COVID 19 that affect retirement savings



Source: Antolin P., Despalins R. (2020), Retirement savings in the time of COVID 19, OECD

The nuclearization of family structures has accentuated the need for robust retirement planning. The evidence from developed countries clearly indicates that with the changing demographics, the elderly cohort will have a significant socio-economic impact.

The retirement age across the countries are increasing, meaning people are not only living longer but also working for a considerably longer life span. The same would not only have a positive impact on labour force participation but also on the fiscal burden of the government in terms of health care finances and pensions.

The technological developments may have been a boon for the companies and for the younger generation but their adaptability has been challenging for the elderly. Such integration of platforms to offer an all-digital solution might be a resolution for the future elderly. However, its adaptability to the current elderly can be a daunting task. This vulnerability has also led to an increase in the number of frauds faced by them.

V. Financial Gerontology as an Enabler for Retirement

As per Irving (2016), "*By engaging with expert gerontologists, financial services organizations and their employees have an opportunity to understand the complex implications of increasing longevity and changing retirement norms, and to develop new products, services and communications strategies to enhance the client experience and increase client loyalty. By engaging with the financial services industry, gerontologists have an opportunity to inform members of their profession about the potential for financial solutions to improve lives, to incorporate financial education in the gerontology curriculum, and to develop alliances that can lead to program development, research funding, and new career opportunities.*"

a. To address the challenge of labour supply in the economy, few countries have contemplated increasing the retirement age. Such a policy decision would ensure that the desired labour supply remains intact with a prolonged productivity. It would also result in deferment of

retirement benefits and more constructive socio-economic engagement of the individuals who have already contributed in its development during the yester-years.

Financial Gerontology being a multidisciplinary area aims to preserve the financial health of the elderly. Financial Gerontologists can help in assisting the economic growth rate by keeping the productivity levels of the labour intact with minimal effects due to ageing. Intervention can be explored by way of technological improvements with involvement of such professionals and experts with a holistic understanding of the concept of ageing. Acemoglu and Restrepo (2017) claim that greater ageing could be associated with higher productivity if it ends up driving investment in the automation of production processes.

"Education becomes the key factor in solving the ageing and decreasing population, but education for life not only the formal education in school years. A more educated labour force, as statistics shown, may imply a reduced unemployment and higher activity and occupation rates that means more resources for social security systems in the future" (Serban, 2012). Financial Gerontologists can play an important role in financial education and development of curriculum for the needs of current and future elderly with the desired skillsets.

b. Living a longer and healthy life with dignity is desired by everyone in this world. But it is very difficult to predict how long a person is going to live and the costs associated with it. It is necessary to understand the new phase that would begin after the working life of an individual. As revealed earlier, the elderlies are risk averse when it comes to investments and their decision-making ability with respect to finances declines with age. At this juncture, a financial gerontologist can help them in planning their next phase of life differently; as elderlies major financial concern will be to have a check on their expenditure so that their wealth will last till remaining lifetimes.

   Many recent retirees have invested in the equities market in the hope of earning higher and faster returns. However, eventually recording losses on a fund that was accumulated over their productive years in their portfolio. With expertise of financial gerontologists, the elderly population will be able to invest in complex financial instruments as well which may bear better returns keeping risk factors in control. There are various instances where the elderlies are victimised by financial scams or identity theft and lose a considerable accumulated wealth; financial gerontologists can help them in recovering financially and emotionally by educating them about scamming and identity theft techniques, identification, protection and reporting[2].

c. With increase in longevity and grey population, the demand for retirement and medical services is bound to increase. Such escalation would tend to impact the fiscal deficit as well as the government debt by channelising more revenues to support the requirements of the elderly rather than utilising them for more productive sectors. It also demands innovative approaches to deliver retirement and medical benefits to the elderly cohort. Financial Gerontologists in assistance with the actuaries can help the government in understanding and quantifying the nuances of the consumer behaviour of the elderly in order to ensure that the benefits are provided in an affordable, adequate and sustainable manner. With behavioural and social know-how of the elderly, the industry service providers can also be advised to customise the process of the offerings ensuring convenience for the beneficiaries along with price and bandwidth optimisation from the service organisations.

2 Successful Ageing through Financial Empowerment (SAFE) was created by Dr. Peter Lichtenberg, PhD, director of the Institute of Gerontology at Wayne State University.

VI. Conclusion

Ageing being inevitable and a dwindling demographic dividend across the nations necessitates addressing the impending issues sooner than later. Financial Gerontology being an upcoming field of study and practice has an immense potential in terms of its direct and in-direct impact at macro as well as micro levels of the economy. Also, being multidisciplinary it cuts across the silos of the related domains. Abridging them can translate into greater and impactful synergies desirable for the welfare of the citizens. The expertise of such specialists can not only ensure better and sustainable quality of life for the individuals but also a prolonged labour supply in the economy with relatively higher productivity levels. However, the stakeholder needs to take cognisance of the requirements and demands of the cohort and provide offerings with innovative and customisable products and processes which can last till the lifetime of the beneficiaries.

References

- Antolin P., Despalins R. (2020), Retirement savings in the time of COVID 19, OECD
- E. Selecky, A. Klimczuk, Financial Gerontology, [in:] D. Gu, M.E. Dupre (eds.), Encyclopedia of Gerontology and Population Ageing, Springer, Cham 2020, pp. 1–5, https://doi.org/10.1007/978-3-319-69892-2_192-1.
- Economic Survey FY 2021-22, https://www.indiabudget.gov.in/budget2021-22/economicsurvey/index.php
- By Staff of International Monetary Fund (2019), "Macroeconomics of Aging and Policy Implications", https://www.imf.org/external/np/g20/pdf/2019/060519a.pdf
- United Nations Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022: Summary of Results. UN DESA/POP/2022/TR/NO. 3.
- Irving P. (2016), "New Frontier for Successful Aging: Financial Gerontology in the Spotlight at White House Conference on Aging", Milken Institute
- Roy A. (2012), Innovative approaches to manageing longevity risk in Asia: Lessons from the West, ADBI Working Paper Series, Asian Development Bank Institute, No. 353
- Wayne State University (2023), "Successful Aging through Financial Empowerment (SAFE)", https://iog.wayne.edu/outreach/success-after-financial-exploitation--safe-#:~:text=SAFE%20will%3A&text=Help%20older%20adults%20recover%20financially,financial%20scams%20or%20identity%20theft. Institute of Gerontology, Wayne State University
- Serban A. C. (2012), "Aging population and effects on labour market", International Conference on Applied Economics (ICOAE) 2012, Procedia Economics and Finance 1 (2012) 356 – 364
- Yoshino N., Kim C.J. and Sirivunnabood P. (2019), "Aging Population and its Impacts on Fiscal Sustainability", Asian Development Bank Institute, Think 20 Japan 2019.
- Consumer Spending Sentiment Index Report' by InterMiles, https://www.intermiles.com/pressroom.

* The views expressed are personal and do not necessarily represent that of the Authority.

Factors Affecting the Purchase Decision of Private Health Insurance Policy by the Middle - Income Group in West Bengal - A Logistic Regression Approach

Suchismita Paul
rs_suchismita@nbu.ac.in

Ms. Suchismita Paul is a UGC-NET Senior Research Fellow in the Department of Commerce and pursuing Ph.D. in North Bengal University under supervision of Dr. Soumitra Sarkar. She completed his M. Com (Accounting and Finance) in 2016 and worked as faculty in Commerce in a private college in Siliguri, West Bengal. Her research areas primarily focused on Healthcare Insurance and presented research paper in an international conference.

Dr. Soumitra Sarkar
soumitrasarkar@nbu.ac.in

Dr. Soumitra Sarkar is an Associate Professor of Commerce in the Department of Commerce of the University of North Bengal. Earlier he was an Assistant Professor of Commerce in Alipurduar College, West Bengal. He has to his credit a good number of research papers publish in national and international journals of repute and presented papers in various conferences He wrote books as well.

Abstract

Health insurance as a health financing mechanism especially in developing countries like India has a significant role. Private health Insurance is significant where the middle-income people get lesser options from the government to cover them for medical emergencies. Despite this; a significant portion of India's middle-income population is without any health insurance coverage. With this objective, an attempt was taken to investigate the Socio-Economic Variables, Health Insurance Knowledge, and Households' Perceptions of Health Insurance regarding the purchase of Private Health Insurance Policies. Data was obtained from middle-income households in seven Municipal Corporations in West Bengal. To identify 'Perception' variables Principal Component Analysis (PCA) is used and Logistic Regression Analysis showed Household income, Educational Qualification, Family Type, Health Insurance knowledge, and Households' perception of Quality of Service, Benefits, and Self-beliefs proved significant factors to influence the purchase of Private Health Insurance Policy.

Keywords

Private Health Insurance, Health Care Financing, Perception, Principal Component Analysis, Logistic Regression.

Introduction

The Healthcare sector in India is growing by providing advanced health care facilities with the help of infrastructural development. The doctor-population ratio is way ahead of 1:1000 as prescribed by the World Health Organization (WHO). As for every 921 people in the country, there is one doctor as of December 2019. With increasing urbanization and problems related to modern-day living in urban settings, currently, about 50 percent of spending on in-patient beds for lifestyle diseases – this has increased the demand for specialized

care (IBEF, Healthcare data, September 2020). Now, costs associated with these treatments along with treatment for traditional diseases, raises the question of affordability. The term ''Medical Inflation" can be defined as the increase in the average or unit cost of a healthcare service over historical period or increase in both utilization and the unit cost of services. Based on the report of The Economic Survey 2018-19 by Government of India, medical inflation was 7.14 percent in FY 2018-19. Several schemes like Rashtriya Swasthya Bima Yojana (RSBY) (2008); National Urban Health Mission (NUHM) (2013); National Rural health mission (NRHM) (2005) and in 2018 Ayushman Bharat – National Health protection Mission (AB-NHPM) were launched with an objective to provide equitable, affordable and quality health care to the vulnerable groups (Poor and vulnerable families, BPL families, unorganized workers) both in rural as well as urban areas. As these schemes were intended to provide health care facilities in subsidized rates or free to poor families for in-patient as well as out-patient care, middle income groups are left out. In such circumstances, the financing structure of healthcare is required to be noticed. For any treated ailments, 62.2 percent and 71.6 percent of the rural and urban population respectively utilize private hospitals or clinics for healthcare. In the case of hospitalization, 51.9 percent and 61.4 percent of the rural and urban population respectively utilize private hospital. Average medical expenditure in private hospital for treated ailments are much higher than other any other health care service provider. Average medical expenditure per hospitalization case in private hospitals is much higher- (almost 8 times) than govt./public hospitals in urban areas and in case of rural areas private hospitals are charging 4 times higher prices for the same (NSSO data, 75th Round). Again, child-birth surgical costs are also higher in the case of private hospitals than govt. hospital in both rural and urban areas (NSSO data, 75th Round). The overall utilization from the private sector is almost three times higher than the public sector at the all-India level and the choice of private sector is essentially not guided by quality or cost, but constraints of the public sector (Rout et al., 2019). In the light of escalating health care costs, coupled with demand for health care services, lack of easy access of people from low-income group to quality health care, health insurance is emerging as an alternative mechanism for financing health care (Anita, J., 2008). 79.5 percent of the rural population and 83.5 percent of the urban population use household savings/ income as major sources of finance for hospitalization but coverage for any health insurance schemes is very low. 80.9 percent of the urban and 85.9 percent of the rural population doesn't cover under any health insurance scheme. So, there is a growing potential for the health insurance industry to tap. Therefore, the middle-income groups (almost 600 million) who are not eligible to get insurance for subsidized rates can get covered through private health insurance policies.

Literature Review

Socio-Economic Variables

Private health insurance policies provide coverage for hospitalization and other specialized benefits as per the product type, which requires regular payment of premiums of varying amount in accord with policyholders' age group as well as health profile. One must have the capacity to pay for the premiums on a regular basis to keep it active and to avail the benefits.

Previous literature suggests that one's level of income or household income can be one of the determinants of purchase of health insurance. Bhat and Jain (2006) in a micro-insurance setting found income as a positive and significant variable for demand of health insurance. The target of Private Health Insurance Policy is the middle- and high-income groups who don't have access to micro insurance or subsidized national health insurance as the case in many countries. With regard to this, one interesting study on taking up private health insurance in Taiwan along with having access to national health insurance program asserts that people are willing to buy insurance as income increases (Liu and Chen, 2002). Another study on determinants of health insurance and hospitalization in Japan and US, family income found to be positive and significant (Yamada et al., 2014). Among the other socio-economic variables Age and education (Bhat and Jain, 2006; Liu and Chen, 2002) and gender, marital status (Liu and Chen, 2002) found positive and significant. Though socioeconomic

variables affect the purchase decision, limitations do exist. Contemporary literature also found other factors to be significantly associated with the purchase decision. Families and individuals may be willing to buy insurance if health expenditure is high. Then in 2006, Bhat and Jain undertaken Present healthcare expenditure as a variable in the study and showed it as a statistically significant factor affecting health insurance purchase decision and their perception about future healthcare risks and expenditure played an important role in affecting health insurance purchase decision.

Insurance Knowledge

In India, Health Insurance industry are growing through a phase of retarded growth which is attributable to low awareness of insurance as a concept (Krishnamurthy et al., 2005). Studies suggest effective campaigns highlighting the differences between health and financial security are necessary to highlight the need for health insurance among the population (Cognizant 20-20 insights,2014). Bhat and Jain (2006) and Akotey et al. (2011) noted that information and education about the concept of insurance will build more awareness and hence insurance knowledge came out to be a positive and significant factor influencing the probability of buying health insurance.

Perception

In marketing and consumer behavior studies, several studies explored perceived product features, price, quality, and their perceived value positively associated with willingness to buy. Customers' perceived value has been pointed out as an important determinant of purchase intent and willingness to buy (Anderson R., 1973; Beneke et al., 2013; Diallo et al., 2013; Dodds et al., 1991; Lichtenstein et al., 1993; Wu, S. and Lo, C., 2009). Perception of households as regards cost, coverage of illnesses, coverage of services, quality, trust on insurers was incorporated as qualitative variables using probit model and coverage of illnesses along with knowledge and expectation of future illness expenditure stood as significant statistically. The more positive perception related to these variables the more probability to buy health insurance (Bhat and Jain, 2002). Another study (Akotey et al.,2011) also confirmed that there is significant and positive impact of perception as regards insurance providers or insurers on the demand for insurance. Jehu-Appiah et al. (2012) introduced perception variables that may influence enrolment decision of household in the national health insurance scheme in Ghana which revealed that positive perception on benefits of NHIS, Convenience of NHIS is more likely to join than uninsured, on the contrary negative perception as regards price of insurance i.e., high price and extra charges and negative peer pressure significantly showed lower odds to join. Mathur et al. (2018) used structural equation modelling to examine the influence of perception and beliefs on preference to buy private health insurance (measured through households' annual spending on health insurance). Benefits, Convenience, Quality of service, Self-beliefs, Trust, Plan costs and attitude towards healthcare provider showed significant factor loadings with perception and beliefs which in turn contributes significantly to influence preference to invest in PHI plans. Improved customer service and role of agents as an advisor to the customer instead of being a mere seller of policies are also important for increasing penetration in this sector (Krishnamurthy et al., 2005).

Objectives of the Study

The earlier literatures identified the factors which might be responsible for deciding to enrol for national health insurance programmes and micro-insurance in various countries including India. But very few studies done in India particularly in the area of Private Health Insurance were carried out despite of the fact that Private Health Insurance policies are significant for providing coverage for medical emergencies to middle income households. In India around 40.5% of eligible individuals without any health coverage denoted by missing middle by NITI Aayog.

Therefore, this study aiming towards middle income households' and

I. to explore the perception factors that households' have about Private Health Insurance purchase.

II. to find the significant factors affecting health insurance purchase decision.

III. to give recommendation on the basis of above findings to increase the gap of coverage lying among the targeted households.

Methodology

The study is conducted with primary data collected from the middle-income households of West Bengal. As per Consumer Pyramid Household Survey by CMIE (Centre for Monitoring Economy), half of the total population of India belongs to middle class households. That survey classified income groups and middle-class households earns between ₹ 1,00,000 to ₹ 10,00,000 or 1 million in a year. Households were chosen randomly from 7 Municipal Corporations of West Bengal. As per Cochran (1997), minimum sample requirements for population over 10,00,000 is 384. Following that, responses were gathered from 490 households, 70 from each Municipal Corporation area. Our final sample include 404 households whose responses were complete and usable. Households are indicated as 'Insured' if they have bought at least one private health insurance policy and otherwise 'uninsured'.

Health Insurance Knowledge: The section on health insurance knowledge consisted of 11 questions. A five-point Likert scale ranging from '1=strongly disagree to '5=strongly agree' was used by the respondents to express their level of knowledge and has been used a continuous variable in the quantitative analysis.

Perception of Households About Health Insurance: Statements adapted from previous literature (modified and added according to features of Private Health Insurance Policy) related to Perception about Health Insurance were collected using five-point Likert scale ranging from '1=strongly disagree to '5=strongly agree' used by the respondents.

Empirical Model

The principal component analysis (PCA) is run to identify respondent's perception about private health insurance policies. PCA is a multivariate statistical method for reducing a large number of variables to fewer underlying dimensions or factors (Jehu-Appiah et al., 2012, as cited in Field ,2009). The main model included 22 perception statements. The Kaiser-Meyer-Olkin measure (KMO) of sampling adequacy and bartlett test of sphericity were first applied to indicate appropriateness of this analysis. The KMO was 0.852 and bartlett test was significant ($p<0.001$). Using Varimax rotation with Kaiser normalization 22 perceptions were categorized into 5 factors (underlying dimensions). Factors were maintained if their Eigenvalues exceeded 1 (reflecting the importance of a factor), and if factor loadings are greater than 0.55 and four to six items loaded onto each factor. Cronbach's alpha test was conducted to find internal consistency and was 0.841, which is highly acceptable (Heir et al. 2006). Factor scores were saved as regression variable and used in further analysis using logistic regression.

Table:1 Variables and Definitions

Demographic Variables	Description
Status of Private Health Insurance (PVHI) Purchase	Uninsured=0; Insured=1
Monthly Household Income (in ₹)	8,000-19,000=1; 19,001-30,000=2; 30,001-41,000=3; 41,001-52,000=4; 52,001-63,000=5; 63,001-74,000=6; 74,001-85,000=7
Annual Average Health Expenditure of the Household (in ₹ Other than hospitalization)	Less than 30,000=1; 30,000-50,000=2; 50,001-70,000=3; 70,001-90,000=4; 90,001-1,10,000=5; Greater than 1,10,000=6
Educational Qualification (Highest in the family)	Secondary=1; Higher Secondary=2; Graduation=3; Post Graduation=4; Other higher academic or professional qualification=5
Type of Family	Nuclear=1; Joint=2

Table:2 Results of Principal Component Analysis

Factor: I **Service Quality** (Variance Explained: 31.133; Eigen Value: 6.849)	Factor Loadings
Insurance agents and employees are knowledgeable and careful in handling customer's requests.	.790
Insurance claim settlement procedure is simple, transparent and timely i.e., hassle free for customers	.756
Services are delivered in promised time	.729
Customer-friendly and dedicated and striving for minimizing customer's efforts at the time of emergency and claim settlement	.726
Companies provide timely information and communication facilities are adequate	.694
Healthcare facilities provided in the network hospitals are adequate.	.540
Factor: II **Cost of Policy** (Variance Explained: 13.500; Eigen Value: 2.970)	
There are no extra charges other than the premium	.728
Reasonably priced compared to the product offerings	.727
Policy is better designed in terms of illnesses which are covered	.658
Premium for the health insurance policies offered by the companies are affordable	.641
Factor: III **Self- Beliefs** (Variance Explained: 7.054; Eigen Value:1.552)	
I am wealthy enough to pay for hospitalization costs so there is no need to purchase health insurance (R)	.833
I am healthy so I cannot get any illness (R)	.829
It will not give me any monetary return if not hospitalized, so better to save money in other avenues (R)	.774
Health is a matter of fate, so buying health insurance won't prevent its consequence (R)	.569
Factor: IV **Health Insurance Benefits** (Variance Explained: 6.423; Eigen Value:1.413)	
I can save money from paying hospital bills in case of medical emergency	.825
I can get tax benefit by purchasing health insurance policy	.680
Don't have to borrow money to pay for hospital bills	.594
It provides long term financial security against adverse health outcome	.593
Factor: V **Convenience of Purchase** (Variance Explained:5.064; Eigen Value:1.114)	
Enrollment process is simple and uncomplicated	.754
Easier to select provider and approach them for getting details regarding policy purchase	.623
Company office and office of the sales representatives of the insurer companies are easier to locate	.619
Easier to choose an appropriate plan	.587

Model Specification

Logit function is used to define this model as the dependent variable is categorical. The objective is to evaluate the factors that influence the purchase decision of private health insurance policy. The binary response of either purchasing PVHI or not purchasing and a set of predictor variables are defined by logit function, as follows:

$$\text{Logit}\ (p_i) = \text{Ln}() = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots + \beta_n X_n + e$$

The probability of either purchasing health insurance or not purchasing is represented and parameter (0) estimates log odds in the outcome for the reference group, and parameters (X) estimate differential in the log odds in the outcome for different predictors. The results of logistic regression are presented by odds ratio. A positive value of β reflects the more likelihood of dependent variable to one and vice versa. The analyses were performed using the SPSS 25.

Empirical Analysis

Table 3 shows 51% of the respondents were having educational qualification of post-graduation or equivalent in their household. 32.9% and 28.7% of the respondents had an monthly household income between Rs.8000 to ₹ 19000 and Rs.19,000 to ₹ 30,000 respectively. Majority (70.8%) of the households had annual average health expenditure of the household less than ₹ 30,000. 69.1% of the Household is nuclear in nature. Out of the total respondents 44.6% households had atleast one private insurance policy in their family i.e. Insured.

Table:3 Characteristics of the Respondents

Descriptive (N=404)		Percentage
Educational Qualification	Secondary	3.0
	Higher Secondary	4.2
	Graduation or equivalent	31.7
	Post- Graduation or equivalent professional qualification	51.0
	Other higher academic or professional qualification	10.1
Household Income Monthly (₹)	8,000-19,000	32.9
	19,000-30,000	28.7
	30,001-41,000	12.1
	41,001-52,000	9.9
	52,001-63,000	4.0
	63,001-74,000	6.2
	74,001-85,000	6.2
Annual Health Expenditure (₹)	<30,000	70.8
	>1,10,000	17.1
	30,000-50,000	5.0
	50,001-70,000	3.5
	70,001-90,000	2.0
	90,001-1,10,000	1.7
Type of Family	Nuclear	69.1
	Joint	30.9

Table 2 presents results of Principal Component Analysis. 22 items that were clustered into 5 underlying dimensions or factors and explained 63.173% of total variance. The factors extracted were, Service Quality of Companies, Cost of Policy, Self-Beliefs, Benefit of Health Insurance and Convenience of Purchase. The scores were reversed for the Self-Belief statements as they were negative statements before running the principal component analysis.

Table:4 Logistic Regression Results

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Monthly Household Income	**.160**	.074	4.622	1	**.032**	**1.173**	1.014	1.357
	Annual Health Expenditure	**.022**	.119	.034	1	**.854**	**1.022**	.809	1.292
	Educational Qualification	**.366**	.166	4.888	1	**.027**	**1.442**	1.042	1.995
	Insurance Knowledge	**.141**	.024	35.642	1	**.000**	**1.152**	1.099	1.206
	SQ	**.291**	.128	5.152	1	**.023**	**1.338**	1.041	1.721
	COST	**-.337**	.136	6.145	1	**.013**	**.714**	.547	.932
	Self-belief	**.317**	.133	5.710	1	**.017**	**1.373**	1.059	1.780
	BENEFIT_HI	**.384**	.153	6.334	1	**.012**	**1.468**	1.089	1.980
	Convenience	**-.179**	.127	1.989	1	**.158**	**.836**	.652	1.072
	Type of your family (1)	**-1.330**	.303	19.273	1	**.000**	**.264**	.146	.479
	Constant	**-6.376**	1.182	29.102	1	**.000**	**.002**		

Table:5 Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
408.500[a]	.305	.408

Table:6 Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	146.761	10	.000
	Block	146.761	10	.000
	Model	146.761	10	.000

Factors Affecting Insurance Status (Logistic Regression Analysis)

The results of logistic regression (Table:4) showed Household Income, Educational Qualification, Type of Family to be significant factors influencing decision to purchase private health insurance. The perception related to Quality of Services, Benefit of Health Insurance, Cost of Policy and Self-Beliefs were stood significant shaping the decision of households to purchase health insurance policy. To analyse the effect of Perception Variables on decision to purchase Health Insurance Policy, Coefficients and Odds ratios {Exp(B)} was reported. The model gave pseudo R^2 values .305 (Cox&Snell) and .408(Nagelkerke). The Log Likelihood Ratio (LR) statistic is significant at $p<0.001$(Table 5&6) which means at least one independent variable in the model has a coefficient different from zero. This two goodness of fit measure indicates that model is a good fit. Household Income stood positive and significant at $p<0.05$ showing an odds ratio of 1.173, means every unit increase in this factor, the decision to purchase insurance will increase by 1.173 times. Annual Health Expenditure is positive but not significant. Educational qualification stood positive and significant at $p<0.05$ showing an odds ratio of 1.442. Type of Family, where reference category is nuclear a negative and significant coefficient ($p<0.001$) implies nuclear families tends to purchase health insurance than Joint families. Knowledge of Health Insurance is positive and significant at $p<0.001$, Odds ratio=1.152 implies one unit of increase in knowledge about health

insurance leads to purchase of health insurance policy by 1.152 times. Among the perception factors, Quality of services and benefit of health insurance is positive and significant at $p<0.05$ with odds ratios of 1.338 and 1.468 respectively. Increase in Positive perception related to quality of services provided by insurers and benefits of Health Insurance leads to purchase of health insurance policy. Cost of Insurance Policy stood significant at $p<0.05$ (OR=.714) but negative which implies those who have positive perceptions about cost features of the family less likely to purchase health insurance policy. Self- Beliefs (Reversed) stood positive and significant at $p<0.05$ with OR= 1.373 implied households not having negative beliefs likely to purchase private Health Insurance Policy. Convenience of purchase is not significant.

Discussion of the Results

The findings highlighted factors that impact people's decisions to purchase health insurance.

Demographic Factors

- Household Income was found to be both positive and significant requiring the insurers' attention to the question of why lower income groups, on average, tend not to acquire PVHI. This may be the case since the premium amount charged by companies may exceed their expectations and budget. This result is in accordance with findings of Bhat and Jain (2006); Liu and Chen (2002); Yamada et al. (2014).
- Households with more formal educational degree can read, understand, and interpret better the mechanism of health insurance compared to lower formal literacy groups and are more likely to buy it.

Knowledge about Insurance

In our study knowledge about health insurance found to be positive and significant which is a very important matter to be taken care. How much people are aware about the health Insurance and its indemnity-based feature and how much they know about the insurable risks really matters in deciding health insurance purchase. Life Insurance penetration ratio is higher than health insurance in India (IRDAI Annual Report, 2018-19). Seventy percent of the Indian insurance market is still dominated by money-back plans and the consumer still perceives insurance as a 'saving device' (Krishnamurthy et al., 2005). More knowledge about the terminologies, understanding the policy will help them in making informed choice.

Perceived Benefits of health Insurance

Understanding the benefits of health insurance will Positively impact purchase decision of households of Private Health Insurance policy. When people understand what utility health insurance will provide at the time of illness it will increase the likelihood to purchase.

Self -Beliefs

Self -Beliefs statements like "Health is a matter of fate, so buying health insurance won't prevent its consequence"; "I am healthy so I cannot get any illness", "It will not give me any monetary return if not hospitalized, so better to save money in other avenues", "I am wealthy enough to pay for hospitalization costs so there is no need to purchase health insurance" were used after reversing the responses scores. Positive and significant coefficient implied households not having negative thinking will purchase health insurance. This is supported by previous literatures (Jehu-Appiah et al., 2012; Mathur et al., 2018). Now, here, companies, the IRDAI, and the government can play a proactive role in educating people about the advantages of holding a health insurance policy and influencing public perception.

Cost of Policy

Cost of policy shows odds ratio less than 1 and significant which implies those who think cost of policy is reasonable and affordable are less likely to buy health insurance. This signifies that insured group also believe premium is high that is charged by the companies.

Service Quality

Perceived service quality of insurers as a significant and positive factor emphasized the importance of quality service. Hassle free claim settlement, proper and timely query handling, healthcare facilities in the network hospitals, Empathetic behaviour at the time of emergency can create positive perception among insured and potential customers can build up their perception that health insurance

companies are reliable, trustworthy, dependable. Trustworthy health insurance information can be transmitted to prospective buyers more through Inter-personal sources than other media channels like Television, newspaper, magazine/ books (Furtado et al., 2016).

Conclusions and Suggestions

Health Insurance is evolving as an important tool of financing health care costs and to tap the potentiality of the industry insurers, healthcare providers, regulators (IRDAI) and definitely government should come up with measures to give coverage to the uninsured middle-income group of our country. India's Health Insurance penetration ratio in terms of coverage is less than 1% of the country's GDP. Proportion of population spending more than 10% of household consumption or income on health care expenditure. O-O-P (Out of pocket) healthcare expenditure in India was 17.331 percent (as per 2011 census) and 4.14 percent of population of India pushed below the poverty line by O-O-P healthcare Expenditure.

In these contexts, the study is significant which highlighted the significant factors policymakers and practitioners must pay careful consideration to these in order to increase the prevalence of health insurance among the middle-income group people in West Bengal.

The following points can be taken into consideration by the stakeholders in the insurance industry in their policy development, policy formulations and implementations.

Insurance companies with the help of IRDAI, should focus on developing innovative and comparatively low-cost health insurance products which can attract to the people with lesser income and it will increase the customer base which in turn lead to better risk-pooling. Again, the products should contain additional benefits, incentives by which potential and current customers can be assured the cost-benefit of their policy. To ensure more subscription flexibility in payment options should be encouraged, payment of premium in easy small instalments.

Fig:1 Key suggestions for increasing health insurance penetration based on the research

Source: Author (s)

Health insurance is basically very complex product to purchase. Lot of jargons, fine prints, not very easy to understand, interpret and making informed choices on the basis of such understanding. People with low formal literacy and less English proficiency restrict themselves to indulge to shop for such tough products. So, what companies can do here, making documents in simpler terms, highlight the important most terms that impact their claim settlement like, risk-pooling, waiting period, pre-specified diseases, co-payment, deductibles, pre & post hospitalization cover, room-rent clause, sub-limit etc. Application forms, advertisements, policy document can be made in multiple regional languages.

This study suggests important recommendations that can be used to improve awareness and bring positive perceptions towards health insurance. To make people understand the benefits about health insurance and remove non-negative and unrealistic beliefs, comprehensive educational programs should be conducted by IRDAI and Govt. should promote these. Many countries proved the successful outcome of such programs.

Since, health insurance policies required renewal very year, quality of services and satisfaction plays a crucial role in forming existing customers to loyal customers. How the agents, employees support them at the time of emergency creates trust among consumers and through word-of-mouth communication it again will create field for potential customers. The process of claim settlement,

significant attention should be given for its standardisation. Technology intervention like blockchain, big data analytics, Artificial intelligence can be implemented for better risk-underwriting, easy claim settlement processes. Currently, active Internet users and monthly active Social Media users in India has reached to 658 million and 467 million respectively (Basuroy,2022). Digital marketing here can play a catalytic role to reach out to many potential customers at comparatively lower costs. TJ

References

1. Akotey, O. J., Osei, K. A., & Gemegah, A. (2011). The demand for micro insurance in Ghana. The Journal of Risk Finance.
2. Anderson, R. E. (1973). Consumer dissatisfaction: The effect of disconfirmed expectancy on perceived product performance. Journal of marketing research, 10(1), 38-44.
3. Anita, J. (2008), February. Emerging health insurance in India–an overview. In 10th Global Conference of Actuaries (pp. 81-97).
4. Basuroy, T. (2022). Internet Usage in India- Statistics & facts. Internet usage in India - statistics & facts | Statista.
5. Bhat, R., & Jain, N. (2006) Factoring affecting the demand for health insurance in a micro insurance scheme.
6. Cochran, W. G. (1977). *Sampling techniques*. John Wiley & Sons.
7. Cognizant 20-20 insights. February, 2014. URL: Healthcare Insurance Evolution in India: An Opportunity to Expand Access (cognizant.com)
8. Diallo, M.F., Chandon, J.L., Cliquet, G. and Philippe, J. (2013). Factors influencing consumer behaviour towards store brands: evidence from the French market. International Journal of Retail & Distribution Management.
9. Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. Journal of marketing research, 28(3), 307-319.
10. Efron, R. (1969). What is perception? In Proceedings of the Boston Colloquium for the Philosophy of Science 1966/1968 (pp. 137-173). Springer, Dordrecht.
11. Ellis, R. P., Alam, M., & Gupta, I. (2000). Health insurance in India: prognosis and prospectus. Economic and Political weekly, 207-217.
12. Furtado, K. S., Kaphingst, K. A., Perkins, H., & Politi, M. C. (2016). Health insurance information-seeking behaviors among the uninsured. *Journal of Health Communication*, *21*(2), 148-158.

13. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006), Multivariate Data Analysis (6th ed.). Upper Saddle River, N.J.: Pearson Education Inc.

14. Indian Healthcare Industry Report. IBEF, 2020. URL: Healthcare Industry in India, Indian Healthcare Sector, Services (ibef.org)

15. Jehu-Appiah, C., Aryeetey, G., Agyepong, I., Spaan, E., & Baltussen, R. (2012). Household perceptions and their implications for enrolment in the National Health Insurance Scheme in Ghana. Health policy and planning, 27(3), 222-233.

16. Key indicators of Social Consumption in India: Health (NSS 75th Round). NSSO. Government of India. New Delhi, 2019.

17. Krishnamurthy, S., Mony, S. V., Jhaveri, N., Bakhshi, S., Bhat, R., Dixit, M. R., Maheshwari, S., & Bhat, R. (2005). Insurance Industry in India: Structure, Performance, and Future Challenges. Vikalpa, 30(3), 93–120.

18. Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: a field study. Journal of marketing research, 30(2), 234-245.

19. Liu, T. C., & Chen, C. S. (2002). An analysis of private health insurance purchasing decisions with national health insurance in Taiwan. Social science & medicine, 55(5), 755-774.

20. Mathur, T., Das, G., & Gupta, H. (2018). Examining the influence of health insurance literacy and perception on the people preference to purchase private voluntary health insurance. Health services management research, 31(4), 218-232.

21. Mathur, T., Paul, U. K., Prasad, H. N., & Das, S. C. (2015). Understanding perception and factors influencing private voluntary health insurance policy subscription in the Lucknow region. International journal of health policy and management, 4(2), 75.

22. Medical inflation and health insurance products in India: Current practices and the way forward. Aggarwal, R., and Buckle, J. (July, 2020) Milliman White Paper. Milliman. URL: Medical inflation and health insurance products in India: Current practices and the way forward (milliman.com)

23. Rout, S. K., Sahu, K. S., & Mahapatra, S. (2019). Utilization of health care services in public and private healthcare in India: causes and determinants. International Journal of Healthcare Management, 1-8.

24. Sharma, S. Y. (2022). Middle Income households account for largest chunk of India's unemployed Population: CMIE. The Economic Times. https://economictimes.indiatimes.com/jobs/middle-income-households-account-for-largest-chunk-of-indias-unemployed-population-cmie/articleshow/90563660.cms?from=mdr

25. World Health Organization. (2020). Global spending on health 2020: weathering the storm. World Health Organization. https://apps.who.int/iris/handle/10665/337859.

26. Wu, S. I., & Lo, C. L. (2009). The influence of core-brand attitude and consumer perception on purchase intention towards extended product. Asia Pacific Journal of Marketing and Logistics.

Investing In Digital Communication Tools for Increasing Penetration: How Social CRM Can Elevate the Prospects of the Insurance Sector

Srinidhi Venkatesh
venkatesh.srinidhi@gmail.com

Ms. Srinidhi is B.Com (Honours) Graduate, from Christ (Deemed to be University), Bangalore. She aspire to be a Chartered Accountant and further her passion in Sustainable Strategic Management. She has completed three years of articleship training from K. P. Rao & Co. Chartered Accountants, Bangalore. Her writing is a pursuit to apply what she learn theoretically to different contexts of the global economy.

Abstract

Social CRM is used by businesses to gather consumer information, interact with prospects, and foster client loyalty. Companies can offer individualised customer care by classifying customers based on their purchasing requirements, habits, and history, as well as their comments on your goods and services.

In order to provide insight into customer interactions with a company and to raise the level of customer engagement, social CRM connects social media platforms with customer relationship management (CRM) systems. The pace of traditional CRM is set by the brand, whereas the pace of social media CRM is set by the user. This is the key distinction between traditional CRM and social CRM. Expectations from customers are rising and will keep rising. Today, the majority of people express themselves through social media, and managing customer relations through the most popular platform guarantees maximum visibility for a business.

Social CRM tools can help insurance companies build stronger relationships with their customers. By engaging with customers on social media, insurers can create a more personalized experience and provide more relevant information to their customers. This can help build trust and loyalty among customers. Insurance companies can use social CRM tools to provide proactive customer service. By monitoring social media conversations, insurers can identify potential issues and reach out to customers to resolve them before they become a problem. This can help insurers improve their customer satisfaction and reduce customer churn.

Keywords

CRM, Social CRM, insurance, Penetration, Digitalization, Customer Loyalty.

Introduction

Social CRM (customer relationship management) is a business strategy that involves using social media and other online channels to connect with customers, build relationships, and manage customer interactions and data. Social CRM allows companies to interact with customers in real-time and gather valuable insights about their preferences, behaviours, and needs. There are a number of ways that companies can use social CRM to improve their customer relationships, including:

Social listening: Companies can use social media monitoring tools to track and analyse customer conversations and sentiment in real-time. This can help them understand what customers are saying about their brand, products, and services, and identify areas for improvement.

Customer service: Companies can use social media channels to provide customer service and support,

responding to customer inquiries and complaints in real-time. This can help improve customer satisfaction and loyalty.

Lead generation: Companies can use social media to identify and connect with potential customers, and collect data about their preferences and needs. This can help improve lead generation and sales efforts.

Personalization: Companies can use data collected through social CRM to personalize their marketing efforts and tailor their messaging and offers to individual customers. This can help improve customer engagement and loyalty.

Insurance companies can leverage social CRM in several ways to improve their customer relationships and increase customer satisfaction. Social media platforms provide an excellent opportunity for insurance companies to engage with their customers and prospects. By leveraging social CRM tools, insurance companies can monitor social media conversations about their brand, products, and services and respond to customers' queries, complaints, and feedback.

Insurance companies can use social CRM tools to gather valuable customer insights from social media platforms. By monitoring customer conversations on social media, insurance companies can identify customer pain points, preferences, and trends. This information can help insurers improve their products and services and develop new products that meet their customers' needs.

Social CRM is more of a customer involvement strategy. Social CRM not only monitors interactions on social media and review sites, but also sales discussions between customers and the company. By the use of the consumer's favourite social media platform, social CRM offers quick customer service and allows users to quickly share their experiences with millions of online users.

Indian Insurance Industry

The insurance industry in India has grown significantly in recent years, with the total premium collected by insurance companies in India reaching INR 5.86 trillion (approx. USD 78.8 billion) in 2020-21. The industry is expected to continue to grow in the coming years, driven by factors such as increasing awareness about the importance of insurance, a growing middle class, and rising incomes.

The life insurance sector in India is a growing industry, with a wide range of products and services offered by both public and private sector insurance companies. However, the penetration of life insurance in India is relatively low compared to other countries.

According to the Insurance Regulatory and Development Authority of India (IRDAI), the life insurance penetration in India was 3.49% in 2020-21. This means that the total premium collected by life insurance companies as a percentage of the country's gross domestic product (GDP) was 3.49%.

There are a number of factors that contribute to the low penetration of life insurance in India. These include a lack of awareness about the importance of life insurance, a low savings rate, and the high cost of insurance products.

However, the life insurance sector in India is expected to grow in the coming years, driven by factors such as increasing awareness about the importance of insurance, a growing middle class, and rising incomes. The government of India is also taking steps to promote the growth of the life insurance sector, such as allowing foreign direct investment in the sector and promoting the use of insurance products as a savings and investment tool.

Penetration of Non-Life

Non-life insurance, also known as general insurance, covers risks other than death or disability, such as risks to property, health, and liability. The penetration of non-life insurance in a country can be measured as the total premium collected by non-life insurance companies as a percentage of the country's gross domestic product (GDP).

In India, the non-life insurance sector is a growing industry, with a wide range of products and services offered by both public and private sector insurance companies. According to the Insurance Regulatory and Development Authority of India (IRDAI), the non-life insurance penetration in India was 1.35% in 2020-21. This means that the total premium collected by non-life insurance companies as a percentage of the country's GDP was 1.35%.

There are a number of factors that contribute to the low penetration of non-life insurance in India. These include a lack of awareness about the importance of non-life insurance, a low savings rate, and the high cost of insurance products.

The government of India is also taking steps to promote the growth of the non-life insurance sector, such as allowing foreign direct investment in the sector and promoting the use of insurance products as a savings and investment tool.

History of Social CRM

Social CRM (Customer Relationship Management) has evolved over the years, and its history can be traced back to the emergence of social media in the early 2000s. The first social media platform, Six Degrees, was launched in 1997. However, it was not until the mid-2000s that social media platforms like Facebook, Twitter, and LinkedIn gained widespread popularity. In 2007, Marc Benioff, the CEO of Salesforce.com, introduced the concept of Social CRM at the company's annual Dreamforce conference. This marked the beginning of a new era in CRM, where businesses began to integrate social media data into their CRM systems. In the following years, social CRM continued to evolve, with more and more businesses adopting the technology to engage with customers and prospects on social media platforms. Social CRM tools and platforms like Hootsuite, Sprout Social, and HubSpot emerged, providing businesses with the ability to manage their social media interactions more effectively. In recent years, social CRM has become more sophisticated, with the integration of big data and AI technologies. This has enabled businesses to gain deeper insights into customer behaviour and sentiment, and to automate certain aspects of their social media engagement.

Social CRM (Customer Relationship Management) has been evolving in India over the past decade. Social media platforms like Facebook, Twitter, and LinkedIn gained popularity in India in the late 2000s and early 2010s. Indian businesses began adopting social CRM technologies in the mid-2010s to engage with customers on social media platforms. Many businesses started to use social CRM tools like Hootsuite, Sprout Social, and HubSpot to manage their social media interactions more effectively. The growth of e-commerce and digital payments in India has led to the emergence of new social CRM solutions tailored to these industries. Companies like Flipkart and Paytm have implemented social CRM to enhance customer engagement and improve customer experience.

The COVID-19 pandemic has accelerated the adoption of social CRM in India, as businesses have had to shift their focus to digital channels to engage with customers during lockdowns and social distancing measures.

How Is Traditional CRM Different From Social CRM?

CRM is used for nurturing the interactions a business has with prospects and customers. In traditional CRM, marketing communication and advertisements are directed from company to customers. Organisations target specific customers through campaign management which limits its scope. Companies are required to contact customers directly to receive feedback.

Social CRM can reach a larger number of potential customers. A socially active customer can share his/her experience online with a larger group of people. Multiple channels of interaction are a must in customer relationship management. Traditional CRM limits the insurer's ability to reach out to individual employees directly. Social CRM has a wider reach.

Traditional CRM (Customer Relationship Management) and Social CRM (Social Customer Relationship Management) differ in several ways.

1. Traditional CRM systems primarily rely on internal data such as sales and service data, while Social CRM integrates external sources like social media conversations, reviews, ratings, and feedback.

2. Traditional CRM systems focus on managing customer interactions through phone calls, emails, and in-person meetings. Social CRM, on the other hand, allows businesses to engage with customers through social media platforms like Facebook, Twitter, Instagram, and LinkedIn.

3. Traditional CRM systems are typically one-way communication channels from businesses to customers, whereas Social CRM

systems enable two-way communication between businesses and customers.

4.Traditional CRM systems provide businesses with transactional data and rely on customer service representatives to handle customer queries. Social CRM systems provide insights into customer sentiment, preferences, and behaviour. They enable businesses to engage with customers through self-service portals and social media platforms.

Social CRM thus allows businesses to engage with customers in a more personalized and efficient manner, leading to increased customer satisfaction and loyalty.

Benefits of Social CRM

Social CRM (customer relationship management) is a business strategy that involves using social media and other online channels to connect with customers, build relationships, and manage customer interactions and data.

1. Social CRM allows companies to interact with customers in real-time and build stronger relationships with them. By responding to customer inquiries and complaints in a timely manner, companies can improve customer satisfaction and loyalty.
2. Social CRM allows companies to gather valuable insights about their customers' preferences, behaviours, and needs. This can help businesses better understand their customers and tailor their products and services to meet their needs.
3. Social CRM allows companies to provide better customer service by responding to customer inquiries and complaints in real-time. This can help improve customer satisfaction and loyalty.
4. Social CRM can help streamline and automate customer relationship management processes, allowing companies to more efficiently manage customer interactions and data.
5. By using social CRM to identify and connect with potential customers, companies can improve their lead generation and sales efforts.

Social listening is the greatest technique to watch out for since customers primarily utilise social media as a channel for communication and being heard. Social media managers nowadays need to be prepared to serve as an organization's first point of contact with customers. Negative remarks and comments shouldn't be erased either because social media makes sure that communication between a brand and its customers is a two-way street. It is important for businesses to be present on every social media platform because we are moving towards an ecosystem on the internet that is more interconnected than ever.

Examples of Social CRM

1. Quick responses of a business to negative feedback of customers
2. Customers creating a fan page of company on Facebook. People will follow and sign up as fans. This will provide a basis for communication, engagement and networking.
3. A business can use social CRM to quickly onboard customers by giving them relevant information in real time
4. A business can follow conversations about its brand in real time
5. Customers can share their experiences on public platforms
6. Customers can offer ideas for future products and take part in crowd sourcing of ideas

Social CRM Metrics

1. Measurement of traffic and conversion rates from social media platforms (how many customers visit sites)
2. Measurement of user engagement with sites
3. Identification of active followers and the quality of their interactions with the company's content
4. Measurement of the number of followers talking about a company or brand and the tone of these conversations.

Limitations of Social CRM

While social CRM (customer relationship management) can offer a number of benefits to businesses, there are also some limitations to consider. Some of the limitations of social CRM include:

1. Dependence on technology: Social CRM relies on the use of technology and social media

platforms to connect with customers and manage customer interactions and data. This means that if there are technical issues or disruptions to these platforms, it can affect the effectiveness of social CRM.

2. Privacy concerns: Some customers may be concerned about the use of their personal data for social CRM purposes. Companies need to be transparent about how they collect and use customer data and ensure that they have obtained necessary consent.
3. Limited reach: While social media platforms have a large reach, not all customers are active users. This means that companies may not be able to reach all of their customers through social CRM.
4. Difficulty in measuring the effectiveness of social CRM: It can be challenging for companies to measure the effectiveness of their social CRM efforts, as it can be difficult to attribute specific outcomes to specific activities.
5. Limited control: Social media platforms are subject to changing algorithms and policies, which can affect the reach and visibility of a company's social CRM efforts. This can limit the control that a company has over its social CRM strategy.

How Can Insurance Sector Benefit From Social CRM?

The insurance industry can benefit from social CRM (customer relationship management) by using social media and other online channels to connect with customers, build relationships, and manage customer interactions and data. Some specific ways in which the insurance industry can benefit from social CRM include:

Insurance companies can use social media channels to provide customer service and support, responding to customer inquiries and complaints in real-time. This can help improve customer satisfaction and loyalty.

Social CRM can help streamline and automate customer relationship management processes, allowing insurance companies to more efficiently manage customer interactions and data. Insurance companies can use social media to identify and connect with potential customers, and collect data about their preferences and needs. This can help improve lead generation and sales efforts. Insurance companies can use data collected through social CRM to personalize their marketing efforts and tailor their messaging and offers to individual customers. This can help improve customer engagement and loyalty. Insurance companies can use social media monitoring tools to track and analyse customer conversations and sentiment in real-time. This can help them understand what customers are saying about their brand, products, and services, and identify areas for improvement.

Millennials Social CRM and Insurance

Millennials, also known as Generation Y, are individuals born between the early 1980s and the mid-1990s. They are a significant demographic for the insurance industry, as they are entering their prime earning and spending years and are increasingly taking on financial responsibilities such as buying insurance.

Social CRM (customer relationship management) can be a powerful tool for insurance companies looking to engage with and attract millennial customers. Some specific ways in which insurance companies can use social CRM to engage with millennials include:

Millennials are active users of social media, and insurance companies can use social media platforms such as Facebook, Instagram, and Twitter to connect with and engage with this demographic. Millennials value personalized experiences, and insurance companies can use data collected through social CRM to personalize their marketing efforts and tailor their messaging and offers to individual customers. Insurance can be a complex and dry topic for some people, and insurance companies can use social media to create engaging and relevant content that helps educate and inform millennial customers about the importance and value of insurance.

How Can Social CRM Improve Insurance Penetration

Social Customer Relationship Management (Social CRM) is a strategy that combines the use of social media, customer relationship management (CRM) software, and other digital tools to interact with customers and potential customers in

a more personalized and engaging way. In the insurance industry, social CRM can be used to improve penetration by enhancing customer experience. Personalized and timely responses to customer queries and concerns can lead to a more positive customer experience, which can lead to increased customer loyalty and retention. Social CRM can help insurers gather data on potential customers and their preferences, allowing them to tailor their marketing efforts and reach out to individuals who are likely to be interested in their products. By using social media and other digital tools to communicate with customers and build relationships with them, insurers can increase their brand awareness and reputation, which can lead to increased demand for their products.

Table 1: statistics on social CRM

Statistic	Value	Report by
Percentage of consumers who use social media to engage with brands	54%	Sprout Social
Percentage of businesses that use social media to engage with customers	92%	E Marketer
Percentage of customers who expect companies to be available on social media	80%	Salesforce
Percentage of customers who have used social media for customer service	67%	Sprout Social
Percentage of customers who have stopped doing business with a company due to poor customer service	59%	New Voice Media
Percentage of businesses that have improved customer relationships with social CRM	78%	IBM
Percentage of businesses that have increased customer loyalty with social CRM	73%	IBM
Percentage of businesses that have increased sales with social CRM	54%	IBM

These statistics are based on various studies and surveys conducted by reputable organizations, and they show the impact that social CRM can have on customer relationships and business success.

Examples of Social CRM in Insurance

Insurance companies can make personalized recommendations for products and services that are relevant to each individual customer. Customers can be offered digital tools that allow them to easily access and manage their policies, including making payments and submitting claims. Insurance companies can use social media and other digital channels to provide educational content to help customers understand their coverage options and make informed decisions. Insurance companies can use social media to promote their products and engage with potential customers through campaigns that include contests, giveaways, and other interactive elements.

TABLE 2: Examples of insurance companies across the globe using social CRM

Country	Name of the Company	Social Media Channels used	Type of activities
USA	State Farm Insurance	Facebook, Twitter, YouTube	Customer service support, information about products and services
	Allstate	Twitter	Brand promotion, customer engagement, share tips on insurance, respond to customer complaints
	Geico Insurance	Facebook, Twitter, Instagram	Customer service, brand promotion, customer engagement
	Nationwide Insurance	Facebook, Instagram, Twitter	Share industry news and insights

Country	Name of the Company	Social Media Channels used	Type of activities
Europe	AXA insurance	Facebook, Twitter, LinkedIn, and Instagram.	Engage with customers and prospects, offering support and providing information about their products and services
	Generali Insurance	Facebook, Twitter, LinkedIn, and YouTube.	Engage with customers, share news and insights, and promote their brand.
	Zurich Insurance	Facebook, Twitter, LinkedIn, and Instagram.	Customer service support through social media channels and providing information about their products and services
	Allianz Insurance	Facebook, Twitter, LinkedIn, and YouTube.	Engage with customers and prospects, offering support and providing information about their products and services.
China	Ping	WeChat, Weibo, and LinkedIn	Engage with prospects and build the sales funnel.
	PICC Property and Casualty Company Limited	WeChat and Weibo.	Brand promotion, customer engagement, customer service support, providing information about their products and services
Japan	Aioi Nissay Dowa Insurance Co., Ltd.	Twitter, Facebook, and LinkedIn.	Promotion of brand and engagement with customers
	Sompo Japan Insurance	Twitter, Facebook, and LinkedIn.	Promotion of brand and engagement with customers

Examples of social CRM in Indian insurance sector

HDFC Ergo: HDFC Ergo uses social media to respond to customer inquiries and concerns, offer personalized recommendations, and provide educational content. The company also uses social media to run campaigns and promote its products.

ICICI Lombard: ICICI Lombard uses social media to respond to customer inquiries and concerns, offer personalized recommendations, and provide educational content. The company also offers digital tools for policy management and uses social media to promote its products.

Bajaj Allianz: Bajaj Allianz uses social media to respond to customer inquiries and concerns, offer personalized recommendations, and provide educational content. The company also offers digital tools for policy management and uses social media to promote its products and run campaigns.

Future of Social CRM in Insurance

Social Customer Relationship Management (Social CRM) is expected to continue to play a significant role in the insurance industry in the future. As more and more customers turn to social media and other digital channels to interact with businesses, insurance companies will need to continue to develop and implement effective social CRM strategies in order to stay competitive.

CRM enables better understanding of prospects and customers and their needs. Social CRM can lead to an insurance business forging productive relationships with customers. Agents can use social CRM to connect with customers and offer them bespoke services. It is also possible to target using the right communication channel desired by the client. Social CRM increases the chances of positive word of mouth from satisfied customers.

Data privacy laws are some of the most important regulations every

business has to comply with. The ideal CRM in the insurance sector should help insurance agents take better care of customer data. Social CRM cuts short the customer onboarding time and facilitates automation of repetitive tasks. For example – sales team need not enter customer's details manually. CRM collects data and saves it in the system. Salespeople can access all the customer information that they need from the dashboard.

One trend that is expected to continue is the use of artificial intelligence (AI) and machine learning to enhance the personalization and automation of social CRM efforts. This will allow insurance companies to more effectively and efficiently respond to customer inquiries and concerns, offer personalized recommendations, and engage with potential customers. Another trend that is expected to continue is the use of social media and other digital channels for customer acquisition and retention. Insurance companies will continue to use these channels to promote their products, generate leads, and convert those leads into paying customers.

Conclusion

Social CRM can help insurance companies engage with their customers in real-time and respond to their queries and complaints promptly. This can help build stronger relationships with customers and improve customer loyalty. Insurance companies can use social CRM to gather valuable customer data and insights by tracking customer conversations and sentiment on social media. This can help them to understand their customers better and tailor their products and services to meet their needs. Social CRM can help insurance companies increase their brand awareness by promoting their brand on social media platforms and engaging with their customers in a more personalized way.

Customer service costs can be reduced as social CRM provides a platform for customers to engage with the company and resolve their queries online, rather than through traditional channels like call centres. Insurance companies can become more responsive to customer needs and preferences, and provide a better customer experience overall.

Social media platforms are a great way to identify influencers and advocates who can help promote an insurance company's products and services. By monitoring social media conversations, insurance companies can identify customers who are actively promoting their brand and engage with them to build stronger relationships and encourage them to share their positive experiences with others.

Social CRM can help insurance companies improve their customer relationships, enhance customer loyalty, and gain a competitive advantage in the market. Social CRM is a powerful tool that can help companies build and maintain strong relationships with customers and drive business growth. It is important for companies to be aware of its limitations and ensure that it is used effectively as part of a broader customer relationship management strategy. Overall, the future of social CRM in the insurance industry is expected to involve the continued development and use of technology to enhance the customer experience, improve lead generation and conversion, and increase brand awareness and reputation. TJ

References

https://www.techtarget.com/searchcustomerexperience/definition/social-CRM

https://www.salesforce.com/in/learning-centre/crm/social-crm/

https://frankdiana.net/2011/07/05/social-crm-in-the-insurance-industry/

https://ibimapublishing.com/articles/JISNVC/2014/977265/

https://www.ndottech.com/blog/traditional-crm-social-crm.html

https://www.findmycrm.com/blog/comparison/traditional-crm-vs-social-crm-find-out-the-difference

https://www.business2community.com/customer-experience/whats-difference-traditional-crm-social-crm-cxm-software-01177138

Ping An Insurance: https://www.pingan.cn/en/brand/socialmedia.html

PICC Property and Casualty Company Limited: https://www.picc.com.cn/en/aboutUs/Pages/social_media.aspx

Aioi Nissay Dowa Insurance Co., Ltd.: https://www.aioinissaydowa.co.jp/english/socialmedia/

Sompo Japan Insurance Inc.: https://www.sompo-japan.co.jp/en/about/social/

AXA Insurance: https://www.axa.com/en/about/social-media

Generali Insurance: https://www.generaligroup.com/en/news-and-media/social-media

Zurich Insurance: https://www.zurich.com/en/about-us/social-media

Allianz Insurance: https://www.allianz.com/en/about-us/social-media/

State Farm Insurance: https://www.statefarm.com/customer-care/social-media

Allstate Insurance: https://www.allstate.com/resources/allstate-social-media.aspx

Geico Insurance: https://www.geico.com/about/social-media/

Nationwide Insurance: https://www.nationwide.com/about-us/social-media.jsp

"A Brief History of Social CRM" by Kyle Lacy, Salesforce Blog, May 22, 2013. https://www.salesforce.com/blog/2013/05/social-crm-history.html

"The History of Social CRM: From Six Degrees to Artificial Intelligence" by Daniel Newman, Forbes, April 17, 2019. https://www.forbes.com/sites/danielnewman/2019/04/17/the-history-of-social-crm-from-six-degrees-to-artificial-intelligence/?sh=5f9c06e872e5

"The Benefits of Social CRM in the Insurance Industry" by Jeff Rutherford, CRM Magazine, July 2, 2012. https://www.destinationcrm.com/Articles/CRM-News/CRM-Featured-Articles/The-Benefits-of-Social-CRM-in-the-Insurance-Industry-83445.aspx

"5 Benefits of Social Media for the Insurance Industry" by Craig Daly, Hootsuite Blog, May 21, 2020. https://blog.hootsuite.com/insurance-industry-social-media-benefits/

"Social CRM: The Key to Unlocking India's Growing Social Media Market" by Priyadarshini Nandy, CXO Today, April 25, 2018. https://www.cxotoday.com/digital-enterprise/social-crm-the-key-to-unlocking-indias-growing-social-media-market/

"Social CRM: The Next Big Thing in India?" by Anurag Batra, Business Today, March 28, 2014. https://www.businesstoday.in/opinion/columns/story/social-crm-next-big-thing-india-198584-2014-03-28

"Social CRM in India: Current State and Future Prospects" by Ankur Sharma and G. Gopa Kumar, International Journal of Information Management, January 2019. https://www.sciencedirect.com/science/article/abs/pii/S0268401217305953

Insurance Litigation: Latent Reasons

Prof. Archana Vaze
vaze@iii.org.in

Prof. Archana Vaze is Assistant Professor (Non-Life) in College of Insurance, Insurance Institute of India. She has done her Bachelor's in Engineering from Nagpur University, Post-Graduation from IIT Madras and LLB from the University of Mumbai. Prof. Vaze is a Fellow Member (FIII) of the Insurance Institute of India. Her exposure to the insurance industry spans multiple areas including underwriting, business strategy and process management. Her academic/ research interests include insurance litigation, disaster risk resilience, property and project insurance and mutuals.

Dr. George E Thomas
thomas@iii.org.in

Dr. Thomas is Professor, College of Insurance, and heads the Research Dept. of Insurance Institute of India. Earlier, he was with Tariff Advisory Committee (TAC) and IRDAI. He is Member of the Law, Regulation and Resilience Policies (LRRP) Working Group of the Insurance Development Forum (IDF), and the Advisory Group on Mutual Microinsurance Regulation and Sustainable Development of the University of Cambridge Institute for Sustainability Leadership (CISL). He has led research/ consultancy projects on disaster risk resilience, insurance regulations, mutuals, housing etc.

It is common knowledge that the Insurance policy is a legal contract as defined under Indian Contract Act 1872. However, most people are not aware that insurance contracts have certain unique principles and characteristics that make them different from standard contracts; and that many of such principles and characteristics are well established in various landmark cases in India and abroad. It is interesting that despite the availability of literature and case laws, the specialties of the Insurance Contract often go unnoticed even by the legal fraternity, and many people tend to rely on the definitions and provisions of the Standard Contract as per the Indian Contract Act, without delving deep into the core principles and concepts that are the heart and soul of an insurance contract. Hence, it has become important to discuss this issue.

Any contract is legally binding between two or more parties, and the parties concerned agree to perform certain actions and to refrain from certain actions. This is applicable in Standard Contracts as well as Insurance Contracts. However, there are some subtle differences in the case of Insurance Contracts, because one party, the insurance company, agrees to compensate the other party, the insured/ policy holder for losses or damages which may occur within the defined terms and conditions, in exchange of a consideration in the form of insurance premium.

The terms in the contract are generally outlined in writing and each party is responsible for its obligations under the contract. Considering that contracts are not separately prepared for each policy holder, insurance contracts are **Contracts of Adhesion** or **Standard Form Contracts**, where the policyholder has no right to change the terms. In a normal contract, these are outlined in the contract document; whereas in an insurance contract, the Policy

Schedule along with the policy document form the basis of the contract. However, Policy Schedules contained in insurance contracts mention *inter alia*, the amount of coverage, the exclusions, the deductibles, additional clauses, warranties and conditions that are specific to the policy[1]. Policy Schedules have to be read alongside the actual policy wording for proper clarity on the intricacies of the coverage and the loss scenarios. In case of dispute, the Schedules take precedence[2] over the Standard Policy Wording, making the Insurance Contract beyond the standard form contract. It is noteworthy that Contracts of Indemnity are recognized under Section 124 of the Indian Contract Act, 1872 as **special contracts**. Also, jurisprudence has developed for Contracts of Indemnity and also for each of the other special contracts viz. guarantee, bailment, pledge and agency mentioned under the Indian Contract Act[3].

The Insurance Act, 1938 as amended from time to time, states that an insurance contract is a legally binding agreement between an insurer and a policyholder, in which the insurer agrees to compensate the policyholder for losses or damages that may occur in exchange for a premium.

There is considerable awareness about the Principles of Insurance. However, there are some Indian case laws that elucidate on the principles and clarify about the specialties of insurance contracts. Some of the prominent cases, and the way the Hon'ble Courts in India have gone into the specialties of insurance are discussed below:

Insurable Interest

The policyholder must have an insurable interest in the subject matter of the insurance contract. In other words, the policyholder must stand to suffer a financial loss if the subject matter of the insurance is damaged or destroyed.

In a landmark court case of National Insurance Co. Ltd. v. Swaran Singh (2012), on dispute related to motor vehicles policy the Supreme Court a legal precedent was established. The Hon'ble Supreme Court held that insurable interest is a fundamental requirement for a valid insurance contract. The court observed that the policyholder must have a financial interest in the subject matter of the insurance contract and that this interest must exist at the time the contract is entered into and at the time of the loss. If the principle of Insurable interest did not exist, anyone can buy insurance on any person or property; and might kill the person or destroy the property with the intention of profiting from this policy. Insurable Interest tries to prevent such situations.

In Economic Transport Organization v. Charan Spinning Mills 2010 (4) SCC 114, the Supreme Court observed that *"A contract of insurance is a contract of indemnity. The loss/ damage to the goods covered by a policy of insurance, may be caused either due to an act for which the owner (assured) may not have a remedy against any third party (as for example when the loss is on account of an act of God) or due to a wrongful act of a third party, for which he may have a remedy against such third party (as for example where the loss is on account of negligence of the third party). In both cases, the assured can obtain reimbursement of the loss, from the insurer."*

In the case of Life Insurance Corporation of India vs Insure Policy Plus Services, the Supreme Court clarified (2015) that *"the rule of public policy that forbids the taking out of insurance by one on the life of another in which he has no insurable interest does not apply to the assignment by the insured of a valid policy to one not having an insurable interest. In the impugned Judgment, the High Court noted that the law in the U.S.A. after Grigsby is that though there has to be an insurable interest at the inception when the policy is taken out, subsequent thereto there is no requirement of insurable interest at the time of transfer or assignment. It was further held that*

1 Policy Schedule (Schedule of Insurance) - https://www.insuranceopedia.com/definition/495/policy-schedule-schedule-of-insurance

2 What takes priority – the schedule or the policy wording? - https://www.carternewell.com/ page/Publications/ 2019/ what-takes-priority-the-schedule-or-the-policy-wording/

3 All you need to know about special contracts - https://blog.ipleaders.in/all-you-need-to-know-about-special-contracts/#Insurance_contracts

"A transfer or assignment of a policy made in accordance with section 38 of Insurance Act shall automatically cancel a nomination: Provided that the assignment, of a policy to the insurer who bears the risk on the policy at the time of the assignment, in consideration of a loan granted by that insurer on the security of the policy within its surrender value, or its reassignment on repayment of the loan shall not cancel a nomination, but shall affect the rights of the nominee only to the extent of the insurer's interest in the policy."

Utmost Good Faith

The policyholder and the insurer must act with Utmost Good Faith and disclose all material facts related to the insurance contract. As the person purchasing insurance is best person to know all the facts about the risk or the subject matter of insurance that an insurance company is insuring, the information disclosed will be considered as true and correct and will form the base of the insurance contract. In same way, the insurance company is supposed to disclose all the exclusions and coverages under the particular insurance policy so as to have complete transparency in the transaction.

In United India Insurance Co. Ltd. v. M.K.J. Corpn.11 this 111996 (6) SCC 428 the Supreme Court underlined the importance of this principle, and its application to the insurer, in the following terms: *"It is a fundamental principle of Insurance law that utmost good faith must be observed by the contracting parties."* One must note that Good Faith forbids either party from concealing (non-disclosure) what he privately knows, to draw the other into a bargain, from his ignorance of that fact and his believing the contrary.

It also clarified that as the insured has a duty to disclose, similarly, it is the duty of the insurers and their/ Intermediaries to disclose all material facts within their knowledge, since obligation of good faith applies to them equally with the assured. *"The duty of good faith is of a* ***continuing nature****. After the completion of the contract, no material alteration can be made in its terms except by mutual consent. The materiality of a fact is judged by the circumstances existing at the time when the contract is concluded."*

Assessment of the Extent of Liability

In case of insurance contracts the extent of liability is defined by way of the Sum Insured mentioned on the policy. Whereas the entire sum insured is guarded by terms and conditions of the insurance contract, in the event the terms and conditions of policy are obscure it is permissible for the purpose of construction of the deed to look to the surrounding circumstances as also the conduct of the parties.

In Oriental Insurance Co. Ltd. vs. Sony Cheriyan **[(1999) 6 SCC 451]**, it was held by the Hon'ble Supreme Court, *"Since the insurer undertakes to compensate the loss suffered by the insured on account of risks covered by the insurance policy, the terms of the agreement have to be strictly construed to determine the extent of liability of the insurer."* It was also held that *"The insured cannot claim anything more than what is covered by the insurance policy. That being so, the insured has also to act strictly in accordance with the statutory limitations or terms of the policy expressly set out therein."*

Contract of Indemnity

Indemnity is a legal principle that requires an insurer to compensate the policyholder for any losses or damages that are covered under the insurance contract. Except in the case of contracts of Life Insurance, personal accident and sickness or contracts of contingency insurance, all other contracts of insurance entitle the assured for the reimbursement of actual loss that is proved to have been suffered by him. In India, courts have established several legal precedents that establish the principle of indemnity in insurance contracts.

Indemnity can also mean that the insured does not have the right to get 'new for old' after the loss, as at the time of pricing the particular insurance, only the cost of indemnity is considered, unless specifically provided otherwise. In absence of this system, situations of moral hazard can arise and cause the collapse of the insurance mechanism. As insurance payouts go from a common pool of insured, such checks and balances are inbuilt into the insurance mechanism to ensure that only genuine sufferers of losses get indemnified and that too only to the fair extent.

A contract of **insurance** is and always continues to be one for **indemnity** of the defined loss, no more no less. In the case of specific risks, such as those arising from loss due to fire, etc., the insured cannot profit and take advantage by double **insurance**. Long ago in 1833, Brett LJ in Castettion v Preston33 said, *"The contract of **insurance** …* is a contract of ***indemnity**, … and this contract means that the assured, in the case of a loss, … shall be fully indemnified, but shall never be more than fully indemnified."* [(1833) 11 QBD 380]

In case of United India Insurance Company ... vs Kantika Colour Lab & Ors on 6 May, 2010 Supreme Court held that as Insurance is contract of indemnity,[4] the happening of the event against which insurance cover has been taken does not by itself entitle the assured to claim the amount stipulated in the policy. Only post action of such uncertain event under contract of indemnity, *"It is only upon proof of the actual loss, that the assured can claim reimbursement of the loss to the extent it is established, not exceeding the amount stipulated in the contract of Insurance which signifies the outer limit of the insurance company's liability."*

As discussed earlier, in extent of liability the amount mentioned in the policy does not signify that the insurance company guarantees payment of the said amount regardless of the actual loss suffered by the insured.

Aleatory Contract

This is a type of contract in which the performance of one party depends on the occurrence of an uncertain event, such as an insurance contract where the insurer's performance depends on the occurrence of an insured loss. In India, the courts have recognized that insurance contracts are aleatory in nature.

In case of Max New York Life Insurance Co. Ltd vs The Insurance Ombudsman, the Kerala High Court (2010) observed that a Life Insurance contract is similar to other types of insurances (1) an Aleatory Contract, (2) a Unilateral Contract, (3) a Conditional Contract, and (4) a Contract of Adhesion, but not (5) a Contract of Indemnity. It also observed that the insurance contract is Aleatory, Executory, Synallagmatic, Conditional and Personal in nature, except in the case of Life and Accident, where it is one of Indemnity. The Court clarified further that an 'Aleatory Contract' is explained as an agreement where there is an element of chance or uncertainty, as for instance a wagering contract. Depending upon chance, a party to such an agreement may receive a return out of all proportion to the value which he gives. Whereas, it is not similar to gambling. In case of insurance both the parties, the insured and insurer do not want the uncertain event to happen.

In ordinary contracts, each party expects to give and to receive from the other party fairly equivalent values in exchange, as for example, in the purchase of goods. These are called 'Unilateral Contracts', since only the insurer makes an enforceable promise. The Life Insurance contract is also a "Conditional Contract" because the promise of the insurer is conditioned on the timely payment of premiums subsequent to the first payment by the insured. This is a condition precedent to the continuance of the contract under its original promise.

These conditions are termed as of two types, either precedent or subsequent. A 'condition precedent' must be satisfied before legal rights and duties are created or continued, whereas a 'condition subsequent' must be fulfilled in order to prevent the extinguishment of rights and duties already created by a contract. On payment of premium, a 'condition precedent' gets satisfied. As discussed earlier, a Life insurance contract is said to be a Contract of

4 UK Halsbury's Laws of England (4th Edition) refers to the case as follows: "*The happening of the event does not of itself entitle the assured to payment of the sum stipulated in the policy; the event must, in fact, result in a pecuniary loss to the assured, who then becomes entitled to be indemnified subject to the limitations of his contract. He cannot recover more than the sum insured for that sum is all that he has stipulated for by his premiums and it fixes the maximum liability of the insurers. Even with in that limit, however, he cannot recover more than what he establishes to be the actual amount of his loss. The contract being one of indemnity only, he can recover the actual amount of his loss and no more, whatever may have been his estimate of what his loss would be likely to be, and whatever the premiums he may have paid, calculated on the basis of that estimate.*"

Adhesion meaning thereby that the terms of the contract are not arrived at by mutual negotiations between the parties as in the case of ordinary contracts. The Insurer has various types of policies to suit various needs and a person who applies for a policy of Life insurance must accept one of those which may be most suitable to him.

Synallagmatic Contract

A synallagmatic contract is a bilateral contract in which both parties make promises to each other. In India, the courts have recognized that insurance contracts are synallagmatic in nature. It is synallagmatic in the sense that it imposes reciprocal obligations. Insurance contracts are bilateral being in the nature of mutual agreements imposing obligations of a reciprocal nature upon the insurer and the insured.

In the case of Lakshmi Insurance Co. Ltd. vs Bibi Padma Wati (1960), the High Court of Punjab and Haryana held that Insurance, apart from its special features, is a contract between the person seeking to be insured and the insurer. Broadly speaking, it is said, that *"a contract of insurance is in its nature aleatory, voluntary, executory, synallagmatic, conditional, and personal, and, except as to life and accident that it is one of indemnity"*.

Conditional

Insurance Contracts are Conditional as they depend upon compliance of certain conditions such as payment of premium, avoidance of misrepresentations, subject to conditions like communication of material facts.

Personal

Insurance Contracts are Personal, as the obligation to pay does not run with the property, whether it be a real estate or a personal estate, unless, of course, there is an express stipulation to the contrary. Life insurance has originated from benevolent motives, the object being to secure to the family of the person some support on the death of the insured. The addition of many new features to insurance has not materially affected this main principle on which it rests. In every proposal, underwriters specify the warranties and conditions, which the insureds have to abide by. For instance, in the case of Burglary Policies, 24 hours' security has to be provided at the location of the risk. Once the insured accepts this proposal, he is giving his consent to abide by such conditions by performing the action of paying the premium and entering into the contract.

Proximate Cause

Also known as the 'Effective Cause', Proximate Cause refers to the cause that is closest to the loss or damage and that sets in motion the chain of events that leads to the loss. In India, Courts have established several legal precedents that establish the principle of Proximate Cause in insurance contracts.

In case of New India Assurance Company Ltd vs M/s. Zuari Industries Ltd. & Ors (2009) the Hon'ble Supreme Court quoted multiple past cases of other countries, and observed that the predominant view as per discussions in multiple foreign courts appeared to be that the Proximate Cause is not the cause which is nearest in time or place but the most active and efficient cause that sets in motion a train or chain of events which brings about the ultimate result without the intervention of any other force working from an independent source.

In Krenie C. Frontis et al. vs. Milwaukee Insurance Company (156 Conn. 492; 242 A.2d 749; 1968 Conn. Lexis) the Court held that *"the fire (the cause of damage in case in question) was the active and efficient cause that set in motion a chain of events which brought about the result without the intervention of any new and independent source, and hence was the proximate cause of the damage."*

In conclusion, the Authors wish to point out that to understand the essence of an Insurance Contract, instead of looking at Insurance Contracts in isolation, as done in the case of other contracts, stakeholders should consider multiple factors related to insurance and attempt to understand the situation holistically. This would reduce unnecessary litigations in the insurance sector and improve the trust factor paramount to the Insurance mechanism.

The Role of Covid-19 in Popularising Travel Insurance in Post-Pandemic Era

Jigmet Stobdan
stobdancommerce@gmail.com

Jigmet Stobdan (Pursuing Ph.D) is currently working as an assistant professor in the department of Commerce, University of Ladakh. The author is UGC-NET JRF, CAIIB fellow of IIBF. He has presented papers in various national and international conferences.

Dr Sunil Kumar
sunil25287@gmail.com

Dr. Sunil Kumar is currently serving as Assistant Professor at Department of Commerce, University of Jammu. He has completed his Ph.D in the area of Marketing. He is having nine years of teaching and research experience. He has presented papers in National and International conferences and has also published papers in journals of national and international repute. He has also co-edited a book on Managing the impact of COVID-19 on Financial Services Industry.

Abstract

This study explores the relationship between travellers' perception of travel insurance and purchasing travel insurance in the wake of the Covid-19 pandemic. We examine the perceptions regarding travel insurance among travellers travelling to one of the popular tourist destinations Ladakh. We interviewed 410 domestic travellers from June 2022 through August 2022. The findings of the study are consistent with those of earlier studies which found the role of travel insurance as a risk mitigation strategy in travellers' decision-making process, middle-aged married respondents are more inclined towards purchasing travel insurance than their younger and older counterparts, and Covid-19 has prompted respondents to know about travel insurance. This study highlights how Covid-19 compelled travellers to buy travel insurance and how insurers should devise more appropriate strategies to popularise travel insurance among travellers. Our study reveals that the Covid19 pandemic has helped spread awareness about travel insurance and compelled travellers to take travel insurance. Several managerial implications regarding risk perception and travel insurance are put forth, and avenues for future research are discussed.

Keywords

Travel; Travel insurance; Risk Management; Covid-19.

1. Introduction

Travelling has become a necessity in everyone's life; people travel for work, leisure, education, research, pilgrimage, adventure, etc. Once perceived as not so essential, travel insurance has become an indispensable element for travelling. In a way, travel insurance has become a vacation staple now. Insurance is a written contract between two parties, the insurer and the insured, whereby the insurer offers financial protection to the

insured against any specified risk. The insurer agrees to assume an insured's risk against specified potential events in consideration for a certain amount of money, known as a Premium (Aswani et al. 2021). In case of the occurrence of the specified event, the insurer is bound to compensate the insured by paying a claim (Rawat al. al 2021). Based on the types of risk involved, insurance policies may be of different kinds like life insurance, travel insurance, motor insurance, liability insurance, health insurance etc. Travel insurance is a kind of insurance product for tourists and travel activities. It provides coverage that may cover loss of baggage, trip cancellation, physical injury, medical treatment, or any unforeseeable situations during travel (Choe 2022). Moreover, travel insurance is known to supplement existing health insurance products that typically do not cover risks associated with travel (Leggat et al. 1999). It typically insures risks associated with trips to which travellers are susceptible and offers financial compensation in the event of the occurrence of those unforeseen risks which may put travellers in uncomfortable positions (Hasan and Abdullah 2015). Hence, travel insurance offers financial security to travellers in the event of the specified risk, boosts their confidence during travel by giving a sense of security and lessens their sensitivity to potential threats (Tykocinski 2008; Sarman et al. 2019).

The global travel insurance market size is estimated to touch a mammoth United States Dollar 63.9 billion by 2030, as per the report by Grand View Research, Inc. The market is anticipated to grow at a Compound Annual Growth Rate CAGR of 15.4% from 2022 to 2030. The report also claims that the demand for travel insurance is poised to increase at rapid speed owing to the growth in the tourism industry because of determinants like, on the go mobile travel bookings, rolling out of attractive holiday packages, promotion of various holiday types at mass level, enhancement in disposable income, enhanced package holidays, etc., Before 2020, travel insurance was on the list of unsought product and travellers would not accord importance to travel insurance while planning a trip. In India, travel insurance penetration is meagre 3.9%, and travel insurance is often seen as a luxury service; therefore, people do not pay due attention to it while making a trip plan. The majority of people in India do not anticipate unwanted circumstances while travelling. Although travel insurance for foreign trips is seen as essential yet travel insurance for within the country is seen as insignificant. Insurance companies were striving hard to tie up with tour operators or trip aggregators to sell travel insurance, but the results were not as expected. Report by Quantum Market Research, 2017 and 2018 reveals that before the onset of the Covid-19 pandemic, travellers did not have adequate travel insurance coverage. Even in advanced countries like the USA, only 12.8% of people buy travel insurance (Sarman et al., 2020).

At the beginning of 2020, the entire world witnessed an extremely viral disease named Covid 19. The ever-busy world came to a standstill with the announcement of various restrictions like curfew, lockdown, etc. The Covid-19 pandemic (declared by the World Health Organization on March 12, 2020) has adversely affected the tourism and travelling sector worldwide on a large scale (Choe et al. 2022). As per data from United Nations World Tourism Organization (UNWTO 2020), international tourist arrivals in the first six months of 2020 witnessed a sharp decline of 20–30% over the corresponding period last year, causing a revenue loss of 440 million tourists internationally and about US Dollar 460 billion financial loss. This loss is considered much more than the Severe Acute Respiratory Syndrome SARS pandemic in 2003 (0.4% decrease) or any other viral disease the world has witnessed earlier (Choe et al. 2022). With the imposition of restrictions on movement from one place to another, the travel and tourism industry was the most hit worldwide. People got locked in their homes for several months. Travelling lovers worldwide had the toughest times during lockdowns and curfews. Many people then realised the importance of "not sought goods," i.e., insurance. Although people had a fair idea about various kinds of insurance to cover multiple risks, travel insurance was the kind of insurance that many people either did not understand or consider important.

After the Governments announced relaxations, travellers were made to understand the importance of travel insurance by travel agents and trip aggregators. The expenditures of an individual incurred due to loss of baggage, delay or cancellation of flights or trains, infection of Covid and post-treatment, accidents, etc., can be reimbursed by travel insurers. Nowadays, travellers are familiar with travel insurance and the benefits associated with that. An ICICI Lombard survey revealed that travel insurance perception had changed drastically in India post-Covid-19 pandemic and found that 76% of customers opted for travel insurance after Covid-19 compared to 50% before the pandemic. As per the report of IRDAI (The Insurance Regulatory and Development Authority of India) the travel insurance witnessed a massive decline in its sale in the year 2020-21 primarily due to Covid-19 but after the third wave was over Policy Bazaar reported that overseas travel insurance witnessed exponential growth of 40% during the period of February-March 2022. It is observed that more and more married individuals take travel insurance for trips. They are taking travel insurance mainly due to family responsibilities they shoulder and their expectation of mental peace during their trips. Moreover, it is observed that most travellers take travel insurance just because their trip planners or trip aggregators motivate them to buy. Notifications on the website while booking hotels, trains, and flights are pivotal in prompting consumers to buy travel insurance. Only frequent travellers have good knowledge about travel insurance and take it on their own because they have a fair idea about the benefits it offers in the event of untoward circumstances. The purchase decision of travel insurance is primarily governed by the amount of premium and the risks coverage. Travel insurance is must have for international travellers and is often seen as indispensable protection tool but travel insurance market in India is at its infancy stage vis-à-vis other insurance products owing to the lack of efforts by insurers, low level of awareness, non-mandatory nature, etc. Considering the post-covid 19 period, this study primarily emphasises the risk perception of travellers and ways to cover such risks by purchasing travel insurance.

2. Objective of Study

i. To understand the perceptions concerning travel insurance and the reason for purchasing travel insurance.

ii. To comprehend and analyse travel insurance perceptions based on the traveller's age, marital status and educational qualifications.

iii. To analyse the future intentions towards buying travel insurance.

To minimise travel-related risks, travellers generally buy travel insurance to cover risks associated with travel-related activities. Travel insurance is meant to cover risks related to travel and financially help travellers when they need to redress issues (Kerr and Kelly 2018). Hence, travel insurance is a viable but simple risk minimisation alternative for travellers to avoid any untoward incidents caused by possible risks during travel (Choe 2022). In this context, the current study aims to comprehend and analyse travellers' risk perception and its ramification in buying travel insurance. Moreover, it explores the factors affecting the decision regarding travel insurance purchases. The following sections of the research work are literature review, reasons for purchasing travel insurance, data collection and discussion, followed by managerial implications, conclusions, limitations and recommendations for future research.

3. Literature Review

Numerous determinants affect a traveller's decision to buy travel insurance which inter-alia includes risk framing, perceived immunity owing to familiarity with the destination, and travellers' comprehension of risks at the destination (Caponecchia & Tan, 2019). Provided the severity of Covid-19, many scholars stressed the unprecedented after-effects of the pandemic, which inter-alia includes drastic changes in the travel and tourism sector in general and a paradigm shift in travellers' outlook post Covid-19 outbreak (Choe et al., 2022). Previous researches call for more research in studying the current phenomenon, the possible developments that have happened in the travel and tourism sector, and the repercussions of Covid-19 on tourists' travel behaviour. Researchers like, Choe et al. (2022) argue that from travellers' point of view, the pandemic caused a

substantial decline in travellers' needs to travel either voluntarily or forcefully. But due to factors like work compulsion, family pressure and the need for relaxation, travellers go for travelling post Covid-19. In a way, the pandemic helped insurers in one or another way to increase the sale of their products and travel insurance marketers are one of the beneficiaries. Travel insurance is one of the most unsought insurance products, but the pandemic has helped make travellers realise the importance of travel insurance. Now it is high time that trip planners and practitioners understand the risk perception and risk minimisation behaviour of tourists to help tourists regain their confidence and motivate them to travel once again. Travellers have different degrees of tolerance for perceived/actual perils, and if their perceptions exceed expected level then it compels them to ponder on certain decisions that may help them to minimise the consequences of such perils (i.e., risk management and avoiding travel) (e.g., Fuchs and Reichel 2011; Lo et al. 2011; Sonmez and Graefe 1998a). This different risk tolerance capacity prompts them to consider buying travel insurance (Choe et al., 2022). Only limited research studies have been done in the tourism field that have studied travel insurance (Kerr and Kelly 2018; Sarman et al. 2019; Choe et al. 2022) and these studies have found certain important factors that work as determinants of travel insurance purchase. For any insurance product, the risk factor is the main motivation behind purchasing an insurance policy. Buying travel insurance is seen as an effective risk reduction technique that needs some degree of risk perception and need for travel. A study by Kock et al., (2020) reported a positive association between potential Covid-19 infectability and intention to buy travel insurance and his finding is supported by previous studies on risk perception and travel insurance. Therefore, there is a high chance that Covid-19 risk perception may lead to the purchase of travel insurance. Moreover, the relevant literature on the subject investigated the role of demographic factors on risk perception, risk minimisation techniques and the probability of buying travel insurance. However, the results are quite mixed. For example, a study by Choe et al. (2022) confirmed that the purchase of travel insurance is affected by factors like risk perception, demographic factors, prior experience with travel insurance and Covid-19. Sarman et al. (2019) reported mixed findings (i.e., travellers' age and earning profiles has a strong bearing on buying travel insurance, but the gender does not affect). Sonmez and Graefe (1998b) investigated the education level of travellers and found that travelling internationally is largely influenced by education level, but they did not find a similar effect for age and gender. Zalech (2020) found that the age and earning level are the governing factors that influence travel insurance purchases while, gender and level of education do not have any bearing. But, Karl (2018) did not find any influence of gender and income. Yu and Chen (2018) investigated previous purchase experience and found that the frequency of previous insurance purchase also increases the likelihood of people's intention to purchase travel insurance online. Chou and Yao (2011), Lo et al. (2011), and Zalech (2020) reported that mid-aged individuals are more inclined towards purchasing travel insurance than young and old-aged travellers. Similarly, Lo, Cheung, and Law (2011) investigated the uptake of travel risk minimisation strategy in Hong Kong and found that more educated and high-income earner female travellers have a higher inclination to opt for travel insurance, and travellers going to far distant locations also have more tendency to buy. On the other hand, Lau, Yang, and Tsui (2007) found that university-educated married men are more likely to buy travel insurance than others. In light of the above-mixed result, this study aims to examine the role of demographic factors (i.e., age, education level, and marital status) on the purchase of travel insurance in the Covid-19 post-period.

Travelling, like any other activity involves risks. Various types of perils are related to travelling e.g., financial, psychological, time risk, etc. It may put travellers in an unwanted and uncomfortable position depending on the circumstances (Choe 2022), and to avoid such perils, awkward situations and minimise undesirable results, travellers resort to different forms of risk minimisation tendencies (e.g., taking suggestions from others, talking to tour operator, buying travel insurance and taking vaccinations) (Mitchell and Vassos 1998; Fuchs and Reichel 2011; Sarman et al. 2019; Lo et al. 2011). Hence,

travellers engage in different tactics to minimise these risks, especially a traveller acts on risk-minimization tactics when the stakes get increased (Mitchell et al. 1999; Fuchs et al. 2012; Koo et al. 2019). Among the various risk-minimisation tools for travellers, taking vaccinations and buying travel insurance are the primary tools to minimise prospective negative consequences of travelling (Mitchell and Vassos 1998; Jonas et al. 2010). Relevant studies, e.g., Mitchell and Vassos (1998); Lo et al. (2011); Sarman et al. (2019); Kerr and Kelly (2018) in this regard found that while getting vaccinated is found to be least preferred and buying travel insurance is found to be a prevalent and comfortable tool for travellers. Buying travel insurance is considered the most important risk minimisation technique (Mitchell and Vassos 1998; Lo, Cheung, and Law 2002; Ritchie, Chien, and Sharifpour 2017) and has become even indispensable component of travel with more and more people preferring to travel abroad and lesser people prefer scheduled tours (Leggat and Leggat 2002a). Moreover, insurance purchase is typically seen as an effective method to reduce the cost (or to be at least partially compensated) if something untoward incident happens while travelling, granting peace of mind and sometimes even regarded as a method that helps boost confidence to travel. Travel insurance gives travellers with mental benefits (e.g., peace of mind, security, safety, security competence) and financial benefits (e.g., medical and related travel expenses) (Hasan and Abdullah 2015; Leggat et al. 1999; Tykocinski 2008; Sarman et al. 2019; Kerr and Kelly 2018). Risk reduction endeavour is typically a process through which individuals try to minimise uncertainty or, at least, the unwanted repercussions that may be caused by an undesirable occurrence (Mitchell et al. 1999). Those travellers who perceive higher risks tend to use more risk-reducing strategies, and the kind of risk an individual perceives influences the kind of risk minimisation technique they use (Mitchell et al. 1999), and it is seen that more risk management technique is used before buying high-end products. Therefore, in today's era of high-speed internet, smartphones and social media, travellers now have access to online reviews and online forums for relevant recommendations from previous travellers and for seeking travel-related information beforehand (Fuchs and Reichel 2011). Few studies have investigated travel insurance purchase behaviour among travellers, and the results were quite mixed. Therefore, there is a need to study travellers' perceptions about travel insurance in the wake of Covid-19 and vaccination. A recent study by Choe et al., (2022) called for more research on travel insurance after the rollout of covid 19 vaccines, and this study is in this direction to understand and analyse the perception of travellers towards travel insurance, specifically after vaccination and how Covid-19 prompted them to opt for travel insurance. The paper attempts to comprehend the rationale for purchasing travel insurance among travellers and how Covid-19 helps spread awareness about the importance of travel insurance.

Table 1 - Key prior literature reviewed

Author	Year	Journal	Key findings
Yeongbae Choe, Hyesun Kim and Youngjoon Choi	2022	Service Business	Found the influence of COVID-19, risk perception, demographic factors (age and edu- cation level), and past travel insurance purchase experience on tourists' willingness to purchase travel insurance when faced with health-related risk issues.
Igor Sarman, Riccardo Curtale and Homa Hajibaba.	2020	Journal of Travel Research	Reported that traveller's age and earning profiles exert influence on buying travel insurance while gender does not.
Zalech Miroslaw	2020	Tourism Analysis	Found the age and the level of monthly income as deciding factors in considering travel insurance purchase; gender and education were not found to be deciding factors.

Author	Year	Journal	Key findings
Florian Kock, Astrid Nørfelt, Alexander Josiassen, A. George Assaf and Mike G. Tsiona	2020	Annals of Tourism Research	Revealed a positive correlation between possibility of Covid-19 infection and tendency to buy travel insurance policy.
Tsu-Wei Yu and Tso-Jen Chen	2018	Journal of Travel and Tourism Marketing	Findings confirm that as customers gain more faith in and less online uncertainty about life insurers with growing online experience, they are more inclined to buy online travel insurance.
Gayle Kerr and Louise Kelly	2018	Journal of Travel and Tourism Marketing	Found that security, mental peace, and feeling of happiness are the final customer values of purchasing travel insurance.
Ada S Lo, Catherine Cheung and Rob Law	2011	Journal of Travel and Tourism Marketing	Revealed that socio demographic and travel-related variables affect traveller's tendency to risk-minimisation strategy differently. Especially, age, income and prior travel experience show significant differences in the probability of taking risk minimisation strategy by travellers.

4. Reasons for Purchasing Travel Insurance

Covid-19: We interviewed those tourists who had purchased travel insurance for their trip. To the question "What compels me to know about travel insurance", 356 out of 410 i.e., 86% respondents said that Covid-19 and its possible repercussions on their trip compelled them to know about travel insurance, followed by purchasing travel insurance policy.

Risk Management Strategy: To the question, "Do you see travel insurance as a risk management strategy" 85% respondents acknowledged that they consider travel insurance as the most effective risk management strategy. Most of them, i.e., 85%, are married, implying that married people see travel insurance as an effective risk management strategy. Moreover, the educational qualifications of three-fourth of respondents are graduate and above, which clearly indicates that highly educated people have a good idea about insurance as a risk management tool.

Peace of mind: 76% respondents said that travel insurance gives them peace of mind during their trip. This trend is more prevalent among leisure and holidays traveller and one respondent even claimed "I have availed claim settlement amount of ₹ 18000 on account of cancellation of flights and subsequent booking of hotel room".

Benefits of travel insurance: To ask, "Did you take travel insurance voluntarily because you knew the benefits" only 13% respondents purchased travel insurance voluntarily and the rest did not know about the travel insurance before their trips. It clearly shows that insurers must spread awareness about travel insurance on a large scale.

Risks coverage: Only 45% of respondents had idea about the risk coverage of their travel insurance policy. They had clear idea about what are the exclusions of their travel insurance. The majority of respondents, i.e., 55%, were unaware of the risk coverage of their travel insurance policy.

Travel agents/ tour operators: 303, i.e., 74% of respondents acknowledged that their travel agent or tour operator motivated them to purchase travel insurance. They admitted that they did not know about travel insurance prior to meeting with a travel agent or tour operator. Three-fourths of the respondents claimed that they bought travel insurance at the time of booking air ticket by paying nominal premium of ₹ 199 to ₹ 299 per person. Therefore, the option for purchasing a travel insurance policy should be made available on the ticket booking sites.

Uncertainty related to Covid-19: To the question "Are you ready to opt for travel insurance for future travel because of uncertainty related to Covid-19" 85% of the respondents said they were willing to buy, and the rest of the respondents were of the view that travel insurance is futile and unnecessary.

Cost: To the question "Do you feel travel insurance is expensive" mammoth 95% of respondents, i.e., 389 out of 410, were of the opinion that travel insurance is quite inexpensive.

5. Discussion

In India insurance is seen as one of the unsought products and people generally do not come forward on their own to buy. Moreover, travel insurance has a peculiar limitation that people do not understand its significance. The outlook towards the quality of life varies between married and unmarried respondents. The study reveals that married people are more inclined towards purchasing travel insurance. Moreover, highly educated young people opt for travel insurance and have a fair idea about it. The majority of respondents purchased travel insurance just because travel aggregators prompted them to buy one by instilling a sense of fear. Nowadays, the younger generation sees travel insurance as a risk management tool. Covid-19 made people realise the importance of insurance, and frequent guidelines on Standard Operating Procedures for Covid and resultant delay and cancellation of bookings have helped insurers increase their travel insurance policy sales.

6. Implications of the Study

This study reveals the role of education level and responsibility variables in the overall perception of individuals regarding travel insurance. The result of the study offers following recommendations to the managers and practitioners:

Effective collaboration with other market participants: The results of the study reveal show that tour operators and aggregators are the prominent influencers in persuading travellers to opt for travel insurance. Therefore, , general insurance companies offering travel insurance should tie-up with tour operators and tour aggregators to sell travel insurance policies to the customers as today's generation travellers book their trips or tickets through tour operators or web-based tour aggregators.

Aggressive marketing and communication campaign: Concerted efforts should be made to spread awareness about the benefits of travel insurance to the masses.

Incentivisation for travel insurance premium: Fourth, public insurance bodies should press hard for persuading government to make travel insurance premiums eligible for a tax deduction on the lines of health insurance premiums.

Delivering a sense of security: The fear appeal needs to be used by general insurance companies to such an extent that their promotional campaigns help travellers vanish the fear factor by providing a sense of security.

Use of AI based applications: There is a dire need to adopt cutting edge technologies like AI-based applications, Data Analytics, Blockchain, etc., for comprehending consumer behaviour, educating travellers about travel insurance and the benefits thereof.

Customisation of products: Finally, it is observed that travel insurance is seen as one of the most unsought insurance products and insurers are required to spread awareness about travel insurance extensively through various communication media. Travel insurance companies (if possible) need to offer customised policies to customers.

Embed travel insurance policy in travel related products: Moreover, travel-related companies (e.g., hotels, airlines, trip advisors) may work on including a complimentary travel insurance policy in their routine products and spread information about such complementary to the prospective clients. Last but not least, it is high time that insurance companies give due and adequate attention to the communication with prospective clients about the usefulness and risk coverage of travel insurance and help them regain confidence to travel.

7. Conclusion

In India, travel insurance is a relatively novel concept, and sizeable proportion of people are unaware about travel insurance. Covid-19 and subsequent restrictions like lockdowns, travel restrictions have resulted in chaos and uncertainties in travel itineraries. Moreover, the rise in accidents, delays and cancellations of

flights, etc. have contributed significantly to travel insurance penetration. Travellers are always at high risk and travel insurance serves as an essential tool for risk management. People need to be made aware of the concept of travel insurance and the benefits it offers. It is seen that married people with higher educational qualifications generally opt for a travel insurance policy. It is pertinent to mention here that web-based tour aggregators serve as sales representatives for insurers as they prompt messages to the customers at the time of trip booking. The study concludes that there is no significant difference between male and female respondents regarding their perceptions of travel insurance.

8. Scope for Future Research

The study's results need to be interpreted in light of the study's limitations. In carrying out this study, we did not cover questions that were beyond our scope but we would like to see them studied in future studies. These not yet covered questions should help guide further studies. We offer three main avenues for further research in future. First, many personal factors (e.g., prior experience in claiming insurance, unique traits, previous travel experience) were not taken into account in this study. Research in the future may include such variables to come up with more meaningful theoretical and managerial implications. Second, our study was conducted in one particular tourist destination. As such, the results may have very limited generalisability in other destinations. Finally, we did not include motivational factors, selection parameters, usage of Artificial Intelligence, Machine Learning etc., in the context of travel insurance. Studies in the future can extend the current research by including the above variables, which may have a bearing on travel insurance. TJ

References

1. Aswani, R., Ghrera, S. P., Chandra, S., & Kar, A. K. (2021). A hybrid evolutionary approach for identifying spam websites for search engine marketing. *Evolutionary Intelligence*, *14*(4), 1803-1815.
2. Choe, Y., Kim, H., & Choi, Y. (2022). Willingness to pay for travel insurance as a risk reduction behaviour: health-related risk perception after the outbreak of COVID-19. *Service Business*, 1-23
3. Chou P-L, Yao C-H (2011) Applying a mixed logit model approach to analyze china's travel insurance decision-making behavior. J Stat Manag Syst 14(6):1057–1066. https:// doi. org/ 10. 1080/ 09720 510. 2011. 10701 601
4. Fuchs, G., & Reichel, A. (2011). An exploratory inquiry into destination risk perceptions and risk reduction strategies of first time vs. repeat visitors to a highly volatile destination. *Tourism management*, *32*(2), 266-276
5. Hasan, A. A., & Abdullah, N. C. (2015). Compulsory travel insurance in Malaysia: some regulatory considerations. *Procedia-Social and Behavioral Sciences*, *172*, 344-351.
6. Karl, M. (2018). Risk and uncertainty in travel decision-making: Tourist and destination perspective. *Journal of Travel Research*, *57*(1), 129-146.
7. Kerr, G., & Kelly, L. (2019). Travel insurance: the attributes, consequences, and values of using travel insurance as a risk-reduction strategy. *Journal of Travel & Tourism Marketing*, *36*(2), 191-203.
8. Kock, F., Nørfelt, A., Josiassen, A., Assaf, A. G., & Tsionas, M. G. (2020). Understanding the COVID-19 tourist psyche: The evolutionary tourism paradigm. *Annals of tourism research*, *85*, 103053
9. Leggat, P. A., Carne, J., & Kedjarune, U. (1999). Travel insurance and health. *J Travel Med*, *6*(4), 243-248.
10. Leggat, P. A., & Leggat, F. W. (2002). Travel insurance claims made by travelers from Australia. *Journal of Travel Medicine*, *9*(2), 59-65.
11. Lo, A. S., Cheung, C., & Law, R. (2011). Hong Kong residents' adoption of risk reduction strategies in leisure travel. *Journal of Travel & Tourism Marketing*, *28*(3), 240-260.

12. Mitchell VW, Vassos V (1998) Perceived risk and risk reduction in holiday purchases: a cross-cultural and gender analysis. J Euromarketing 6(3):47–79

13. Mitchell, O. S., Poterba, J. M., Warshawsky, M. J., & Brown, J. R. (1999). New evidence on the money's worth of individual annuities. *American economic review*, *89*(5), 1299-1318.

14. Pizam, A., Jeong, G. H., Reichel, A., van Boemmel, H., Lusson, J. M., Steynberg, L., ... & Montmany, N. (2004). The relationship between risk-taking, sensation-seeking, and the tourist behavior of young adults: A cross-cultural study. *Journal of Travel Research*, *42*(3), 251-260.

15. Rawat, S., Rawat, A., Kumar, D., & Sabitha, A. S. (2021). Application of machine learning and data visualization techniques for decision support in the insurance sector. *International Journal of Information Management Data Insights*, *1*(2), 100012.

16. Ritchie, B. W., Chien, P. M., & Sharifpour, M. (2017). Segmentation by travel related risks: An integrated approach. *Journal of Travel & Tourism Marketing*, *34*(2), 274-289.

17. Sarmon, I., Curtale, R., & Hajibaba, H. (2020). Drivers of travel insurance purchase. *Journal of Travel Research*, *59*(3), 545-558.

18. Sönmez, S. F., & Graefe, A. R. (1998). Determining future travel behavior from past travel experience and perceptions of risk and safety. *Journal of travel research*, *37*(2), 171-177.

19. Sönmez, S. F., & Graefe, A. R. (1998). Influence of terrorism risk on foreign tourism decisions. *Annals of tourism research*, *25*(1), 112-144.

20. Tan, D., & Caponecchia, C. (2021). COVID-19 and the public perception of travel insurance. *Annals of Tourism Research*, *90*, 103106.

21. Tykocinski, O. E. (2008). Insurance, risk, and magical thinking. *Personality and Social Psychology Bulletin*, *34*(10), 1346-1356.

22. Williams, A. M., & Baláž, V. (2013). Tourism, risk tolerance and competences: Travel organization and tourism hazards. *Tourism Management*, *35*, 209-221

23. Yu, T. W., & Chen, T. J. (2018). Online travel insurance purchase intention: A transaction cost perspective. *Journal of Travel & Tourism Marketing*, *35*(9), 1175-1186.

24. Zalech, M. (2021). Socio-demographic features and risk perception as determinants of taking out travel insurance. *Tourism Analysis*, *26*(2-3), 2-3.

25. Grand View Research August 2022, Travel Insurance Market Size Worth $63.9 Billion By 2030 https://www.grandviewresearch.com/press-release/global-travel-insurance-market

26. IRDAI Annual Report, 2020-21, https://www.irdai.gov.in/admincms/cms/uploadedfiles/annual%20reports/Annual%20Report%202020-21.pdf

27. Quantum Market Research Survey of Australians' travel insurance behaviour 2017. https://www.smartraveller.gov.au/sites/default/files/2019-11/ICA-DFAT-Survey-of-Australian-Travel-Insurance-Behaviour-2017.pdf Retrieved from.

28. Quantum Market Research Traveller behaviour in South East Asia. 2018. https://www.smartraveller.gov.au/sites/default/files/2019-11/ICA-DFAT-Survey-of-Traveller-Behaviour-in-South-East-Asia-2018.pdf Retrieved from.

29. UNWTO (2020) World tourism barometer 18(5). https://doi.org/10.18111/wtobarometereng

30. Why resuming travel without Travel Insurance Post Covid-19 is a bad idea? & Plights of travellers and Insurance Companies after COVID-19, Policybazaar.com https://www.policybazaar.com/travel-insurance/articles/why-resuming-travel-without-travel-insurance-post-covid-19- bad-idea/

Study of the Impact of Covid Pandemic on the Persistency of Life Insurance Business in India

Sumesh Sheth
sumesh@niapune.org.in

Working as a faculty member (Life) at National Insurance Academy, 25 years' experience in Life Insurance industry in India and Singapore, 6 years in Teaching and Research, have number of publications pertaining to Life Insurance and Health Insurance.

Suparna Bedakihale
s.bedakihale@niapune.org.in

PGEP (IIMA-LIC) and Fellow of Insurance Institute of India, working as a Research Associate with National Insurance Academy (on deputation form LIC of India).

Bhaskar Nerurkar
bhaskar.nerurkar@bajajallianz.co.in

A certified Project management professional with Six Sigma black-belt certification and Fellow of Insurance Institute of India (Both Life and Non-Life) working as Head of Health insurance Products, Underwriting and Claims processes with Bajaj Allianz General Insurance Company, Pune

Divas Panjwani
divas.panjwani@hotmail.com

Mr. Divas is an experienced Marine Underwriter at Kuwait Reinsurance Company. He has gained a wealth of knowledge and experience in the insurance and reinsurance business, having worked in Kuwait, Oman, and the Indian insurance market for over 10 years. He is PhD scholar at National Insurance Academy, Pune and holds academic qualifications reflecting his commitment to profession and industry, including a PGDM in Insurance from National Insurance Academy, Pune, Fellowship from the Insurance Institute of India, and a Diploma in Insurance from the Chartered Insurance Institute in London, UK.

Abstract

Non-payment of renewal premium within a specific time under a life insurance policy result in lapsation of the contract discontinuing life cover of the life assured. The lapsation happening just within a short period of time after issuing a life insurance policy causes the major loss to all the stakeholders in the life insurance ecosystem. Hence, persistency of insurance policies is a critical aspect of life insurance business, and every life Insurer is interested in maintaining it to higher levels.

In India, the impact of a pandemic on persistency of life insurance in not yet represented well in literature. This study analyses the available secondary data to understand how policy persistency was impacted during the covid pandemic. The study also attempts to analyse primary data collected from the consumers to assess their perception towards the timely payment of premium and the need of life insurance during this pandemic.

The analysis shows that there was an impact of the covid pandemic on the persistency of life insurance policies as well as the perception of people towards the enhanced need of life Insurance during the pandemic. Future long-term studies in this area may help analyse the exact nature and retention of the positive impact of a pandemic to help the life insurers to improve their policy persistency.

Keywords

Life Insurance, Lapsation, Persistency, Persistency ratio, Renewal Premium.

Introduction

'Life Insurance' is purchased by the individuals to take care of their mortality risks and typically, Life Insurance policies are long-term contracts that run into several decades. The premiums under these policies can be paid under various modes or frequencies by the policyholders.

Under 'Single Premium' mode of payment, the entire premium under a policy is collected in lumpsum at the start of the contract itself. In case of other modes of premium payment such as monthly, quarterly, half-yearly or yearly, the renewal premiums are payable periodically over the lifetime of the policy.

For a single premium policy, the problem of discontinuance of the policy or cessation of the mortality risk cover under the policy does not arise. However, for policies with other modes of premium payment, if the policyholder fails to pay the renewal premium within a specified time, the risk cover under the policy ceases as per the terms of the policy and the policy is termed as a 'lapsed' policy. A lapsed policy can be revived to continue the risk cover by payment of outstanding premiums along with interest thereon and submission of satisfactory evidence of health, if necessary. However, if a lapsed policy is not revived within a stipulated time, ultimately the policy gets lapsed permanently making it impossible to continue the risk cover under the policy forever.

The lapsation of life insurance policies causes a heavy drain on the resources of the Life Insurers as well as the policyholders. Even the intermediaries lose their renewal commission on the lapsed policies. As there are considerable overheads associated with issuing a fresh life insurance policy, every life insurer tries to ensure that the policy once issued by the company continues or persists throughout the term of the policy.

Thus, the continuance or persistency of 'Life Insurance policies' or 'Life Insurance business' is very significant for the life insurers as it indicates the quality of business by the insurer and the financial health of the insurer. The persistency is measured in terms of a 'Persistency Ratio'. It is the ratio of the 'Total business in force' at the end of a time period and the 'Total business procured' at the beginning of that particular time period.

Persistency Ratio = Total business in force at the end of a 'UNIT' period/ Total business procured at the beginning of the UNIT period

Typically, the 'UNIT' period varies from a year to several years. In India, the 'Persistency Ratio' for Life insurance business is measured after a period of 13 months, 25 months, 37 months, 49 months and 61 months from the issue of the policies and the persistency data of all the Life Insurers is published in public domain, regularly.

As "Policy Lapsation" is one of the biggest drags on the economic efficiency of the Insurance Ecosystem, all the Life Insurers seek their persistency ratio to be as close

to hundred as possible. The Insurance Regulatory and Development Authority of India (IRDAI) expects the 13th month persistency of life insurers at a minimum of 90 per cent and the 61st month persistency at a minimum of 65 per cent. None of the Life insurers has achieved the expected level of persistency as of now.

The start of the year 2020 was the beginning of covid pandemic that drove the world to an abnormal situation, severely affecting all aspects of the human life. It created fear and anxiety in the minds of the people and brought consequent changes in their behaviour. Though the study of lapsation and persistency of life insurance has been an area of considerable interest in the developed countries, comparatively fewer studies are available in India as can be seen from the brief review of Indian literature in this area. Hence, it would be important and interesting to study the effect of the covid pandemic on the "Persistency" of Life insurance business in India.

The literature reveals that whenever mankind suffers from the natural disasters, people tend to seek protection from the risks associated with the disaster - like mortality risks, morbidity risks, property risks etc. This study is an attempt to understand the impact of pandemic on the minds of people and their actual behaviour towards continuance of the Life Insurance during the probable financial crunch. This study of the "one-of-a-kind situations" may bring out another dimension on the issue of 'Persistency' that may be used to improve upon the things and may come out to be of some value to all the stakeholders in the life insurance industry.

In the year 2020-21, the total number of non-single (premium) policies sold by all life insurers were 27.7 million and the first-year premium collected thereunder was Rs.1,022.85 billion. With such a huge business figure, any effort for even a one percent improvement in policy persistency in terms of number of policies could mean the continuance of 0.277 million policies and saving of a substantial amount of over Rs.10.2 billion in the system. The study regarding the impact of pandemic on the persistency of policies and on the perception of people towards the need of Life Insurance would be relevant as its findings may provide **some insights to improve and sustain the positive impact of the pandemic towards an improvement in the persistency of life insurance business**.

Review of Relevant Literature

The following are the pieces from literature related to policy persistency outside India.

- In 2015, Fier and Carson examined the possible link between catastrophe and the subsequent demand for insurance against mortality risk. In their research article they provided significant evidence of a positive co-relation between catastrophes and the measures of life insurance demand. They provided empirical evidence that the demand for life insurance in the states of the US which were directly affected by major catastrophes was significantly higher than life insurance demand in the non-affected states, in the year following the event.
- Similarly, an empirical study conducted in the US (Brown & Hoyt, 1999) provides evidence that the risk perceptions influence insurance purchasing behaviour. The research article reveals that the number of flood insurance policies sold during the period under study were positively corelated with the flood losses during the prior period. The research also says that if perceptions of the risk of flood loss are an important determinant of insurance purchases, **informational materials directed at increasing the public awareness of the danger** posed by the flood peril may be an effective means of increasing the purchase of flood insurance.

A few papers are available that cover the persistency aspect of life insurance policies and the reasons for policy lapsation in India.

- Persistency of Life Insurance policies is a major concern, and the industry has been suffering from heavy lapsation rates. Under normal circumstances, mis-selling of the life insurance products, loss of customers' confidence due to bad word of mouth from others, lack of faith on past performance of the insurance company, high premium rates, financial burden

for the policy holders, poor customer service, frequent changes of customer address, delay in getting renewal notices, low awareness about protection from life risk, inadequate skills of sales persons and improper training to the agents are the causes of policy lapsation for life insurers (Regha, V. and Kalawati, S. (2018).

- Insurance companies usually give business targets to their agents. Sometimes to meet those targets, agents sell fake policies of low sum assured that get lapsed ultimately. Sometimes, to please an agent who is a friend or relative, people purchase low sum assured policies without feeling any real need for life insurance and with no intention of continuing the policy. (Padmavathi, V. (2013).
- The 'Persistency Management framework of Life Insurance' of Capgemini (2013) identifies lack of needs-based selling, improper tracking of replacement of policies, limited reminder mechanisms for premium payment, non-identification of changing customer needs & financial circumstances and inefficiencies in addressing orphan policies - are the issues in policy management (persistency).
- The most recent paper that covered impact of pandemic on people's perception about life insurance persistency was published at NIA in Bimaquest (May 2021). It was based on a primary data collected through online survey (conducted during June 21 to July 7, 2020) of 321 executives from Life Insurance Companies. The participants were asked whether over next 6 months they see a drop in the persistency of life insurance as a result of the pandemic. Nearly 34% of the participants expected a high drop, 33% expected a moderate drop whereas remaining 33% expected a low drop in persistency in persistency.
- However, the emergence of pandemic in India and the consequent situations of social distancing and imposing lockdown seem to have paradoxical effects on the persistency of life insurance policies. In April 2020, the global reinsurer Swiss Re conducted an Asia-Pacific consumer survey to understand the reaction of consumers to the crisis. As per the report, almost a third of the consumers in India were feeling overwhelmed or anxious about their financial future. The survey has its implications for persistency of insurance policies as over one fourth of Indian policyholders were willing to sacrifice property and life insurance premium payments to ease their financial burden. But at the same time, as per the report, Indian consumers were second-most active in Asia-Pacific in seeking insurance, driven by financial and mental health concerns.

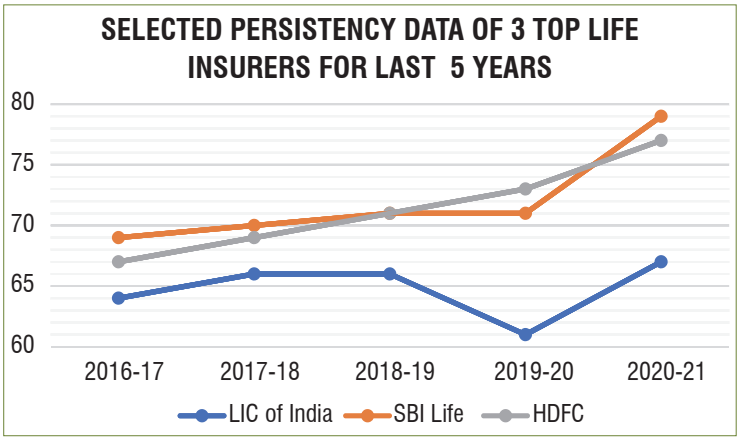
Research Design

The Study under consideration was conducted in October 2021 and it started with the analysis of secondary data to understand the impact of the pandemic on life insurance persistency in India. It was aimed to understand the present consumer perception towards the need of timely payment of life insurance premiums and to examine whether the consumers felt an increased need of life Insurance cover during the pandemic. It was aimed to check whether there is any apparent commonality between the consumer perception and the actual data for persistency to draw some conclusions.

Secondary Data Analysis

The study began with Secondary data analysis. During the pandemic period of F.Y. 2020-21, life insurers issued 28.17 million new individual policies, out of which LIC of India (LIC) issued 21 million policies (74.58%) and the private life insurers issued 7.16 million policies (25.45%). LIC and the top two private life insurer – namely SBI Life and HFDC Life -accounted for bulk of the life insurance business (84%) in India during F.Y. 2020-21. Hence, it was decided to restrict scope of the study to the persistency of policies of these top three life insurers. Also, though Persistency data is available in terms of "number of policies" as well as "premium", this study looks only at the persistency data based on number of policies in force at 13 months interval from the date of business.

Graph 1: Trend of 13 months persistency for "Number of Policies" of top 3 Insurers



(Source: IRDA Handbook and Public disclosures)

The long-term persistency trends of top 3 life insurers over a five-year period were analysed as shown in Graph I (the data is enclosed in Annexure 1).

At the Beginning of the Pandemic: Negative Impact on Persistency in the Year 2019-20

From table 1, for the period prior to the year 2019-20, we observe a small increase in persistency for all the three life insurers. During the year 2019-20, there is a drastic drop in the persistency ratio of LIC. SBI Life has shown the same rate of persistency as that of the last year while the growth rate of persistency of HDFC Life has come down from 2.9% to 2.82%.

Table 1: Year to year Rate of Change in persistency

	Growth in Persistency over the previous year (%) (Figure in bracket is actual persistency for that year)				Growth in Persistency over 5 years (%)
INSURER	2017-18	2018-19	2019-20	2020-21	
LIC of India	3.13(66)	0.00(66)	**-7.58(61)**	**9.84(67)**	**4.69**
SBI Life	1.45(70)	1.43(71)	**0.00(71)**	**11.27(79)**	**14.49**
HDFC	2.99(69)	2.90(71)	**2.82(73)**	**5.48(77)**	**14.93**

(Source: IRDA Handbook and Public disclosures)

It can be seen that in the year 2019-20, the pandemic had an overall negative impact on the persistency. It seems to be consistent with the survey done by NIA, Pune during the early period of pandemic in which over 67% of the respondents expected to see a high to moderate drop in persistency.

The Asia-Pacific consumer survey done by Global reinsurer "Swiss Re" in April 2020 also corroborate to some extent the effect of pandemic on life insurance persistency with almost a third of the consumers in India feeling overwhelmed or anxious about their financial future. This survey also showed that one fourth of Indian policyholders were willing to sacrifice property and life insurance premium payments to ease their financial burden.

Typically, as bulk of the Indian Life Insurance business is completed in the month of March, the renewal premiums also fall in the month of March. Hence, another reason for the initial drop in life insurance persistency during pandemic could be that people were unable to pay their premiums due in March 2020 (within the end of grace period for payment up to April 2020) during the early phase of lockdown. However, further study is needed to validate this reason.

Primary Data

Though there are many factors that affect persistency of Life Insurance, the study was supposed to focus only on the factor – the change in consumer perception towards Life Insurance during the pandemic. To assess the impact of pandemic on the Indian population and their perception towards life insurance, primary data was collected using convenience sampling method by serving a questionnaire through Google forms during the period – 6th October to 9th October 2021. Table 2 summarises the responses of all 324 individuals to the key questions pertaining to impact of covid pandemic on them and their perception and behaviour towards life insurance.

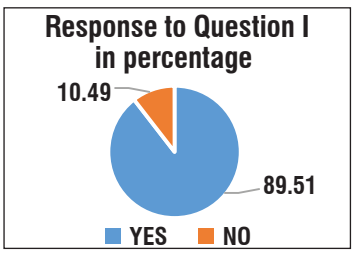
Table 2: Summary of Primary data

Summary of responses to the key questions by the respondents (Total 324 respondents)				
	Questions	Response		Total
		YES	NO	
I	Did the pandemic made you realize the importance of timely payment of Life Insurance premiums?	290	34	324
II	Did you feel the increased need of Life Insurance cover during the pandemic?	257	67	324
III	In your opinion, whether the pandemic has made people realize the importance of Life Insurance?	303	21	324

The results of the sample survey point out that:

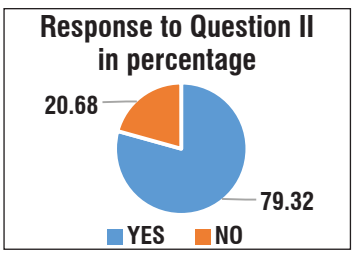
1) About ninety percent respondents have realised the importance of timely payment of life insurance premium during the pandemic as seen from Chart 1.

Chart 1



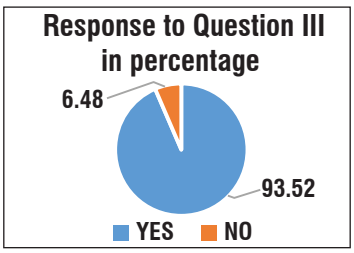
2) About eighty percent respondents felt increased need of Life Insurance cover during the pandemic as seen from Chart 2

Chart 2



3) Over ninety three percent respondents felt that the pandemic has made people realize the importance of life insurance as seen from Chart 3

Chart 3



Persistency in the Year 2020-21: Positive Impact during the Latter Part of the Pandemic

The primary data collected for this study during October 2021 shows that there is a positive impact of covid pandemic on the perception of an overwhelming majority of the respondents towards life insurance. Almost 90% respondents feel that the pandemic has made them realize the importance of timely payment of Life Insurance premiums, while 80% felt increased need of Life Insurance cover during the pandemic. Almost all respondents (except 21 people out of 324) were of the opinion that the pandemic has made people realize the importance of life insurance.

For the year 2020-21, there was an overall rise of 7.5% in the persistency of the entire life insurance industry. Referring to Table 1 it can be said that the findings of this survey related to customer perception about the need for and importance of life insurance validate the actual persistency data for the year 2020-21. All top 3 Life Insurers - who account for about 84% of all policies sold in India -have shown a sharp rise in persistency during the year 2020-21. SBI Life has shown the highest growth rate in persistency followed by LIC and HDFC Life. But since LIC sold more than 12 times the policies sold by SBI Life, the 9.84% increase in persistency shown by LIC is substantial.

The findings of the study based on sample consumer perceptions and the actual data of life insurance persistency indicate a definitive link between the "change in consumer perception towards life insurance due to the pandemic" and the "persistency ratio of life insurance".

These findings are consistent with the findings of the study done in the USA (by Fier and Carson) in 2015 in which it was shown that the demand for life insurance in the states of the US which were directly affected by the major catastrophes was significantly higher than the life insurance demand in the non-affected states in the year following the event.

Conclusion

The analysis of secondary data indicates that the covid pandemic had a definite positive impact on the life insurance persistency in the following

year. The analysis of primary data also supports these results and suggests that after covid pandemic, the consumers realised the importance of timely payment of renewal premiums. They also perceived an increased need for Life Insurance during the pandemic and the pandemic has made people realize the importance of life insurance.

It can be seen that there is a strong correlation between the positive perception of people towards life insurance as an effect of pandemic and the actual increase in the persistency of Life Insurance immediately after the pandemic, may be **even in the days of financial crunch**. It can be said that a change in people's perception has led to the actual rise in life insurance persistency and the people perception has still continued as indicated by the primary data.

Thus, it can be inferred that to change the customer's perception towards life insurance favourably, may be the key to improve life insurance persistency on a long-term basis.

Implications of the Study for the Life Insurance Ecosystem

The study under discussion has limited its scope to '13th month' persistency of life insurance business of the top three life insurers, based on their number of policies. It has not considered distinct effects of other factors such as mis-selling or poor servicing on the persistency of Life Insurance. The life insurance persistency may also vary with the type of insurance products, ticket size, mode of premium payment, the intermediary associated with the sale and the insurer.

An in-depth, large-scale study that takes into account all such factors may be undertaken to derive valuable insights. A long-term study related to consumer perceptions and the persistency of life insurance may lead to the ways to improve persistency sustainably. Outcome of such study may help identification of the parameters that have a positive impact on persistency. Utilization of these parameters even during normal times to influence consumer perception and their behaviour towards life insurance can ultimately help reduce policy lapsations and save huge resources of all the stakeholders from the Life Insurance ecosystem. This would be a win-win situation not only for the consumers, the life insurers, the intermediaries, and the other life insurance stakeholders but also for the national economy at large.

e-References

- Asia-Pacific consumer survey by Swiss Re April 2020 (https://www.swissre.com) accessed on 6 October 2021
- Browne, M., & HOYT, R. (2000). The Demand for Flood Insurance: Empirical Evidence. Journal of Risk and Uncertainty, Vol. 20 No. 3.
- Capgemini (2013). 'Persistency Management framework of Life Insurance'
- Fier, S., & Carson, J. (2015). Catastrophes and the Demand for Life Insurance. Journal of Insurance Issues, Vol. 38 No. 2.
- IRDAI Handbook for 2019-20 at https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_List.aspx?DF=Creport&mid=11.2 accessed on 6 October 2021
- Padmavathi, V. (2013). The Lapsation of Life Insurance Policies in India: Causes and Costs. Chartered Insurance Institute.
- Public disclosures of life insurance companies - Persistency data for 2020-21
- R Rajnikanth, Dr. Steward Doss (2021), Impact of COVID-19 Pandemic on the Life Insurance Industry, Bimaquest Volume 21, Issue 2, May 2021
- Regha, V. and Kalawati, S. (2018). A Study on Policy Holder's Satisfaction towards Life Insurance Corporation of India (LIC) with Special Reference to Coimbatore City. International Journal of Management Studies, Vol. 5

Annexure 1: Percentage of 13th month persistency for Number of Policies of top 3 Insurers

INSURER	YEAR				
	2016-17	2017-18	2018-19	2019-20	2020-21
LIC of India	64	66	66	61	67
SBI Life	69	70	71	71	79
HDFC	67	69	71	73	77

Obstacles in Expansion and Growth of the Micro Insurance Industry

Nimisha Rastogi
nimisha.rastogi23@bimtech.ac.in

As a recent MBA graduate from Birla Institute of Management and Technology with a specialization in insurance, Ms Rastogi enjoy researching about emerging technologies and their applications in the insurance industry. She is always keen and driven for learning the intricacies of this field.

Tanya Sharma
tanya.sharma23@bimtech.ac.in

Ms. Sharma is an insurance professional who has recently completed their post-graduation in Insurance, Currently working with an Insurtech venture and still in the process of learning new insights about this industry.

Abstract

More than 90% of Indians live without any form of social protection. This results in both lost lives and uninsured financial damages. This gap has grown even wider as a result of the pandemic due to labour mobility and mass unemployment. Although some areas, such as health insurance, are expanding, this growth surge is only felt by those in the middle class and above, leaving the most at-risk group still without insurance and at risk.

The general lack of financial literacy, which is a severe issue, has an impact on both how consumers view insurance products and how much faith they have in them. To safeguard against unpredictable events, it is crucial to increase awareness of how insurance works. Along with building trust, it's important to improve the financial literacy of rural and low-income populations to expand penetration.

Keywords

Micro Insurance, Low Premium, Protection Gap, Misselling.

Micro Insurance

A simple explanation of the micro insurance industry is that it is an insurance that operates by pooling risks, is financed by regular policy premiums, and is designed for the underprivileged rural people.

Micro insurance is primarily designed to protect against specific risks for low-income populations, with proportionate premium payments for probable risk, simple to understand plans and policies, low premium payments, maximum sums insured for this insured risk, and simple documentation for calamity claims, etc.

On November 30, 2005, IRDA published separate regulations for regulating and controlling purposes in the official gazette. The Micro Insurance Sector provides several insurance products that the rural population needs, including life and general insurance with a sum assured of ₹ 50,000 or less. It provides protection against death under life insurance policies, whereas health insurance covers things like hospitalisation costs for illness. Additionally, it provides the insured

with crop, livestock/cattle, and asset insurance options.

In India, a micro insurance policy is frequently mistaken for a low-premium insurance plan. That is untrue. There are numerous additional crucial considerations. Poor clients frequently:

- Reside in remote rural locations that necessitate a distinct channel of distribution for urban insurance products;
- Are frequently uneducated and ignorant of the idea of insurance, necessitating novel techniques to marketing and contracting;
- Because they cannot afford the same defences, they tend to encounter higher hazards than more affluent people. For instance, because they typically do not eat as well, work in dangerous conditions, and do not receive regular medical checkups, they are more likely to become ill;
- Possess limited experience working with official financial institutions, with the exception of the Linkage Banking Program run by the National Bank of Agriculture and Rural Development (NABARD);
- Frequently have greater transaction costs for policyholders. Thus, a middle-class, urban policyholder can reasonably send a completed claims form to an insurance company by making a brief phone call to the insurer, having the claims form delivered by mail, and then having the form returned by mail.
- For a low-income policyholder, filing a claim may necessitate a costly day-long trip to the nearest insurance office (missing a day of work), the purchase of a form, the payment of a typewriter to prepare the claim, mailing the claim, and then a lengthy drive home. In addition to the actual costs of doing this, low-income policyholders may feel uneasy during the procedure because clerks and other authorities are frequently condescending with such consumers and can make them feel uncomfortable.
- It takes much work to design micro insurance policies; it is not enough to merely lower the cost of current insurance policies.

Product Design Issues

- It takes much work to design micro insurance policies; it is not enough to merely lower the cost of current insurance policies.
- If insurers want to persuade intermediaries to switch businesses, they need to think more creatively about their products and interactions with them.
- Insurers would need to set their products apart from the market on a factor other than pricing if they wanted their life insurance policies to be appealing not only to clients but also to potential aggregators (agents like MFIs and NGOs).

Market Environment of Micro Insurers

In the absence of and whenever top-down procedures are ineffective, micro insurance units are developed. Many micro insurance companies are quasi-monopolies that operate in remote places without any outside competition. They are unable to diversify their risk portfolio across different types of damage, pool their risks with those of other companies, or cover risks over longer time periods.

The “micro” attribute of micro insurance units is amplified by this isolation. Additionally, the market environment in which micro insurers operate is characterised in particular by high client-base uncertainty with regard to ability-to-pay and understanding and acceptance of insurance; increased difficulties in securing policy renewal; difficulties in negotiating with service providers; securing fair unit cost of services; securing adequate quality of healthcare provided; predicting utilisation levels and loss ratios; and uncertainty related to utilisation levels and loss ratios. There are additional issues with health insurance, including the quality of service, the influence on equity, and the lack of sufficient choice of healthcare providers. Frequent changes in the reality of micro insurers exacerbate the concerns.

Micro insurance units can raise the question of whether they can even be regarded as risk underwriters given their “micro” size. Clearly, the answer to question is YES. Insurance

reverses the business cycle in that clients prepay the premium to the insurer when neither the insured nor the insurer knows whether or when there will be a financial return, unlike savings (when people retain ownership of their assets), loans (when people receive funds that they repay later), or spot transactions (when people exchange money for tangible products/services).

Micro insurers are therefore insurers if they collect a premium that results in the creation of a right to benefits. Clients must have confidence in insurers to have adequate capital to pay claims whenever future rights materialise since the relationship must be sustained over the long term. Therefore, we argue that micro insurers both carry and, in some situations, underwrite risk.

Marketing Strategies of Micro Insurance

- By highlighting its connections to Tata, Tata-AIG has been successful in gaining the trust of the potential micro insurance market. Tata is a reputable business, or at the very least, it is thought unlikely to misappropriate premiums from low-income customers. The connections they have with these partners might be used for the same purpose by other insurers who have reliable local partners.
- Public repayment of claims, such as in village meetings, is also critical. It provides a concrete illustration of the benefits of insurance.
- Exposure tours, where village leaders from villages with policyholders are sent to neighbouring communities to demonstrate the benefits of having insurance, is another technique for selling micro insurance. Also, claims denial should be well-managed and reasons for denial must be made clear to all the villages.
- Finally, much like with high premium insurance, it's crucial to monitor client satisfaction, especially with regard to lapses and non-renewals, and to have a mechanism in place to act on the data gleaned from this monitoring.

Expanding The Industry

The government and financial services regulators are concerned about the unequal participation in India's growth story. Financial inclusion is a pricey endeavour, though. Although the authorities have developed regulations to encourage financial inclusion, the economic and business models in place today are not suited for widespread success. The coverage of the economically marginalised groups in Indian society by micro insurance (life, disability, and health) is appallingly low and will remain so until regulators and insurers introduce policy changes and move past the conventional distribution models.

Demand must be created for micro insurance in order for it to be successful through raising awareness, developing focused, straightforward products, and, most importantly, streamlining the underwriting and claims administration procedures.

Some of the challenges that micro insurance faces in order to be an effective product for the poorer segments of our communities (at the base of the economic pyramid) include:

1. Micro-insurance is not widely known in the community, necessitating vigorous promotion of the idea.
2. Many businesses either do not believe that such projects will be profitable, or they have not yet figured out how to market their goods to those at the "bottom of the pyramid."
3. Technology is crucial for reducing transaction costs for such schemes and enabling novel concepts like remittance financing of micro insurance.
4. The premium must fulfil the market value of risk while yet being accessible to the poor for the micro insurance programme to be financially viable. Other factors to take into account include premium payment methods and policies, as well as claim administration.

Why Follow a Product Development Process in Micro insurance?

Product development is a challenging, resource-intensive task that commercial insurers often ignore.

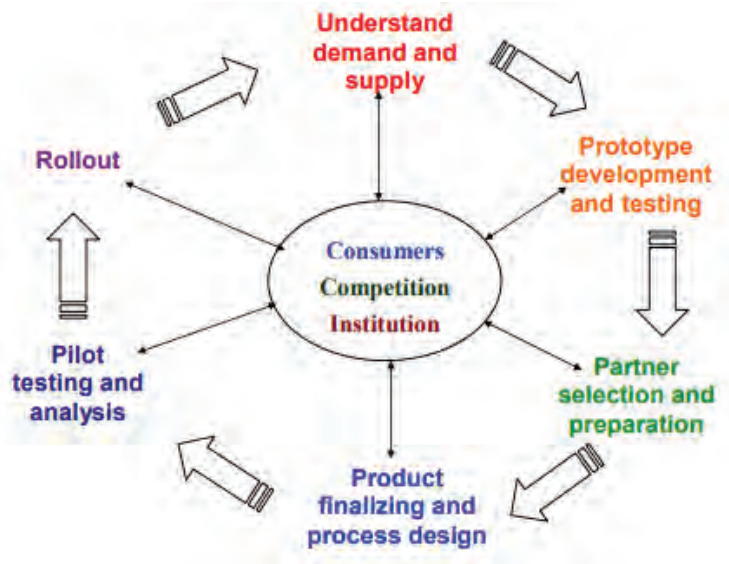
This is due to a mix of factors, including:

- A desire for a risk pool to grow as soon as feasible
- Limited coverage values that result in limited risk
- Not following a systematic product development process when creating other items since they think they are familiar with their target consumers.

Under pressure from insurers to launch quickly and because they frequently don't realise that they are best-positioned to approach the insurer with a product prototype that reflects demand from their consumers, MFIs frequently skip the product development phase. It is usual for an MFI or insurance to determine that a product would work well for their market before making it widely available. This nearly always leads to issues. Low purchase and retention rates demonstrate these challenges right away, and the long-term effects of such a "poor" product may make it more challenging to provide "better" products in the future. Insurance companies that skip the product development stage can see slower growth than usual, lose interest, and ultimately drop the product. This can make that company and its rivals even less likely to take part in the next micro insurance initiative, which hinders the creation of a vibrant micro insurance market despite potentially high levels of demand.

Structured Micro Insurance Product Development Process

The process for developing micro insurance products is continuous and is designed to guarantee that the right products are supplied to the market efficiently while being tracked for potential advancements. This procedure (given below) is used to create micro insurance products that are driven by demand. However, it is crucial that whatever service or product is subsequently provided meet the requirements of the organisations (insurers and distribution channels) that provide it.



Key Challenges Faced by the Micro Insurance Sector in India

1. Lack of knowledge & awareness

The view of insurance products and the level of faith people have in them are both impacted by the general lack of financial literacy, which is a serious problem. The use of insurance is not regarded as a necessary tool for long-term risk management. It is important to raise awareness of how insurance works to provide protection from unforeseeable disasters. To increase penetration, it is also necessary to foster trust among rural and low-income group communities and to raise their level of financial knowledge.

2. Trust

Miss-selling is very common in Insurance and is subject to fraud, and frequently encounters trust concerns. Building trust with customers in the low-income category is necessary.

3. Inaccessibility & claim settlement issues

Inaccessibility may result from issues with resource availability, price, or

difficult documentation. Many people in this target demographic lack the paperwork needed for insurance issuance and claims. Mismatches in names or other data, such as ages, might undermine service standards and cause problems with claim settlement.

4. High business acquisition Cost and servicing

Due to the smaller transaction sizes, the delivery costs associated with microfinancing are relatively expensive. The fixed cost is still significant because there are fewer policies delivered on a given day. The capacity of insurance providers to recruit distributors is also impacted by regulations on commissions in the insurance industry. The creation of need-based products that are economically viable for the company must be given careful consideration.

5. High rate of policy lapses

A policy may expire if the premium is not paid on time. This results in both, loss of the previously paid premium money and a loss of risk coverage.

6. Absence of need-based products

Particularly in rural locations, low-income populations have very distinct insurance needs from those in urban areas. There aren't many need-based, budget-friendly, and personalised products available for the micro insurance market. Customized product offers, such as crop protection, farming equipment, real estate, etc., are needed for this market niche.

References

1. Agarwal, Devika & Agrawal, Ashok. (2020). MICRO INSURANCE IN INDIA: ISSUES AND CHALLENGES.
2. Allianz A G, GT Z and U NDP Public Private Partnership, August, 2006, "Micro insurance Demand and Market Products- India", Website- undp.org
3. Enterslice. (2020, August 31). Challenges faced by Micro Insurance Sector in India. Enterslice. Retrieved January 31, 2023, from https://enterslice.com/learning/challenges-faced-by-micro-insurance-sector/
4. Findev Gateway. FinDev Gateway. (n.d.). Retrieved January 31, 2023, from https://www.findevgateway.org/
5. MicroNsure. (n.d.). Key challenges faced by micro insurance sector in India. LinkedIn. Retrieved January 31, 2023, from https://www.linkedin.com/pulse/key-challenges-faced-micro insurance-

Does size matter in Financial Performance of a Firm? Evidence from Private Life Insurance Companies of India

Dr. Kingshuk Adhikari
adhikari.au@gmail.com

Dr. Kingshuk Adhikari has a long teaching and research experience and has supervised many Ph.D Scholars. He has more than 80 papers published in journals of national and international repute and has also presented more than 90 papers in seminars and conferences. Currently he is working as Assistant Professor in Department of Commerce, Assam University Silchar.

Ankita Ghosh
ankitaghosh9411@gmail.com

Ankita Ghosh is working as Assistant Professor in Department of Commerce, Cachar College, Silchar. She has specialization in the field of Accounting and Finance. She has few papers published in UGC CARE Listed journals and has also presented few papers in national and international seminars.

Abstract

Insurance Industry got transformed after the introduction of privatization in India and soon after enactment of Insurance Regulatory and Development Authority (IRDA) Act in 1999, huge number of foreign insurers arrived in India and very soon competition in this industry soared. Many private life insurance companies were set up within a very short period of time. With the increase in the number of the companies, competition between the firms also increased. Now the insurance companies need to perform better to survive in the competitive market irrespective of its size, large or small. Since then, financial analysis of insurance companies has found greater relevance and thus the present paper aims at analyzing the financial performance of three life insurance companies of different sizes selected from those operating in Indian market during the period of ten financial years from 2010-2011 to 2019-2020. The study also aims at finding the significance of size of insurance companies on their financial performance. Various financial ratios relating to profitability, solvency and liquidity have been used in the study. Statistical tools, like mean, standard deviation and one way ANOVA have been used to arrive at the findings of the study.

Keywords

Total Assets, Current Assets, Current Liabilities, Profitability, Solvency, Liquidity.

Introduction

Insurance industry plays a vital role in the development of economy by pooling funds from people with an assurance of sharing risk and protecting them from any kind of uncertainty and investing the fund in productive areas for economic growth and development (Charumathi, 2012). The insurance companies deal with the funds of others, and thus the expertise with which they use the funds need to be constantly looked after. Analyzing the financial performance of the insurance companies help to identify the strength and weakness of the company (Adhikari and Ghosh, 2018). Insurance companies, large or small, have to face the fierce

competition in the market and also keep its resources available to survive and expand its hold over the market (Parida and Acharya, 2016). Financial performance analysis of all sizes of companies is important. Large firms are said to have competitive edge over the small firms and their financial performance also amplifies the same but converse is also found in some studies.

Review of Literature

Boyjoo, Ramesh, & Jaunky (2017) delineated some of the determinants of financial performance of insurance companies which included size of the company as one of the determinants and it had positive and significant influence on the performance of the insurance firm. Kripa & Ajasllari (2016) found how the determinants affected the financial performance of insurance companies. Ondigi & Willy (2016) revealed positive and significant influence of company size on the performance of insurance companies. Malik (2011) also found the positive impact of size of insurance companies on the Return on Assets or profitability. Suherman, Firmansyah, & Almunawwaroh (2019) found the influence of firm size, leverage and age on financial performance of insurers in Indonesia which was measured by ROA. It was found that size of the company had positive and significant influence whereas leverage and age had negative and insignificant influence on profitability. Derbali (2014) conducted a study on Tunisian insurance companies to identify the relationship between firms' profitability and its internal factors like leverage, tangibility, size, liquidity, age, risk and growth. Size was found to be inversely proportional to performance of insurance companies.

Birhan (2017) found that size of a firm did not influence its profitability but it proved to be statistically significant in relation to profitability of the firm. Lire & Tegegn (2016) revealed that underwriting risk and solvency ratio were significant and positive whereas size and growth were insignificant and negative to the profitability of insurers. Bardhan, Dey and Adhikari (2015) found that size of the firm had significant and positive relation with the financial performance of insurance companies. Similar findings were found in studies conducted by Berhe & Kaur (2017), Badea (2017) and Meher & Zewudu (2020).

Objectives of the Study

1. To study the size wise performance of life insurance companies of India with respect to profitability.
2. To study the size wise performance of life insurance companies of India with respect to solvency.
3. To study the size wise performance of life insurance companies of India with respect to liquidity.

Hypotheses of the Study

1. Profitability of life insurance companies of different sizes does not differ significantly.
2. Solvency of life insurance companies of different sizes does not differ significantly.
3. Liquidity of life insurance companies of different sizes does not differ significantly.

Data Source and Methodology

The objective of the study is to analyze the financial performance of the private life insurers of India over the study period of ten financial years i.e., from 2010-11 to 2019-20. Secondary data from Insurance Statistics Handbook published annually by Insurance Regulatory and Development Authority (IRDA) and also annual reports of various life insurance companies were used. In order to conduct the study, companies have been grouped under three categories according to the size of the companies on the basis of average total assets held by the respective companies. In this study, the average total asset has been used as a proxy of the size of companies and thus their ranks have been determined based on the average total assets during the period of study. Hence, the companies have been grouped into three strata: Large, Medium and Small size. Insurers with higher average total assets for the complete study period were grouped under Large firms, insurers with average total assets at moderate level were put under Medium firms and insurers with very low average total assets were grouped under the head Small firms. In this way, after making three strata, one company from each of these three strata has been selected randomly. The selected companies are ICICI Prudential Life Insurance Company Ltd. from large size category, India First Life

Insurance Company Ltd. from medium size category and Sahara India Life Insurance Company Ltd. from small size category. Thus, the study adopts stratified random sampling technique to select the companies. To analyze the financial performance, few financial ratios of profitability, solvency and liquidity have been used. Further various statistical tools like mean, standard deviation and one-way ANOVA have been used in the study.

Table 1: Brief Profile of the Sample Insurance Companies

Size of Firm	Insurance Company	Average Total Asset (2011-2020) (in Lakh)	Date of Registration	Foreign Collaborators
Large	ICICI Prudential Life Insurance Company Ltd.	10883626.8	24th Nov, 2000	Prudential Corporation Holdings Ltd. UK
Medium	India First Life Insurance Company Ltd.	880584.6	5th Nov, 2009	Carmel Point Investments India Pvt. Ltd.
Small	Sahara India Life Insurance Company Ltd.	136159.8	6th Feb, 2004	---

Source: www.irdai.gov.in & Annual Reports of respective insurance companies

Scope of the Study

1. The study is based on data relating to select financial parameters and covers a period of ten (10) years (from 2010-11 to 2019-20) only.
2. Only four specific ratios relating to profitability, solvency and liquidity of the life insurance companies have been used to arrive at the findings of the study.
3. The study considers only one life insurance company from each of the three stratum created on the basis of the size (Average Total Asset from 2011 to 2020) of the companies.

Limitations of the Study

1. The study is dependent upon secondary data and the nature of secondary data has its own limitations which can hardly be overlooked.
2. The study is not free from the inherent constraints of the specific ratios used for the purpose of the evaluation of profitability, solvency and liquidity of life insurance companies.
3. The study considers only three (03) numbers of life insurance company taking one from each of the three stratum created on the basis of the size (Average Total Asset from 2011 to 2020) of the companies which has its own inherent limitations.

Results and Discussion

Table 2: Ratio of Profit Before Tax to Net Premium

Size of firm	Company	Mean	SD	F-value	p-Value
Large	ICICI Prudential	0.0803	0.03328	12.823	0.000
Medium	India First	-0.0137	0.03435		
Small	Sahara Life	0.0975	0.07812		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (Various issues)

Table 2 portrays the mean value of ratio of Profit Before Tax to Net Premium of the three private insurance companies for a period of ten financial years from 2010-11 to 2019-20. The ratio indicates the operating performance of life insurance companies. The value of the ratio indicates the capacity of a company to be able to generate profits out of the net premium earned per unit. Higher ratio indicates higher profitability of an organization and vice versa (Tomar, Sainy, & Gupta, 2019). Sahara Life despite being a small size company has highest profitability followed by ICICI Prudential which is a large size company. India First, a medium size firm has shown negative profitability over the study period. Thus, it can be said that profitability is the highest in case of small firms followed by large and medium sized firms.

The table 2 also portrays the value of standard deviation in the ratio of Profit Before Tax to Net Premium. The results state that Sahara Life (Small) has highest variation in the ratio over the period of study followed by India First (Medium) and ICICI Prudential (Large). Thus, consistency in the ratio is more pronounced in large firm followed by medium firm and small firm. The ratio of profit before tax to net premium shows a volatile picture in case of Sahara Life (Small Firm). Though being a small firm Sahara Life operates at a small scale as compared to other two insurers selected for the study, the volatility is pronounced in case of Sahara Life which needs to be taken care of by the management. In fact, Sahara Life could not register a steady picture in terms of collection of premiums during the period of study. In the year 2017, the report of the Administrator appointed by IRDAI also corroborated the fact the governance system in Sahara Life was at stake and collection of new premiums of the company has come down significantly, though in the initial years of the study period Sahara Life could register a good performance despite being small firm (IRDAI Order, 2021). It is because of this factor, the value of standard deviation with respect to this ratio in case of Sahara Life is much more higher as compared to other two counterparts selected for the study.

One-way ANOVA has been used to find if there exists any relationship between firm size and profitability of the companies. The results disclose that at 5% level of significance, the p-value is significant since it is less than 0.05. Thus, it indicates that the firm's profitability varies across the size of the insurance companies.

Table 3: Ratio of Profit Before Tax to Total Assets

Size of firm	Company	Mean	SD	F-value	p-Value
Large	ICICI Prudential	0.014449	.0049180	12.453	0.000
Medium	India First	-.007538	.0152016		
Small	Sahara Life	0.014007	.0111926		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (Various issues)

Table 3 reveals the mean values of the ratio of Profit Before Tax to Total Assets of the three private insurance companies selected under study for a period of ten financial years from 2010-11 to 2019-20. The ratio indicates the efficiency of the management in generating returns from the assets of the company (Kumar, 2018). The higher the ratio, higher is the profitability of the firm. The figures indicate that the mean value of the ratio is highest in case of ICICI Prudential which is a large size company followed by Sahara Life, a small size company. India First, a medium size firm has shown negative profitability over the study period.

The table 3 also portrays the value of standard deviation in the ratio of Profit Before Tax to Total Assets. The results state that India First (Medium) has highest variation in the ratio over the period of study followed by Sahara Life (Small) and ICICI Prudential (Large). Thus, consistency in the ratio is more pronounced in large firm followed by small firm and medium firm.

One-way ANOVA has been used to find if there exists any relationship between firm size and profitability of the companies. The results disclose that at 5% level of significance, the p-value is significant since it is less than 0.05. Thus, there exists statistical evidence that the firm's profitability varies across the size of the insurance companies.

Table 4: Ratio of Shareholders' Fund to Total Assets

Size of firm	Company	Mean	SD	F-value	p-Value
Large	ICICI Prudential	0.0557	0.00961	44.666	0.000
Medium	India First	0.1124	0.07928		
Small	Sahara Life	0.2511	0.02032		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (Various issues)

Table 4 depicts the mean value of ratio of Shareholders' Fund to Total Assets of the three private insurance companies for a period of ten financial years from 2010-11 to 2019-20. The ratio shows the proportion of total assets financed with owners' equity rather than outsider's funds. Higher value of this ratio indicates financial stability of the company in the long run (Rao & Rao, 2019). This ratio reveals the solvency position of the companies i.e., its capacity to meet the obligations they face when it comes to making payments on claims for insurance policies. High solvency ratio implies good financial health to deal with any surge in claims and minimize the risk of bankruptcy (Surya, et al., 2021). Highest solvency could be found in case of small firm Sahara Life followed by India First which is a medium size company and ICICI Prudential, a large size company. Thus, it can be said that solvency is highest in case of small firms followed by medium and large sized firms. However, the ratio of Shareholders' Fund to Total Assets of all the three companies need to increase atleast upto 0.50 so that these companies remain capable to repay the liabilities incase of liquidation. At present, all the three companies have registered a very low ratio of Shareholders' Fund to Total Assets which needs interference by the regulators to save the money of policy holders (Bradhan, et al., 2015).

The table 4 also portrays the value of standard deviation in the ratio of Shareholders' Fund to Total Assets. The results state that India First (Medium) has highest variation in the ratio over the period of study followed by Sahara Life (Small) and ICICI Prudential (Large). Thus, consistency could be found more in large firm followed by small firm and medium firm in case of solvency.

One-way ANOVA has been used to find if there exists any relationship between firm size and solvency of the companies in table 4. The results disclose that at 5% level of significance, the p-value is significant since it is less than 0.05. Thus, it indicates that the firm's solvency varies across the size of the insurance companies.

Table 5 depicts the mean value of ratio of Current Assets to Current Liabilities of the three private insurance companies for a period of ten financial years from 2010-11 to 2019-20. The ratio shows the capacity of the firm to convert the short-term assets to cash and meet the short-term liabilities from the available resources (Hantono, 2018). Higher value of this ratio indicates higher liquidity and vice-versa. Highest liquidity could be found in case of small firm Sahara Life followed by India First which is a medium size company and ICICI Prudential, a large size company. Thus, it can be said that liquidity is the highest in case of small firms followed by medium and large sized firms.

Liquidity positively affects the financial performance of insurance companies. Although the nature of business of life insurance companies does not demand higher liquidity in the short run, the aspect of liquidity factor cannot be altogether set aside. The insurance firms are expected to decide the optimum level of liquidity so that the firm can run its business profitably without compromising the liquidity aspect (Kariuki, et al., 2021). Higher level of liquidity may prove to

Table 5: Ratio of Current Assets to Current Liabilities

Size of firm	Company	Mean	SD	F-value	p-Value
Large	ICICI Prudential	0.7409	0.22584	18.003	0.000
Medium	India First	1.7499	1.01522		
Small	Sahara Life	3.1289	1.14588		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (Various issues)

be expensive and very low level of liquidity may create a situation called cash crunch. The current ratio of Sahara Life (Small Firm) is too high which implies that the company could have managed the funds in a more efficient way. The management of Sahara Life needs to re-orient its strategies in order to manage the fund more effectively in the years to come without keeping the funds idle in current assets.

The table 5 also portrays the value of standard deviation in the ratio of Current Assets to Current Liabilities. The results state that Sahara Life (Small) has highest variation in the ratio over the period of study followed by India First (Medium) and ICICI Prudential (Large). Thus, consistency could be found more in large firm followed by medium firm and small firm.

One-way ANOVA has been used to find if there exists any relationship between firm size and liquidity of the companies in table 5. The results disclose that at 5% level of significance, the p-value is significant since it is less than 0.05. Thus, it implies that the firm's liquidity varies across the size of the insurers.

Summary and Conclusion

Out of three life insurers, the financial performance has been relatively sound in case of small firm i.e., Sahara Life. Despite being a small size firm, it has shown a good performance, but its performance is not stable during the study period which needs further investigation. The performance is much stable in case of large firms as found from standard deviation. Medium sized firm has better performance in solvency and liquidity than large firm but it shows negative performance in case of profitability. One way ANOVA test has been used to test the hypotheses and it has been found that there exists significant difference in the financial performance across the size of the insurance companies. Thus, this study negated the results of past studies showing large firms could only have great financial performance but small firms could also have good financial performance as the small firm in the study has shown better performance in profitability, solvency and liquidity. The major concern for all the three life insurance companies under consideration is that the solvency ratio of all the companies is at a very low level and it needs attention of the management in order to create a cushion in case of any financial distress.

Managerial Implications of the Study

In the present millennium, the competition has gained momentum with the entry of privately owned companies in the Indian life insurance market. So, life insurers, irrespective of its size, are expected to strive on a continuous basis to earn profit. However, care should also be taken to consolidate the financial position of insurers by maintaining a sound governance mechanism. The study will provide an insight to the managers for understanding the financial performance of different sizes of life insurance companies. In this attempt, all the ratios relating to profitability, solvency and liquidity ratios are to be considered which will provide basic guidelines to the management about various aspects of financial performance of life insurers.

Scope for Future Research

1. Research may be conducted by including some other ratios to analyze the financial performance of life insurers.
2. Research may also be conducted in future for other life insurers of India.
3. Research may be carried out for analysing financial performance of life insurers of different time periods.
4. In future, more number of life insurance companies may be considered in each of the stratum in order to assess the variation in financial performance of companies within the stratum.

IJ

References

Adhikari, K., & Ghosh, A. (2018). Financial performance of private sector life insurance companies in India: A comparative study. *EPRA International Journal of Economic and Business Review, 6*(2), A60-A62.

Bardhan, M. K., Dey, N. B., & Adhikari, K. (2015). Capital Structure of insurance companies in India- An analytical study. *EPRA International Journal of Economic and Business Review, 3*(3), 58-65.

Badea, I. C. (2017). Literature review

on the determinants of insurer's financial performance. *Annals of the "Constantin Brâncuşi" University of Târgu Jiu, 1*, 206-212.

Berhe, T. A., & Kaur, J. (2017). Determinants of insurance companies' profitability analysis of insurance sector in Ethiopia. *International Journal of Research in Finance and Marketing, 7*(4), 124-137.

Birhan, M. (2017). Determinants of Insurance Company Profitability in Ethiopia (Case Study on Nile Insurance, Dire Dawa Branch). *European Journal of Business and Management, 9*(16), 17-24.

Boyjoo, T. I., Ramesh, V., & Jaunky, V. C. (2017). Determinants of teh Mauritian life insurance industry's performance- An empirical study. *International Journal of Management and Applied Science, 3*(5), 129-134.

Charumathi, B. (2012). On determinants of profitability of Indian life insurers- An empirical study. *Proceedings of the World Congress on Engineering, 1*.

Derbali, A. (2014). Determinants of performance of insurance companies in Tunisia: the case of life insurance. *International Journal of Innovation and Applied Studies, 6*(1), 90-96.

Dey, N. B., Adhikari, K., & Bardhan, M. R. (2015). Factors determining financial performance of life insurance companies of India- An empirical study. *EPRA International Journal of Economic and Business Review, 3*(8), 42-48.

Hantono. (2018). The effect of current ratio, debt to equity ratio, toward return on assets (case study on consumer goods company). *Accountability, 7*(2), 64-73.

IRDAI. (2017). Order no. IRDA/F&A/ ORD/MISC/176/06/2017 dated 28th July, 2017.

Kariuki, D. W., Muturi, W., & Njeru, A. (2021). Influence of Liquidity on Financial Performance of Insurance Companies in Kenya. *Journal of Agriculture, Science and Technology*, 20(3), 94-101.

Kripa, D., & Ajasllari, D. (2016). Factors Affecting the Profitability of Insurance Companies in Albania. *European Journal of Multidisciplinary Studies, 1*(1), 352-360.

Kumar, B. (2010). Insurance Industry and its Financial Ratios. *International Journal of Research in Social Sciences, 8(*10), 588-592.

Lire, A., & Tegegn, T. (2016). Determinants of Profitability in Private Insurance Companies in Ethiopia. *Journal of Poverty, Investment and Development, 26*, 85-92.

Malik, H. (2011). Determinants of insurance companies profitability: An analysis of insurance sector of Pakistan. *Academic Research International, 1*(3), 315-321.

Meher, K. C., & Zewudu, T. (2020). Determinants of Firm's Internals & Macroeconomic Factors on Financial Performance of Ethiopian Insurers. *DLSU Business & Economics Review, 29*(2), 71-80.

Ondigi, A., & Willy, M. (2016). Factors affecting profitability of insurance firms: Case of firms listed on Nairobi Securities Exchange. *Internationl Journal of Economics, Commerce and Management, IV*(9), 286-298.

Parida, T. K., & Acharya, D. (2016). Competition in Indian life insurance industry: Post liberalisation evidence. *International Journal of Business Competition and Growth, 5*(1/2/3), 110-136.

Rao, S. K., & Rao, K. H. (2019). Performance appraisal in Indian life insurance companies through CARAMEL approach. *International Journal of Resarch in Social Science, 9*(5), 172-183.

Suherman, M., Firmansyah, I., & Almunawwaroh, M. (2019). Determinanats of Sharia insurance company profitability. *AFEBI Accounting Review, 4*(1), 41-49.

Surya, M., Sudha, B., Priyanka, T., & Beham, N. S. (2021). Financial performance analysis of Star Health and Allied Insurance Company Limited in India. *Kala Sarovar*, *24*(1), 24-32.

Tomar, P., Sainy, M., & Gupta, R. (2019). Profitability analysis of Insurance companies: A case of private life insurers. *UNNAYAN: International Bulletin of Management and Economics, 10*, 318-330.

Balancing the Channel-Mix as the Key to Life Insurance Growth

Dr. Tanmay Pant
Saitanmay11@gmail.com; tanmay.ibs@srms.ac.in

Dr. Tanmay Pant is currently working as an Assistant Professor in Management at SRMS IBS, Lucknow. A Ph.D. in life insurance distribution from Jaypee University of Engineering & Technology, Guna (M.P.), Dr. Tanmay has an MBA (Marketing) degree from the University of Lucknow along with a UGC-NET (Management) certification. Besides, he is a Licentiate of the Insurance Institute of India, Mumbai and poised to be an Associate soon. An acclaimed writer, Dr. Tanmay won an article writing competition organised by the Entrepreneurship Cell of the Indian Institute of Management (IIM), Kashipur. An experienced academician, Dr. Tanmay has had a substantial stint in the industry, notably in sales & training in the BFSI industry, bringing thus, a fine blend of the two fields into his teaching. His teaching interests include Marketing, Insurance, Business Strategy, Managerial Economics, Marketing of Services, and Sales & Distribution. His research interests revolve around the distribution aspect of life insurance, development of teaching cases in marketing, and qualitative research.

Dr. Shekhar Singh
shekhar.iiitm@gmail.com; shekhar.singh@juet.ac.in

Dr. Shekhar Singh completed his MBA from ABV-IIITM, Gwalior and finished his PhD from JUET, Guna. After completing his post-graduation, he worked in MNCs like F1F9 India Pvt. Ltd and Ernst & Young Pvt. Ltd. In the course of 4 years in the industry, he developed his area of expertise in financial modelling in the area of project finance in PPP and infrastructure sector. With a teaching experience of over 12 years at JUET, Guna since August 2010, he has developed competence in public sharing and delivery of knowledge through classroom teachings. He has been involved in teaching and developing courses like financial management, managerial economics, project management, financial markets and business statistics.

Abstract

One of the most significant factors for lack of insurance growth in India could arguably be the lop-sidedness of distribution channel-mix of life insurance companies. Ironically, this comes at a time when India still lags far behind in terms of insurance penetration. The channel-product fit is another area of concern that begs to be addressed. The balance of channel-mix with representation of all the channels namely agents, bancassurance (corporate agents), and direct business remains under scrutiny, more so with life insurance firms claiming to have a multichannel approach but with only one or two dominant channels up and running on the ground. This paper addresses the key concerns above and suggests company-category distribution channel strategies and designing products best suited for particular channels. We believe this would help establish credentials of firms in the longer run and also provide ground for further research in this niche arena.

Keywords

Bancassurance, Balance, Distribution, Insurance Penetration, Multichannel Approach.

Introduction

Distribution, as an important cog in the wheel of fortune of insurance companies in India, ironically has not been given much significance either in academic research or in practice. Insurance, as an industry is probably more dependent on sound distribution than most other industries and calls for a concerted effort on part of the companies to design distribution strategies that are in-sync with the requirements. Mehta (2015), considers distribution as one the weakest links, leading possibly to low insurance penetration numbers (Pant &Arya, 2019) {see figure 1}. These low numbers vis-à-vis world numbers – and in Asia, too – manifest as a protection gap as well, and the onus of bridging the gap, we believe, lie on distribution to a large extent. It took a pandemic of Covid19's magnitude to give the above numbers a huge fillip in 2021; historically they have not shown significant traction over the years for both life and non-life segments.

For all the talk of a multi-distribution channel-mix, the same has not reflected on the ground as most companies are seen to be rallied majorly by one or at the most two channels (Pant &Arya, 2019). During the course of this paper, we would like to limit our self to the life insurance space, and our contribution to the area by virtue of this paper, should be seen from that lens only.

The agents, bancassurance, and direct channels are the major contributors for life insurance companies in India and most companies claim to have a well-defined customer-centric multi-channel distribution in order (HDFC Life Annual Report, 2021). That said, the share of bancassurance channel has increased over time in case of private players, consigning the agency to the side lines – a situation far removed from the heydays of the agency reign – and the direct channel (including online) has also shown ascendancy (mostly on account of digitalization of businesses) {see figure 2}.

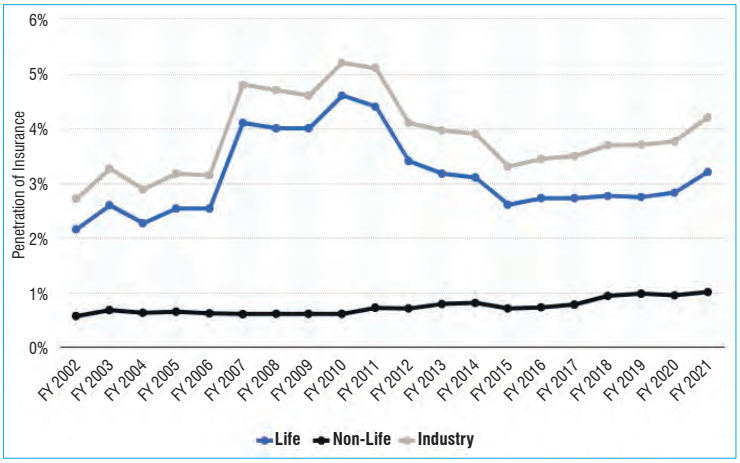


Figure 1: Insurance penetration numbers through the years {source: Statista, 2022}

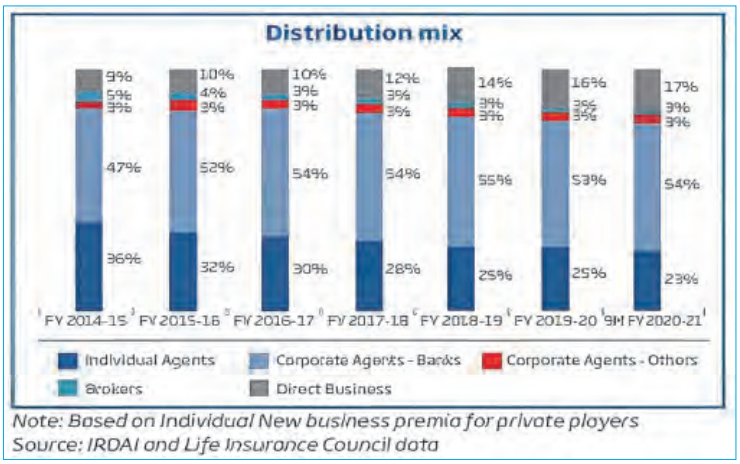


Figure 2: Distribution-mix for private players through the years {source: HDFC Life Annual Report, 2021}

While, no study in life insurance in India is complete without the mention of the Life Insurance Corporation (LIC) of India, the distribution problem is manifested in a different way in LIC: the distribution-mix, in contrast to the private players,is

agent-heavy and with a changing landscape, LIC too has got its act together by entering into a major banking tie-up with Axis Bank to drive volumes through bancassurance. A deeper insight from figure 2 would reveal that for the private life insurance firms – that are majorly represented by bank promoted/ supported firms but also include non bank promoted ones – over the years, the bancassurance (corporate agents-banks) channel brings in a substantial chunk of the new premium followed by the agents and further followed by the direct business.

In this context it is important to share that majorly speaking, the private players (all of 23 in number) are mainly led by bank-promoted/ supported companies like HDFC Life (HDFC Bank), ICICI Prudential (ICICI Bank), SBI Life (SBI), and PNB Metlife (PNB). The other major private players like Max Life, Bajaj Allianz Life, and Birla Sun Life, too have strategic banking tie-ups. The recent open architecture in bancassurance has also helped matters in driving bancassurance numbers.The companies in India could be classified broadly as either bank-promoted/supported companies or non bank-promoted supported companies. On the basis of origin and ownership, further, the bank-promoted/supported companies could be classified as ones promoted/supported by a public bank {SBI Life & PNB MetLife} and ones promoted/supported by a private bank {HDFC Life & ICICI Prudential}. Also, the non bank-promoted/supported companies can be classified as ones in the private sector {Max Life & Bajaj Allianz} and ones in the public sector (LIC being the sole company in thepublic category) {see figure 3}.

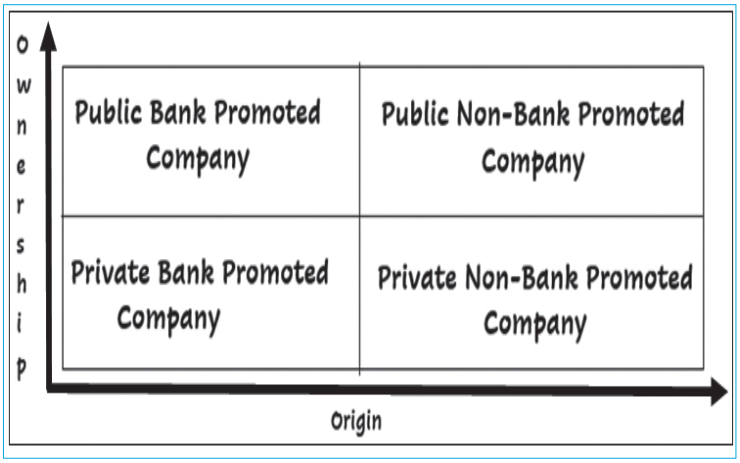


Figure 3: Categories of life insurance companies in India {source: Pant, T (2021)}

In doing a within-category analysis and across category analysis (as per figure3), the author {Pant, T (2021)}, analyzing distribution trends over the course of 40 quarters (2009-2019) has found that while bank promoted/ supported companies are largely driven by bancassurance – varyingly so, within and across the categories of firm mentioned above – agents, too have shown decent presence in some companies. Direct channel (including online) has shown promise, of late. Analysis within and across the non bank promoted/ supported category has also reflected the same trend albeit, a bit differently. The overarching distribution channel-mix trend for all the private players taken in this study (SBI Life, PNB MetLife, HDFC Life, ICICI Prudential, Max Life, Bajaj Allianz) over the course of 40 quarters reflect strong bancassurance numbers, shrinking agency numbers, and an increasing direct business, with a few exceptions. LIC, in stark contrast to the private players has a vastly different distribution set up. Though most of the companies are still to carve out a balanced distribution mix, the distribution problem is manifested differently for each company.

Distribution Dilemmas of Individual Firms

As mentioned, the distribution dilemmas of the firms shown in figure 3, are different. For premium through both individual and group policies, over a 40-quarter period, the firms have shown different distribution trends. ICICI Prudential, though driven by bancassurance, has shown decent agent numbers during the course of 40 quarters. In the same time, HDFC Life has far too little agent numbers to show (figures 4 & 5).

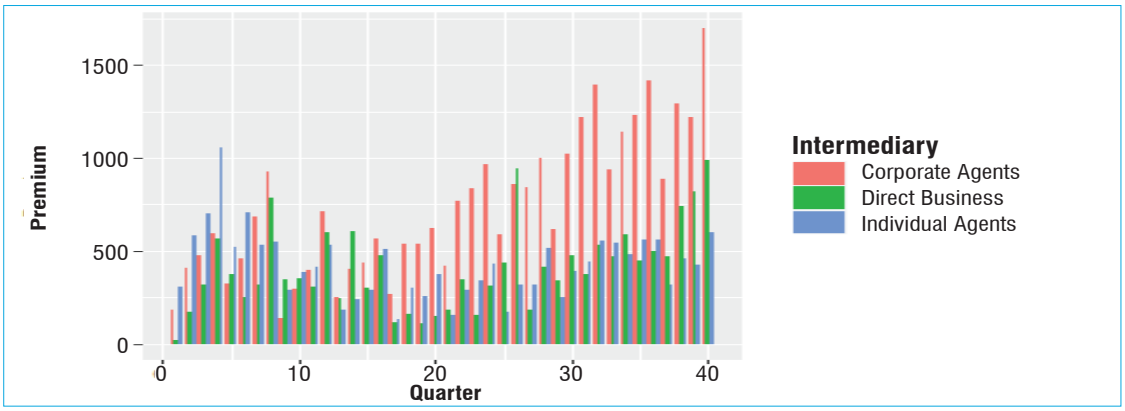


Figure 4: Channel performance w.r.t. premium numbers for ICICI Prudential {source:Pant, T (2021}

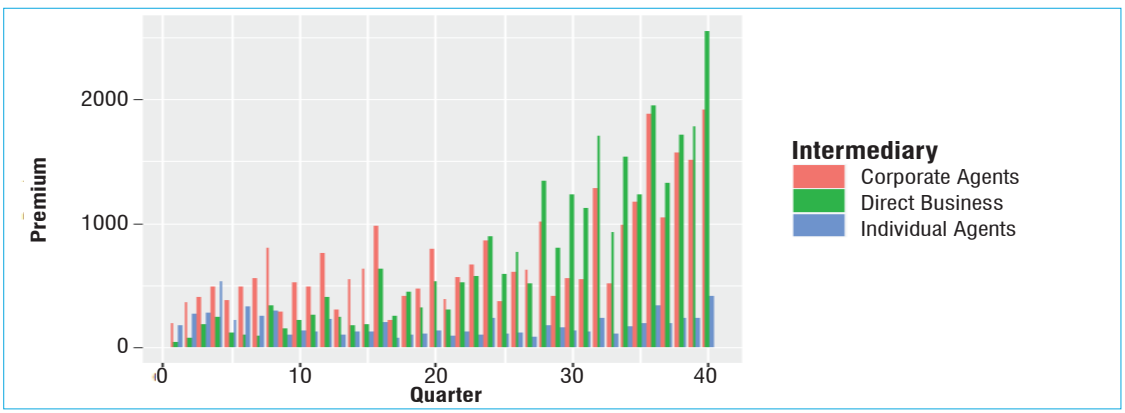


Figure 5: Channel performance w.r.t. premium numbers for HDFC Life {source:Pant, T (2021}

Figures 6 &7, reveal that for both SBI Life and PNB MetLife, the bancassurance numbers have been pretty high but the scale of operations of PNB MetLife is quite less and reflects through lesser sales even through bancassurance. Agents, have performed relatively well for SBI Life than PNB MetLife.

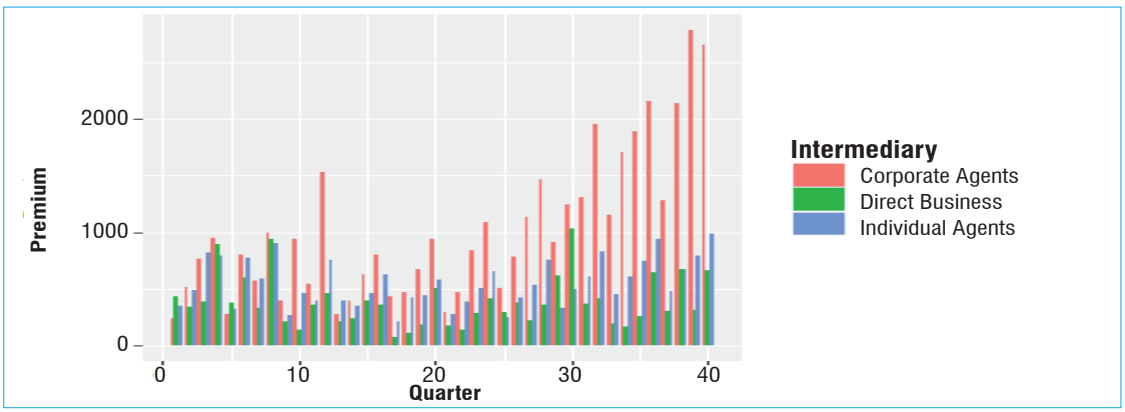


Figure 6: Channel performance w.r.t. premium numbers for SBI Life{source:Pant, T (2021}

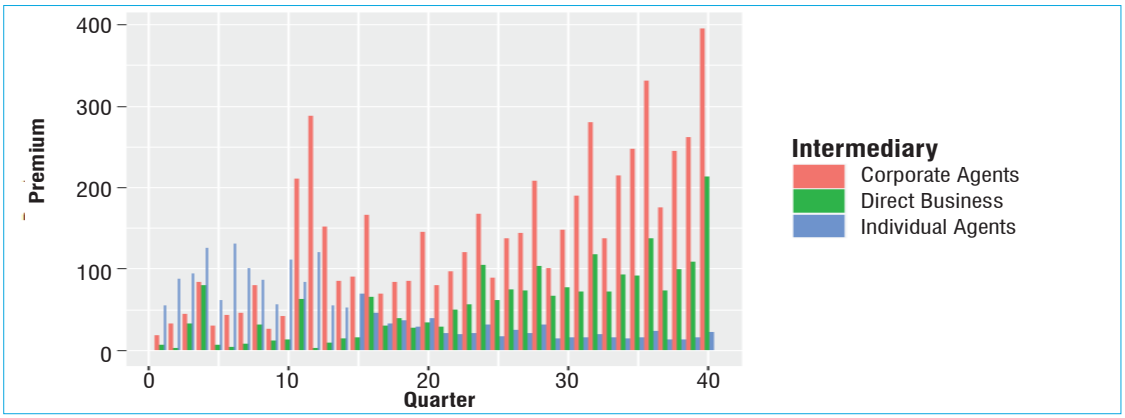


Figure 7: Channel performance w.r.t. premium numbers for PNB MetLife {source:Pant, T (2021}

A look at figures 8 & 9 would reveal that agents have had a substantial presence in a bancassurance dominated landscape at Max Life. Contrastingly, the agents have fared quite well in a direct business dominated landscape at Bajaj Allianz.

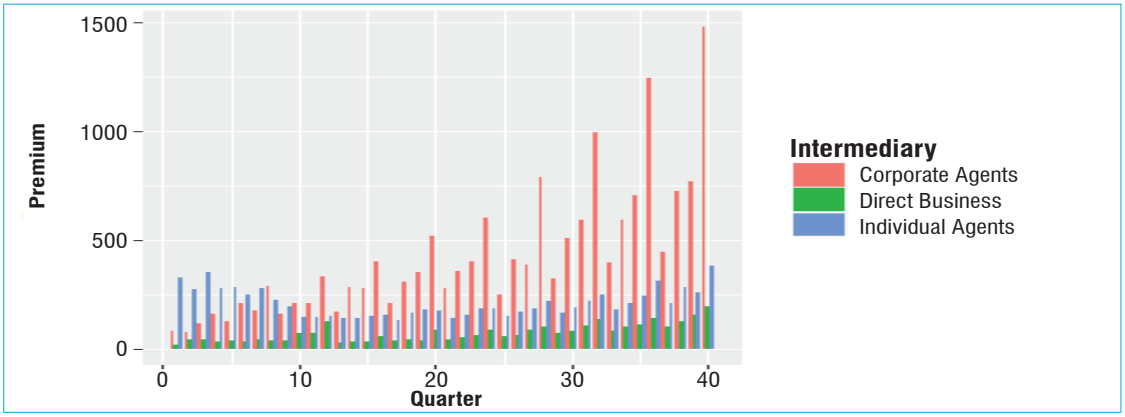


Figure 8: Channel performance w.r.t. premium numbers for Max Life {source: Pant, T (2021}

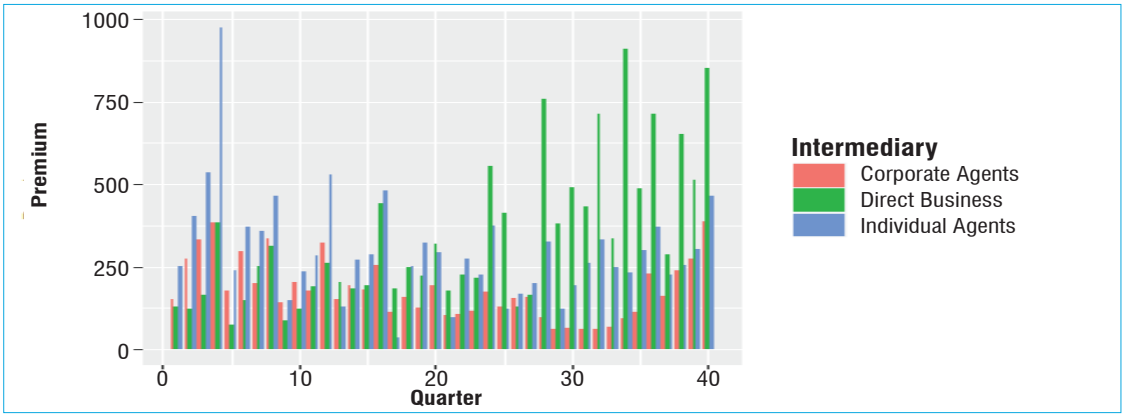


Figure 9: Channel performance w.r.t. premium numbers for Bajaj Allianz {source:Pant, T (2021}

Figure 10 reflects the sterling performance of direct business for LIC (through large group policies), followed by big chunks from the agent business (individual policies). Bancassurance, in an agent-centric LIC model has been relegated to the fringes.

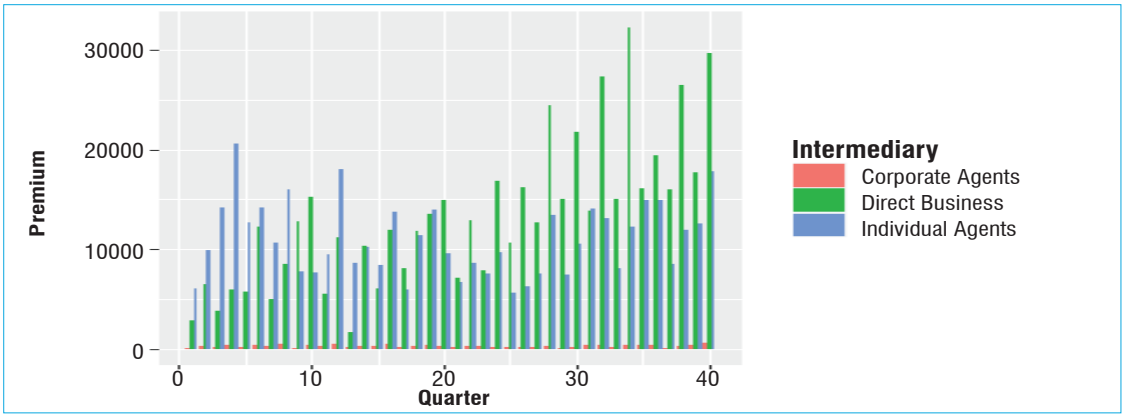


Figure 10: Channel performance w.r.t. premium numbers for LIC {source:Pant, T (2021}

The distribution dilemmas, as reflected by the above-mentioned facts, for both group and individual policies, have an overarching highlight: the bancassurance or the direct channel is the biggest contributor to the overall premium. For individual policies, bancassurance rules the roost for private players (whether bank promoted or not) and agents does so for the LIC. All in all, the distribution numbers are unevenly contributed by either the direct channel (for group policies), or the bancassurance (for individual policies of private players), or the agents (for individual policies of the LIC). In each case, the distribution is highly lopsided. The direct channel (mainly online) is preferred for individual, simpler policies while bancassurance accounts for an inconsistent mix of endowment, and/or linked plans. Agents, too sell an array of products - inconsistently so - comprising of traditional, endowment, and/or linked plans. Therefore, in addition to the lopsidedness in channel-mix, proper product-channel fit is missing in most cases.

Making Traction Ahead – Probable Solutions!

While bank promoted companies have the leverage of a banking entity, proprietary channels (agents and direct business) that are company-owned provide far more value to the company. Hence, it calls for an optimum-mix of both the channels. Non bank promoted companies, specifically Max Life stands out for a relatively more balanced channel-mix (at least for individual policies), not losing sight of the value a strong agency brings. Generally speaking, we, the authors, strongly advocate the enhanced role of agency in case of private players and emergence of bancassurance in case of LIC. With regards to distribution-product fit, the companies could follow the template given in a recent NIIT Technologies Report (2019) {see figure 11}. While online business, is not majorly represented in the template, mainly on account of being touted as a channel currently servicing cheaper, simpler plans, its representation for all product types across all categories is going to rise in coming years. Its stocks are bound to have high stakes at a time when the pandemic has razed through the lives and livelihoods. Also, the insurance aggregators, have a big role to play in a restructured insurance landscape.

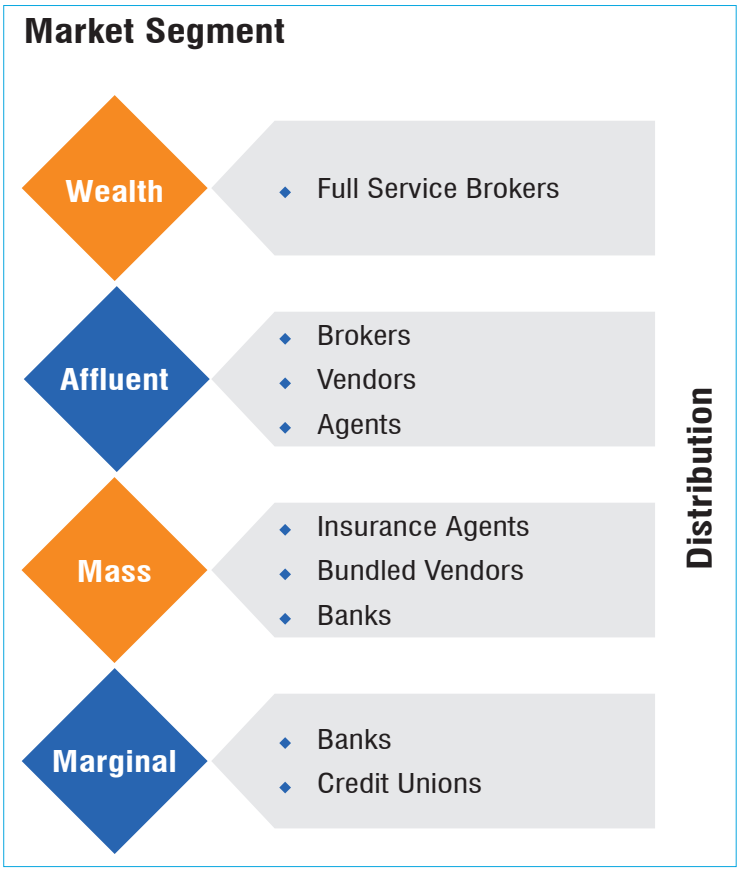


Figure 11: Insurance products by channels (Source: NIIT Technologies Report, 2019)

With the ongoing - on the wane, though - pandemic increasing the scope for life insurance and the product basket enlarged in recognition of an increased and felt need for life cover, the companies are best served by having not only a balanced channel-mix within and across categories of companies as mentioned in figure 3, but also incorporating right products in those categories. This would ensure that the protection gap gets filled on account of enhanced reach and enhanced offerings.

Conclusion

With different categories of companies in the life insurance space sporting quite different channel-mixes both within and across categories, the overarching highlight is that the distribution per se is highly lopsided in favour of either one or two channels. With the distribution dilemmas of firms different from one another, it would surely be beneficial if following recommendations in light of the discussion held (for both individual and group policies) are taken note of:

SBI LIFE:

Hold on to bancassurance strength

- ✓ Continue good work on agency
- ✓ Nurture the direct business

PNB METLIFE:

- ✓ Emphasis on overall increased selling
- ✓ Agency numbers need a fillip
- ✓ Ramp up the direct business

HDFC LIFE:

- ✓ Maintain presence on individual bancassurance numbers
- ✓ Further consolidate the direct business
- ✓ Inject life into a failing agency channel

ICICI PRUDENTIAL:

- ✓ Maintain bancassurance stronghold
- ✓ Go aggressive on agency sales
- ✓ Further scale up the direct business

LIC:

- ✓ Emphasis on increased individual direct business while maintaining numero uno position on group direct business
- ✓ Preserve agency numbers (individual policies)
- ✓ Undertake massive bancassurance strengthening measures

MAX LIFE INSURANCE:

- ✓ Maintain bancassurance supremacy
- ✓ Continue fair agency performance (proprietary channel strength)
- ✓ Ramp up the direct business

BAJAJ ALLIANZ:

- ✓ Further impetus on the already high direct business
- ✓ Agency numbers need further lift
- ✓ Bancassurance numbers need a serious relook with strong emphasis on group policies

While, playing to ones' strength (the case of bank promoted/supported companies – banks going all out to support their insurance firms) is the norm, deriving value through proprietary channel enhancement should not be forgotten. Equally important, is the channel-product fit that'll ensure insurance outreach and deeper penetration. Covering all the above-mentioned bases, ticking all the boxes, and catering to diverse customer segments with an optimum and balanced distribution-mix would surely help bridge the insurance protection gap in India. It's time the companies get into serious action and provide distribution the care and nurture thatitrichly deserves. Similarly, the academia should ensure that the coffers of literature on distribution as an essential link towards bridging the insurance protection gap gets filled as soon as possible. Going forward, this would ensure a robust base of policy makers grounded in thorough knowledge of distribution, creating defining policies for reducing the insurance protection gap. TJ

References

https://www.hdfclife.com/content/dam/hdfclifeinsurancecompany/about-us/pdf/investor-relations/financial-information/annual-reports/Annual-Report-FY-2020-2021.pdf. (n.d.).

https://www.ijeat.org/wp-content/uploads/papers/v8i5S3/E10690785S319.pdf. (n.d.)

https://www.niit-tech.com/resource-library/white-papers/future-readymulti-channel-distribution-life-insurance

Joskow, P. (1973). Cartels, competition and regulation in the property-liability insurance industry. Bell Journal of Economics and Management Science 4 : 375 – 427

MehtaK.(2015). https://www.livemint.com/Money/vkrMCcZklJliU69gl MiNaL/The-need-to-build-deeper-insurance-distribution-landscape.ht ml

Pant, T. (2021). Analysis of channel profitability within and across categories of life insurance companies in India. Ph.D. Jaypee University of Engineering & Technology, Raghogarh, Guna.

Pant,T. &Arya, S. (2019). Distribution problems in private bank led life insurance firms: A contrasting scenario in the Indian context. *International Journal of Engineering and Advanced Technology, 8*(5S3), 317-326.

Innovations as a Game-Changer: Scalability and Sustainability in the Indian Insurance Sector

Saiganesh Venkatesh
vsaiganesh00@gmail.com

Abstract

The insurance industry has embraced technology and digital channels to reach out to and engage with customers. This has included the use of mobile apps, websites, and social media to promote insurance products and provide information and assistance to customers. Data analytics has facilitated better understanding of customer needs and preferences leading to a shift towards more personalized and customized insurance products. Greater emphasis on customer experience has led to development of user-friendly websites and mobile apps, as well as the use of customer service technologies, such as chatbots, to provide quick and convenient assistance to customers. The insurance industry has demonstrated outstanding resilience during and after Covid-19 pandemic. The industry has certain unique characteristics that has resulted in challenges in influencing customers to buy insurance. However, the scenario is fast changing now. The sector has embraced digitalization and the efforts of the industry are fully aligned with the needs of the customers. Thus, insurance industry is one where innovation is contributing to scalability and sustainability. This research effort has identified innovation as the primary driver/ game changer for brightening the prospects of the insurance sector. The supporting role played by the regulator and the innovations that have been introduced across a wider spectrum of business activities have been reviewed in this research.

Keywords

Insurance, Marketing, Innovations, Scalability, Sustainability, Digitalization.

Introduction

There have been a number of marketing innovations in the Indian insurance industry in recent years. One such innovation has been the use of technology and digital marketing to reach and engage with customers. This has included the use of social media, mobile apps, and websites to promote insurance products and services, as well as to provide information and assistance to customers.

Another innovation has been the use of partnerships and collaborations with other businesses to cross-sell insurance products. For example, insurance companies have partnered with banks, airlines, and other companies to offer insurance products to their customers. There has also been an increase in the use of data analytics to better understand customer needs and preferences, and to tailor insurance products and marketing strategies to meet these needs.

Innovation is a collection of cross cutting practices and procedures needed to structure, organize, and support companywide initiative. Today largest tech corporations spend 10-15% of their budgets on R&D to keep pace with the dynamic market needs.

Changes in organizational culture are needed to achieve success in innovation efforts. A culture of openness in which employees are encouraged to take part in problem solving exercises is needed. Employee engagement is crucial here. Employees should be given freedom to share their ideas and knowledge. Employees must be encouraged to come up with novel ideas.

Sharing experiences from innovation experiments in real time will help assimilation of innovation efforts across the organization.

Overall, the use of technology and data analytics has helped insurance companies in India to better understand their customers and to create more targeted and effective marketing campaigns.

What Is Innovation Management?

Innovation management is the process of overseeing and guiding the development of new ideas and products within an organization. It involves identifying and nurturing new ideas, as well as implementing processes and systems to turn those ideas into successful products or services.

Innovation management typically involves several key activities, such as:

Idea generation: Encouraging employees to come up with new ideas and ways to improve products or processes.

Idea selection: Evaluating and selecting the most promising ideas for further development.

Idea implementation: Developing and launching the new product or service.

Continuous improvement: Monitoring the performance of the new product or service and making ongoing improvements to it.

Innovation management requires strong leadership and collaboration, as well as a culture that supports and encourages creativity and risk-taking. It is an important factor in the long-term success of any organization, as it helps to keep the company competitive and relevant in an ever-changing marketplace.

About Indian Insurance Industry

The insurance industry in India is a growing market, with a number of domestic and international companies offering a wide range of insurance products to consumers. The insurance sector in India is regulated by the Insurance Regulatory and Development Authority of India (IRDAI), which is responsible for issuing licenses to insurance companies, regulating insurance premiums, and enforcing compliance with insurance laws and regulations.

There are two main types of insurance in India: life insurance and non-life insurance. Life insurance includes policies that provide financial protection in the event of the policyholder's death, while non-life insurance includes policies that cover risks such as health, travel, motor, and property.

In recent years, the insurance industry in India has undergone significant growth and development, driven by economic growth, increasing awareness of the importance of insurance, and the expansion of distribution channels through the use of technology and digital marketing. The industry is expected to continue to grow in the coming years, with increasing demand for insurance products and services.

2022 was the year in which a number of transformations were made in the non- life insurance sector. The pandemic has accelerated the pace of digitization. Now there is an increased demand for health insurance and cyber insurance. Insurance companies have realized that they have to be relevant to consumers in a digital-first economy.

The Insurance Regulatory and Development Authority India (IRDAI), in its efforts to achieve its mission of "Insurance for all by 2047" has started taking steps to boost the growth in the insurance sector. The IRDAI has predicted that the Indian insurance market will reach $200 billion by 2027.

Evolving Insurance Regulation in India

In 1993, a committee was set up under the chairmanship of R.N. Malhotra, former Governor of the Reserve Bank of India. This committee was entrusted with the task of suggesting recommendations for reforms in the insurance sector. The Malhotra Committee recommended introduction of a concept of "professionalisation" in the insurance sector. The committee stressed on the need to attract foreign capital in Indian insurance.

In its report submitted in 1994, the committee recommended, that:

- Private players should be included in the insurance sector.
- Foreign companies should be allowed to enter the insurance sector, preferably through joint ventures with Indian partners.
- The Insurance Regulatory and Development Authority (IRDA) should be constituted as an autonomous body to regulate and develop the insurance sector.

Following the recommendations of the Malhotra Committee report, in 1999, the Insurance Regulatory and Development Authority (IRDA) was

constituted as an autonomous body to regulate and develop the insurance industry. The IRDA was incorporated as a statutory body in April, 2000.

IRDAI protects the interests of policyholders. It ensures efficient conduct of insurance business in India. It approves product terms and conditions offered by various insurance companies. It regulates the investment of funds by insurance companies so that appropriate solvency margins are maintained. Financial reporting norms of insurance companies are specified. IRDAI also ensures that rural areas are adequately covered by insurance.

There have been several changes to insurance regulation in India in recent years. In 2015, the government increased the Foreign Direct Investment (FDI) limit in the insurance sector from 26% to 49%. The Union Budget 2021-22 announced the proposal to liberalise FDI in Indian insurance companies from the existing 49% to 74% with effect from August 2021.

Hike in FDI cap will improve insurance penetration, solve capital requirements of insurers and improve solvency ratios of insurers. Policyholders can have access to innovative products at competitive prices. Competition in insurance sector will intensify and create more jobs. Increase in FDI will enable insurers to expand their distribution channels to cover a larger geographic area. Exposure to global know-how and best practices in insurance will improve the customer service and the customer experience. Since insurance industry is capital intensive, these developments have augured well for the insurance sector in India.

Micro insurance policies are small, low-cost insurance products that cover specific risks, such as accidental death or disability. In 2007, the IRDAI introduced microinsurance regulations to make insurance more accessible to low-income and underserved segments of the population.

On 13th March 2015, the Insurance Regulatory and Development Authority (IRDA) India introduced the revised Micro insurance Regulation (2015). The new regulation allowed more entities to distribute micro insurance products and emphasized the importance of training micro insurance agents. Micro variable life is a hybrid product category that offers the customer the benefit of systematic contribution with term insurance coverage. The IRDAI had issued micro-Insurance regulations for the protection of low-income people with affordable Insurance products. This would help the vulnerable segments of the population to cope with and recover from common risks with standardised popular Insurance products. These regulations have allowed Non-Governmental Organisations (NGOs), Self Help Groups (SHGs) and other permitted entities to act as agents to Insurance companies to market the micro-Insurance products. Now both life and non-life insurers can promote combi-micro-Insurance products.

In May 2022, IRDAI panel has suggested low-cost micro insurance modules. The aim is to increase the protection plans for small businesses and uninsured population. This modular approach is designed to introduce combi micro insurance products so that the insurer has the flexibility to offer coverage to different groups and individuals as per their specific needs. 14 modules have been recommended by the panel. The maximum sum insured has been specified as below:

Saral Jeevan Bima – Rs 5 lakhs

Bharat Griha Raksha Policy – Rs 5 lakhs

Bharat Sookshma Udyan Suraksha – Rs 10 lakhs

Rs 2000 per day for 30 days in a year towards hospital expenses

The micro insurance products can be combined with various central and state government schemes. This will convince the target groups about the need and relevance of insurance protection.

In 2016, the government introduced the Health Insurance Regulations, which mandated that all health insurance policies must cover certain specified diseases and conditions, including pre-existing conditions. This has helped to increase the availability and affordability of health insurance in India. IRDA has issued guidelines for health insurance in 2020. For example - a health insurance company cannot reject a claim if the policy is renewed without a break for 8 years by the policyholder. Health insurance companies must include telemedicine in the coverage. Delay in claim settlement from the insurer's

end will make the insurance company liable to pay the interest on the claim. The policyholder can also port the health insurance policy to another insurer. In addition, the policyholder can buy multiple policies.

The insurance industry in India has embraced technology and digital channels to reach and engage with customers. This has included the use of mobile apps, websites, and social media to promote insurance products and provide information and assistance to customers.

There is a plan by regulator to introduce Bima Sugam, a one stop online platform that will allow insurers to sell products directly to customers online, lowering costs and altering the distribution process. Bima Vahak is another initiative where a correspondent will distribute a common product Bima Vistaar that will assist in providing insurance to rural areas.

The regulator has decided to ease the product filing and approval process. All products will be brought under Use and File regime. This will pave the path for insurers to introduce new and innovative products in the shortest time possible. This is one of the ways to increase insurance penetration. As per 'use and file', life insurance companies can launch a product immediately without the approval of regulator before launching the product. Later on, IRDAI needs to be informed once the product is sold in the market. According to this scheme, term plan and return of term insurance become easier. This however does not include pension and annuity products.

The Centre has allowed composite insurers – those who can sell both life and non-life insurance policies. Mergers and acquisitions among life and property and casualty insurers can result in distribution synergies, reduction of working capital requirements and cost efficiencies. There is also a proposal to merge the four PSU insurance companies with LIC which can lead to increased penetration of non-life insurance products in the Indian market. HDFC Life has introduced a combination policy called Quick Protect that offers term insurance and health insurance together.

Sandbox Approach by IRDA

The sandbox approach, also known as a regulatory sandbox, is a way for financial regulators to allow companies to test new products or services in a controlled environment, without the need to fully comply with all existing regulations. This can be helpful for companies that are developing innovative products or services that may not fit neatly into existing regulatory frameworks.

In the context of the insurance industry in India, the Insurance Regulatory and Development Authority of India (IRDAI) has established a regulatory sandbox to allow insurance companies to test new products or distribution models in a controlled environment. The sandbox approach allows companies to test new ideas without the risk of incurring significant regulatory penalties if the tests are not successful.

The IRDAI's sandbox approach is intended to encourage innovation in the insurance industry and to help companies bring new products to market more quickly and efficiently. It is also intended to help the regulator better understand the needs and preferences of consumers and to identify any potential risks or issues that may arise with new products or distribution models.

Customer centric products are being introduced. Policies cover pre-existing diseases like diabetes, hypertension and cardiovascular diseases right from day one. Health insurance policies cover maternity benefits. Reimbursement of pharmacy bills and OPD coverage are added benefits that are being offered as part of health insurance cover. Insurtech firms are able to reduce the claim settlement time. Predictive behavioural analytics and digital identity verification can prevent frauds.

What Is Unique About Marketing of Insurance

Marketing insurance can be unique in a number of ways. One key difference between marketing insurance and marketing other types of products is that insurance is often a low-involvement product, meaning that consumers may not be actively seeking out insurance and may not have a strong preference for one insurance company over another. Insurance is a push product – often compared to a long gestation product/service where the returns to the policyholders may not be immediate. This is one business

where innovation is needed at every stage in the value chain. This can make it more challenging to market insurance, as it may be difficult to differentiate one company's products from those of its competitors. Differentiation can be achieved either in the form of a product that is customized to the individual needs of customers or using an innovative channel for distributing the products. Innovation is also possible in the form of different varieties of products – like bite sized insurance, low-cost insurance, pay-as-you-go insurance etc.

To overcome these challenges, insurance marketers often rely on a variety of marketing techniques, such as advertising, public relations, and social media marketing, to reach and engage with consumers. They may also use data analytics to better understand consumer needs and preferences, and to tailor their marketing efforts accordingly. The insurance industry has embraced digitalization at the right time.

Table 1: Bite-Size Products In The Market

Product	Insurer	Premium (₹)	Policy Term	Cover Amount (₹)	Available On
Online Fraud Protection	ICICI Lombard	129	1 month	1.50.000	MobiKwik
		118		1.00.000	
		99		50.000	
Communicable Diseases	Max Bupa	299	1 year	330.000	MoblKwik
		199		2.20.000	
		99		1.10.000	
Home Insurance	Chola MS	279	1 year	4.00.000	MobiKwik
		149		2.00.000	
Dengue Insurance	Max Bupa	149	1 year	330.000	MoblKwik
		99		2.20.000	
		49		1.10.000	
Personal Accident Insurance	Chola MS	100	1 year	5.00.000	MobiKwik
		60		3.00.000	
		20		1.00.000	
Life Insurance	Edelweiss Tokio Life	738	1 year	5.00.000	MoblKwik
		443		3.00.C00	
		148		1.00.000	
Hospital Cash	Max Bupa	400	1 year	2,000 per day	MobiKwik
		225		1.000 per day	
		135		500 per day	
Cancer Protect Insurance	Aditya Birla Health	625	1 Year	7.50.000	MobiKwik
		375		4.50.000	
		125		1.50.000	

Product	Insurer	Premium (₹)	Policy Term	Cover Amount (₹)	Available On
Critical Illness	Aditya Birla Health	2.470	1 Year	5.00.000	
		1490		3.00.000	MobiKwik
		495		1.00.000	
Heart Protect Insurance	Aditya Birla Health	2.495	1 year	5.00.000	MobiKwik
		1.497		3.00.000	
		499		1.00.000	
Dengue Insurance	Apollo Munich	682	1 year	1.00.000	Toffee insurance
International Travel Insurance	HDFCErgo	346	1-180 days	$1.00.000	Toffee insurance
Mosquito Insurance	BalajAllalnz	189	1 year	75.000	Toffee insurance
Cyclist Insurance	HDFC bfgo	225	1 year	2.00.000	Toffee insurance
Backpack Insurance	HDFCErgo	25	6 months	Original Invoice cost of the bag	Toffee insurance

Source: https://outlookmoney.com/magazine/story/cover-for-small-needs-with-a-big-relief-396

Innovations in the Indian Insurance Ecosytem

Innovations are needed in the insurance industry for a number of reasons. Innovations are primarily needed to scale up and sustain the business.

Insurance products and services must evolve to meet the changing needs and preferences of consumers. This may involve the development of new products or the enhancement of existing products to better meet the needs of consumers. The insurance industry has been impacted by technological advances, such as the rise of the internet and mobile devices, which have changed the way that insurance is sold and consumed.

Innovation is needed to take advantage of these technological advances and to develop new products and distribution channels that meet the needs of a digitally-savvy consumer base. The insurance industry is highly competitive, and companies that do not innovate risk being left behind by their competitors. Innovation can help companies to differentiate themselves in the marketplace and to attract new customers.

Innovations in insurance products have been steadily increasing over the years. An unbundled life insurance policy is a protection policy that offers cash to beneficiaries upon a policyholder's death. The unbundled policy contains a savings and investment component.

A term insurance plan is a pure protection plan. In case of the policyholder's untimely demise, a specific sum is given to the family. The term insurance policies can have a tenure anywhere between 10 and 50 years. Term insurance gives higher coverage at the lowest possible premium. There are term insurance policies where in case the policyholder survives the policy term, the premiums are returned.

Changes in insurance regulation can also drive innovation. For example, new regulations may require insurance companies to offer certain types of coverage or to use new technologies. Innovation is often needed to comply with these regulatory changes and to meet the

evolving needs of consumers and regulators.

Innovative "Customer-First strategies" will have an impact on the future prospects of the Indian insurance sector. Some of the innovative strategies by insurance companies are delineated below:

1. Increased use of digital marketing and technology to reach and engage with consumers. This has included the use of websites, mobile apps, social media, and other online channels to promote insurance products and services, as well as to provide information and assistance to customer.
2. Use of data analytics to better understand customer needs and preferences and to tailor their marketing efforts and products to meet these needs.
3. Development of personalized and customized insurance products that are specifically designed to meet the needs of individual customers.
4. Partnerships and collaborations with other businesses to cross-sell insurance products. For example, insurance companies have partnered with airlines, banks, and other companies to offer insurance products to their customers.
5. Use of gamification and interactive experiences to engage and educate consumers about insurance products. This has included the use of online games, quizzes, and other interactive content to make learning about insurance more fun and engaging.

Bima Sugam

Bima Sugam is an online platform that offers simplicity, security and transparency. It can trigger innovation and level the playing field for all the insurance firms. This platform is backed by IRDAI and the insurance industry. Swiss Re conducted a study across five Indian cities and the findings of the study revealed the need for insurance industry to embrace an omni channel strategy instead of merely using an offline channel for distribution. A study by IDC Future scape says that by 2024, 50% of all insurance policies will be sold through an automated personal insurance channel.

Insurers can directly sell their products through the Bima Sugam platform. This Direct to Customer platform can provide an end-to-end digital customer journey right from onboarding of customer to buying of policies to renewals to claim settlements along with agent and policy portability. Bima Sugam eliminates all paper work making it easy for a policyholder to stake an insurance claim. This is a single regulator approved platform and can reduce instances of fraud and mis selling. Customers get the benefit of paying lower premiums as commissions are reduced. A Mc Kinsey report claims that by 2025, 25% of insurance industry will be automated and use artificial intelligence and machine learning. Bima Sugam can help new age startups that currently offer sandboxed products.

Examples of Successful Marketing of Insurance Products in India

There have been a number of successful marketing campaigns for insurance products in India in recent years. Some examples include:

ICICI Lombard's "Take One" campaign: ICICI Lombard, launched a campaign called "Take One" to promote its travel insurance products. The campaign used interactive and immersive experiences, such as virtual reality, to engage and educate consumers about the benefits of travel insurance. HDFC Ergo's "Mummy Ka Insurance" campaign: This was to promote its health insurance products. The campaign used humor and relatable scenarios to educate and engage consumers, and featured popular Bollywood actress Kareena Kapoor as the face of the campaign. Bajaj Allianz's "Kitna Deti Hai?" campaign to promote its car insurance products. The campaign used catchy jingles and humorous scenarios to educate and engage consumers about the benefits of car insurance.

These campaigns were successful in part because they used creative and engaging approaches to educate and engage consumers about insurance products. They also effectively used a mix of traditional and digital marketing channels to reach a wider audience.

Impact of the Covid-19 Pandemic on the Insurance Business in India

The COVID-19 pandemic has had a significant impact on the insurance

business in India. The pandemic has led to an increased demand for health insurance, as consumers have become more aware of the importance of protecting themselves and their families from medical expenses in the event of a health crisis. The pandemic has accelerated the shift to digital channels in the insurance industry, as many consumers have turned to online channels for information and assistance. This has led to an increase in the use of digital marketing and the development of new digital products and services. The pandemic has led to changes in underwriting practices in the insurance industry, as insurers have had to adapt to the changing risks and uncertainties posed by the pandemic. This has included the development of new products, such as pandemic-specific insurance policies, as well as changes to the underwriting of existing products. The pandemic has had a financial impact on the insurance industry, as insurers have had to pay out claims related to COVID-19 and have faced challenges in collecting premiums due to the economic downturn.

How Can Insurance Sector Attract Millenial Customers

Bringing millennial customers into the fold of insurance sector is essential as they comprise a sizeable part of the population. This is an opportunity that no insurer can afford to miss. Millennials and zoomers (Gen Z) are the future and they are responsible for India's demographic dividend. There are several ways in which the insurance industry can attract millennial customers. Millennial consumers are digitally savvy and often prefer to interact with companies online. Insurance companies can use digital channels, such as social media, mobile apps, and websites, to reach and engage with millennial customers.

Millennial consumers value personalized and customized products and services. Insurance companies can use data analytics to better understand the needs and preferences of millennial customers and to tailor their products and marketing efforts accordingly. Many millennials may be unfamiliar with insurance products and may need more information and education about them. Insurance companies can create educational content, such as blog posts, videos, and infographics, to help millennial customers better understand the value of insurance and how to choose the right coverage. Millennial consumers may be price-sensitive and may appreciate transparency when it comes to pricing. Insurance companies can be transparent about their pricing and offer flexible coverage options to meet the needs of millennial customers. These consumers place a high value on good customer service. Insurance companies can use technologies, such as chat bots and AI, to provide quick and convenient assistance to millennial customers, as well as to offer personalized and timely support. It is pertinent to note that catering to the millennial customers has been the driving force for digitalization in insurance.

Insurance can be a complex and confusing topic for many consumers. There may be a need for more educational content to help consumers better understand insurance products and how to choose the right coverage. This could include the use of blog posts, videos, and infographics to explain insurance concepts in a clear and engaging way. Insurance companies could focus on improving the customer experience by providing more convenient and personalized assistance to customers. This could include the use of technologies, such as chatbots and AI, to provide quick and convenient assistance, as well as the use of customer feedback to identify areas for improvement.

Table 2: Future trends in insurance sector

Sr No.	Description of the trend
1	Increase in cross-selling (selling different products to customers), upselling (selling a premium insurance product to customers). Personalized insurance plans with flexible coverage.
2	Increase in Peer-to-Peer (P2P) insurance - a risk sharing network where a group of individuals pool their premiums together to insure against a risk.

Sr No.	Description of the trend
3	Consolidations in the form of mergers and acquisitions
4	Customers expecting a better digital experience
5	InsurTechs are leveraging technologies such as Artificial Intelligence (AI), Machine Learning (ML), Big Data Analytics, and the Internet of Things (IoT) to improve the Risk assessment and insurance processes.
6	Protection of data integrity through a robust framework for data security and privacy; strengthening of IT capabilities of insurance companies.
7	Block chain technology will help in dealing with huge customer data, payment verifications and settlement of claims
8	Insurers will have to focus on Environmental, Social and Governance goals
9	Internet of Things & Telematics – data from internet connected devices can be used to increase operational efficiency, improve decision making and enable seamless process automation. Telematics can be used for driving behaviour analytics, collecting accurate information about claims
10	Use of conversational commerce (chat bots) to market insurance products and automate routine tasks

Conclusion

Innovation is a key factor in the success of the insurance industry, and is needed to keep pace with changing consumer needs, technological advances, and regulatory changes. These innovations have helped insurance companies to better understand and engage with their customers, and to create more targeted and effective marketing campaigns.

These changes have helped to modernize the insurance business model and to make it more responsive to the needs of consumers. They have also helped insurance companies to better understand and engage with their customers, and to create more targeted and effective marketing campaigns. The insurance industry has been growing at a CAGR of 11% (2017-2022). The protection gap is 83%. There is a massive scope to increase penetration levels.

Technology enabled customization and transparency will increase the demand for insurance in Tier 2 and Tier 3 cities. There has to be a fundamental rethinking on how value will be created and delivered. The COVID-19 pandemic has had a significant impact on the insurance industry in India, leading to changes in demand, distribution channels, underwriting practices, and financial performance. Insurance companies can attract millennial customers by using digital channels, offering personalized and customized products, providing educational content, being transparent about pricing, and offering strong customer service.

The regulatory changes in insurance have helped to modernize and improve the insurance industry in India, making it more accessible and responsive to the needs of consumers. The marketing of insurance can be unique in that it involves the promotion of a product that may not be actively sought by consumers, and is often sold through intermediaries rather than directly to consumers. This requires insurance marketers to use a range of marketing techniques and to rely on data and analytics to better understand and engage with their target audience. The marketing mix of insurance could be improved by expanding the use of digital marketing and technology, personalizing and customizing products and marketing efforts, providing educational content, and improving customer service.

It is remarkable that the insurance sector has proven to be one of the most resilient sectors in India. Earlier, only private enterprises were keen in using innovation to further their business prospects. Today, all organizations – public or private have become adept in using innovations – particularly digitalization – to grow the business and increase the profitability. Life Insurance Corporation of India has been at the forefront of innovations across the wider business spectrum – be it products/ processes/ distribution

channels etc. The support from the Indian regulator has been no less. IRDAI has been at the helm encouraging insurance firms to use innovation to further business prospects. To reiterate, insurance industry is one of those sectors where innovation has truly been the game changer as innovation is not limited to introduction of new products alone… TJ

References

Duett, E. H., Baggett, C., Pappanastos, E., & Hamby, W. L. (2017). Attracting millennials to the insurance industry: Will they fill the void. *International Journal of the Academic Business World*, *11*(2), 39-46.

Garg, M. C., & Verma, A. (2010). An Empirical Analysis of Marketing Mix in the Life Insurance Industry in India. *IUP Journal of Management Research*, *9*(2).

Muhammad, G. S. (2019). An Empirical Analysis Of Marketing Mix In The Life Insurance Industry To Purchase Decisions Of Life Insurance Products. *Journal of Business, Management, & Accounting*, *1*(1).

Singh, A., & Bihari, N. (2018). A Decade since the First Microinsurance Regulations in India. *Bimaquest*, *18*(1). Retrieved from http://www.bimaquest.niapune.org.in/index.php/bimaquest/article/view/19

https://www2.deloitte.com/ie/en/pages/covid-19/articles/impact-COVID-19-insurance-industry.html

https://economictimes.indiatimes.com/industry/banking/finance/insure/irdai-regulations-could-fasten-insurance-growth-milliman/articleshow/96030152.cms

https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_Layout.aspx?page=PageNo4224

https://www.forbes.com/sites/forbesagencycouncil/2021/08/19/marketing-strategies-for-insurance-agencies/?sh=3f90d75b7aaa

https://www.mckinsey.com/industries/financial-services/our-insights/five-steps-to-improve-innovation-in-the-insurance-industry

https://beinsure.com/9-most-effective-marketing-strategies-insurance-business/

https://www.iciciprulife.com/insurance-claim/irda-faqs.html

https://economictimes.indiatimes.com/industry/banking/finance/insure/irdai-panel-suggests-micro-insurance-modules-for-low-income-group-small-businesses/articleshow/91232317.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

https://a2ii.org/en/news/a2ii-newsflash-july-2015-india-adopts-a-new-irda-microinsurance-regulation

https://financialservices.gov.in/insurance-divisions/Insurance-Regulatory-&-Development-Authority

https://timesofindia.indiatimes.com/blogs/voices/outlook-for-general-insurance-industry-2023-a-promising-and-transformative-year/

https://bfsi.economictimes.indiatimes.com/blog/innovations-that-transformed-the-insurance-landscape-in-india/90587085

https://economictimes.indiatimes.com/markets/stocks/news/innovation-in-products-key-to-ensuring-cover-for-all-indians-irdai/articleshow/94772724.cms

Role of Credit Insurance in India's Road to Export Drive

Gajendra Pratap Singh
singhgajendrap@gmail.com

Mr. Singh is experienced credit insurance professional with over 13 years of experience in the industry. hold B.Tech in Electronics & Instrumentation and an MBA with a specialization in Financial Management. I am also a Licentiate from the Insurance Institute of India and holds a certification in GST from the Institute of Company Secretaries of India. In my current role as a Manager at ECGC Ltd., I am responsible for claim handling. Has published article on "Insurance and ESG Risks" in III Journal.

This article discusses the importance of international trade and how it influences a country's GDP. It highlights the concept of balance of trade and its impact on a nation's economy. The article also discusses the role of exports in boosting a country's economy, providing employment, and earning foreign exchange. However, the article notes that exports are currently facing challenges, such as the COVID-19 pandemic and trade barriers. The article introduces the concept of export credit insurance as a tool to mitigate risks associated with cross-border sales. Finally, the article suggests that policymakers should liberalize the credit insurance sector to promote sustainable and healthy development of the trade credit insurance business in India.

The Importance of International Trade and Its Impact on a Country's GDP

International trades between countries and across continents have existed for centuries including previous civilizations. The fundamental principle driving international trade is that of comparative advantage. Some countries are blessed with some natural resources whereas others have different resources at their disposal. Countries Exports the excess and Imports all other goods. A country's importing and exporting activity influence its Gross Domestic Products (GDP). In fiscal year 2022, the estimated ratio of India's total exports and imports of goods to the GDP stood at 33%. India's overall Exports in the fiscal Year 2022 (Merchandise and Services combined) in April-November 2022 are estimated to be USD 499.67 Billion. Overall Imports in April-November 2022 are estimated to be USD 610.70 Billion. Oil, Precious Metals, Electrical & Industrial Machineries and organic chemicals are some of the top contributors to Indian Imports, whereas Petroleum Products, Leather and its products, Gems and Jewellary, Pharmaceutical Products etc. are the top contributors to Indian Exports.

The Concept of Balance of Trade and Its Impact on a Nation's Economy

The distinction between the value of a nation's imports and exports for a given time frame is referred to be balance of trade or trade balance. When Imports of a nation exceeds its exports during a given period of time, then, trade deficit occurs. It is also referred as a negative balance of trade. Vice-versa is referred to be as favourable balance of trade or trade exists. The Balance of Trade is the largest constituent of a nation's Balance of Payments and is utilized to compute the associative potency of a nation's economy. The balance of payment is a statement of all the transactions that are made between entities in one nation and the rest of the world over a particular time frame, such as a quarter or a year. The governments formulate rules and regulations that govern the countries trade with other countries in the backdrop of the country's economic policies and financial conditions such as its balance of payments.

The Importance of Exports in Boosting A Country's Economy, Providing Employment, and Earning Foreign Exchange

When a country is importing goods, this represents an outflow of funds from that Country. Strong Imports widens the trade deficit and devalue the currency. The devaluation of a currency can have a huge impact on the everyday life of a country's citizens because the value of a currency is one of the biggest determinants of a nation's economic performance and its gross domestic product (GDP). Conversely, if exports numbers are positive, it adds to the GDP of the nation. Since, GDP counts only local production, exports definitely lead to an increased GDP. Exports lead to domestic production. Domestic production requires domestic labor. Hence, exports lead to an increase in employment in the nation. Exports are the only way to earn foreign exchange. It is for this reason that exports are considered to be vital to the solvency of a nation. A thriving economy can suddenly implode in the absence of dollars. This is because they will not be able to import essential commodities. Hence, exports are considered to be the lifeline of an economy. This brings us to the importance of exports. If the government is spending so many resources and providing so many incentives to exporters, then they must be important for a country. Countries have special banks and insurance agencies promoted by the government to facilitate export growth.

Challenges to Exports

Currently, International Trade is facing unprecedented challenges. Besides, Covid 19 pandemics, below enlisted are the other factors which are impeding global exports.

1. Russia-Ukraine war,
2. Cross border trade barrier stiffness,
3. Protectionism,
4. Weakening global demand on the back of rising interest rates
5. Stubbornly high inflation.

This all will results into disruption in supply chain and consequently leads to non-payment or non-acceptance from the importer.

The Concept of Export Credit Insurance as a Tool to Mitigate Risks Associated With Cross-Border Sales

The main purpose of export credit Insurance was to cover risks involved in cross-border export sales. History of Export Credit Insurance business began with the establishment of Export Credit Guarantee Department in UK after the destructive World War I, to support British exporters. The International trade comprises of different types of risks depending on the length of the export transaction. Short-term risks refer to the risks that arise in transactions that are completed within a year. On the other hand, medium to long term risks refer to risks that arise in transactions that extend beyond a year. Exporters can manage these risks by purchasing credit insurance covers. The risks for both short term and medium to long terms that are covered with export credit insurance can be classified as commercial risks and political risks.

i. Commercial risks are
   a) Insolvency of the buyer.
   b) Failure of the buyer to make the payment.
   c) Buyer's failure to accept the good

ii. Political risks are
   a) Sovereign default by the Government of the buyer's country.
   b) Economic and political decisions by governments of the buyer's country or any Government action, which may block or delay the transfer of payment made by the buyer.
   c) War, civil war, revolution or civil disturbances in the buyer's country.
   d) Interruption or diversion of voyage resulting in payment of additional freight or insurance charges which cannot be recovered from the buyer.

Credit Insurance covers are not only the tool to manage these risks by assuring their exporters, but also help in creating safe trade environment. Another benefit of export credit insurance is that it also encourages exporters to penetrate into new markets, particularly in risky regions, by covering the aforesaid risks.

Liberalizing Credit Insurance Sector

Today, countries which are export oriented in terms of their developing policies support their exporters through their export credit agencies (ECAs). ECAs not only provide the export credit insurance to the exporters but also complement the market by filling the gap occurred when commercial financial institutions are unwilling to support export transactions.

Government of India has set up India's ECA "ECGC Ltd" in 1957, under the administrative control of Ministry of Commerce, with the vision to improve the competitiveness of the Indian exports by providing credit risk insurance and related services to exporters and banks. ECGC Ltd also administers the National Export Insurance Account (NEIA) Trust which caters to project exports of strategic and national importance.

Over the years, ECGC has provided:

1. A range of insurance covers to Indian exporters against the risk of non-realization of export proceeds due to commercial or political risks.
2. Different types of credit insurance covers to banks and other financial institutions to enable them to extend credit facilities to exporters.
3. Export Factoring facility for MSME sector which is a package of financial products consisting of working capital financing, credit risk protection, maintenance of sales ledger and collection of export receivables from the buyer located in overseas country.

ECGC has kept its premium rates at the optimal level. ECGC Ltd is the pioneer in the trade credit insurance with covering exports amounting to Rs.6.18 lakh Cr in the last FY 2021-22. Overall, the Company supported around 20% of India's merchandise exports during FY 2021-22.

The size of the credit insurance market in India is still small when compared to its global peers. In fact, India's ratio of trade covered by credit insurance to GDP is around 5% as against 10% in China and over 20% in some of major European economies. To strengthen and stimulate the India's exports, policyholders have to liberalize the credit insurance sector. In this process, the Insurance Regulator (IRDAI) on 8 September comes out with revised guidelines on trade Credit Insurance, which comes into effect from 1 November 2021. These guidelines will apply to all insurers transacting general insurance business including the all private and public insurers, registered under the Insurance Act, 1938. However, ECGC Ltd, Country's ECA, is exempted from the application of these guidelines. The revised guidelines caters the need to promote the sustainable and healthy development of the trade credit insurance business in India, This step will helps in improving the economic stability by labeling the trade losses because of credit risks.

In conclusion, international trade plays a significant role in a country's economy, and exports are an essential component of economic growth. However, exports are facing unprecedented challenges, such as the COVID-19 pandemic and trade barriers. Export credit insurance is a tool that can mitigate risks associated with cross-border sales and encourage exporters to penetrate new markets. Export credit insurance also builds trust between exporters and Importers, helps exporters to increase their market share, ease debt follow-up. It is imperative to have flexible credit insurance regime in India, wherein trade deficit has been perennially running for more than a decades. TJ

Reference

1. www.pib.gov.in
2. www.livemint.com
3. www.ecgc.in
4. https://commerce.gov.in

Revolutionizing the Insurance Landscape: Exploring the Multi-faceted Applications of Artificial Intelligence in the Insurance Industry

Gaurav Sahni
gaurav_sahni_1983@hotmail.com

Gaurav Sahni is a competent professional with over 15 years of work experience in Health Insurance Product Development, Underwriting and Operations. Presently he is working as a Project Lead in KG Information Systems Private Limited, Coimbatore and is responsible for Implementation and Support of Products in the Health and Life Insurance Domains.

Abstract

The recent Covid-19 pandemic has significantly impacted industries across various sectors, including insurance. Amidst the challenges, it has underscored the importance of technology, specifically Artificial Intelligence (AI) and Cloud Computing, in transforming the insurance landscape. The market for AI in the insurance sector which was valued at $3.1 billion in 2021 is anticipated to reach $40.1 billion by 2030, growing at a CAGR of 32.6% during the forecast period of 2020-2030.

While rapid advancements in technology have reshaped numerous industries, such as manufacturing and retail, insurance is one where it is being explored to a major extent, primarily because of the math-driven nature of the sector. The potential of AI, machine learning, and blockchain to revolutionize business operations, workforce dynamics, and everyday life is becoming increasingly evident.

The insurance sector has already started harnessing these emerging technologies to improve and optimize various aspects of their operations. A growing number of insurance companies are leveraging AI and machine learning to automate critical steps in the claims processing workflow and enhance customer service. Blockchain technology is being utilized to secure transactions, detect insurance fraud, mitigate risks, and potentially reduce policy costs.

A recent survey by Accenture indicated that 21% of insurance companies are investing in training their workforce for interactive, collaborative, and comprehensible AI-based solutions. Decision-makers in the industry are expected to prioritize AI adoption to maintain a competitive edge. The growing demand for personalized insurance services necessitates the automation of operational tasks. AI facilitates this by automating human-driven processes, resulting in faster completion times and minimizing errors due to human fatigue or oversight. Thus, there has been a profound impact of AI on the insurance sector, and there is tremendous potential to drive efficiency, innovation, and growth in the coming years through application of AI.

Introduction

The insurance industry has long relied on data as the foundation of its operational processes. The Information Age witnessed a rapid expansion of data collection in the contemporary insurance sector, necessitating the adoption of more sophisticated technology capable of accelerating processes with enhanced efficiency. This evolution has led to the incorporation of Artificial Intelligence (AI) in various aspects of the insurance industry, including customer service, risk management, claims processing, fraud detection, and more.

Although the digital revolution has significantly impacted the insurance

sector, its effects have not been as pronounced as in other industries, such as banking, finance, or software development. A major contributing factor is the presence of stringent regulatory frameworks, which have made it challenging for insurers to fully harness the potential of AI. Nevertheless, the industry acknowledges AI as a game-changer in terms of faster data processing, intelligent operations, and improved customer experiences. Consequently, the insurance landscape is expected to undergo substantial transformation driven by AI in the near future.

As the complexity of client data continues to increase, along with the need to identify and analyze unstructured data or free text, industry players have recognized that manual processes are no longer sustainable. This realization has prompted the widespread adoption of AI-based process automation across the insurance sector, paving the way for a more efficient, innovative, and customer-centric future.

Areas of Application of Artificial Intelligence in Insurance

The application of Artificial Intelligence in the insurance sector has grown significantly in recent years, leading to numerous areas of exploration and innovation. Some of the key application areas include:

1. Risk Assessment and Underwriting

Artificial Intelligence (AI) is playing a pivotal role in guiding insurers in the areas of risk assessment and underwriting. By leveraging advanced algorithms and machine learning techniques, insurers can harness the power of AI to analyze vast amounts of data, identify patterns, and assess risks more accurately. This allows them to determine the appropriate pricing for policies and improve their overall risk management strategies. The following are various use-cases that are being explored in this regard:

- **Data Analysis and Pattern Recognition**

  AI-powered algorithms can process and analyze large and diverse datasets, including structured and unstructured data, from various sources such as policyholder information, historical claims, social media, and IoT devices. By identifying patterns and correlations in this data, AI can provide valuable insights into risk factors and potential losses, enabling underwriters to make more informed decisions when assessing and pricing risks.

- **Predictive Modeling**

  Machine Learning (ML) techniques enable the development of predictive models that can forecast potential losses and claims based on historical data and various risk factors. These models can help underwriters assess the probability of a claim occurring and estimate the potential cost of a claim, allowing them to price policies more accurately and ensure adequate risk coverage.

- **Automated Underwriting**

  AI-driven automation can streamline the underwriting process by analyzing policy applications, assessing risk factors, and determining policy pricing and coverage without human intervention. This not only reduces the time and effort required for underwriting but also minimizes the risk of human error and bias, resulting in more consistent and accurate risk assessments.

- **Enhanced Risk Segmentation for Product Personalization**

  AI can help insurers segment their customer base more effectively by grouping policyholders with similar risk profiles and behaviors, as well as by analyzing a wide range of structured and unstructured data from various sources, such as policyholder information, claims history, social media, and IoT devices. Through identifying patterns, correlations, and insights in this data, insurers can gain a deeper understanding of their customers' needs, preferences, and risk profiles. This enables insurers to develop targeted insurance products, pricing strategies, and customized offerings for different segments, optimizing their risk exposure and profitability.

2. Claims Processing and Management

Artificial Intelligence (AI) is significantly transforming claims processing and management in the insurance industry, streamlining operations and improving efficiency,

accuracy, and customer satisfaction. By leveraging advanced AI algorithms, machine learning techniques, and automation, insurers can optimize the entire claims lifecycle, from first notice of loss (FNOL) to settlement. As various case studies have pointed out, there is a potential to reduce claims regulation costs by 20-30%, claims processing costs by 50-65%, and processing time by 50-90%.

Here's a detailed look at how AI is being used in claims processing and management:

- **Automated FNOL and Triage**

  ML-powered chatbots and virtual assistants can facilitate the FNOL process by gathering relevant information from policyholders, such as the details of the incident, supporting documentation, and personal information. These AI-driven tools can then triage claims, automatically categorizing them based on their complexity and directing them to the appropriate claims handlers or automated processing workflows.

- **Damage Assessment and Repair Estimation**

  Image recognition and computer vision technologies can analyze photos or videos of damaged property, vehicles, or personal belongings to assess the extent of damage and estimate repair costs. This enables insurers to expedite the claims assessment process and provide accurate repair estimates, improving customer satisfaction and trust.

- **Claims Settlement and Disbursement**

  AI-driven automation can streamline the claims settlement process by calculating compensation amounts, verifying policy coverage, and ensuring compliance with regulatory requirements. By automating these tasks, insurers can reduce the time it takes to settle claims, leading to faster disbursements and improved customer experience.

- **Predictive Analytics for Claims Management**

  AI can analyze historical claims data to identify trends, patterns, and potential bottlenecks in the claims process. This enables insurers to optimize their claims management workflows, allocate resources more effectively, and predict future claims volumes, improving overall operational efficiency.

3. Fraud Detection and Prevention

Artificial Intelligence (AI) can play a significant role in enhancing fraud detection and prevention in the insurance industry. By utilizing advanced ML algorithms, data analytics, and AI-driven tools, insurers can identify suspicious activities, patterns, and inconsistencies in claims data, helping them to detect and prevent fraudulent claims more effectively. One of the players who has successfully deployed AI in insurance is Shift Technology which has so far processed over 2.6 billion claims for fraud detection.

Here's a detailed look at how AI is being used for fraud detection and prevention:

- **Anomaly Detection**

  ML algorithms can analyze vast amounts of historical claims data to identify patterns and establish what constitutes normal behavior. AI systems can then flag any deviations or anomalies from these established patterns as potentially fraudulent activities, alerting insurers to investigate further.

- **Predictive Analytics**

  Predictive AI models can forecast the likelihood of fraud based on various factors, such as policyholder information, claim history, and behavioral patterns. By analyzing these factors, insurers can identify high-risk claims or policyholders, enabling them to implement targeted fraud prevention measures and allocate resources more effectively.

- **Social Network Analysis**

  AI tools can analyze social media and other publicly available data to identify connections or relationships between individuals involved in a claim. By uncovering hidden links or associations, insurers can detect potential fraud rings, organized crime networks, or cases of collusion between policyholders and service providers.

- **Geospatial Analysis**

  Geospatial analysis can be used to verify the location and timing of events related to a claim, such

as the site of an accident or the proximity of a policyholder to a healthcare provider. By cross-referencing this information with other data sources, insurers can identify potential inconsistencies or irregularities that may suggest fraud.

- **Computer Vision and Image Analysis**

  Computer Vision technologies can analyze images or videos submitted as part of a claim to detect signs of tampering, manipulation, or staged accidents. By automating the analysis of visual evidence, insurers can quickly identify potentially fraudulent claims and reduce the risk of paying out on false or exaggerated claims.

- **Automated Fraud Alerts and Decision Support**

  AI-driven tools can integrate with insurers' claims management systems to provide real-time fraud alerts and decision support, enabling claims handlers to make more informed decisions about whether to accept, deny, or investigate a claim further. This reduces the reliance on manual processes and human judgment, minimizing the risk of undetected fraud.

4. Customer Service and Support

By leveraging AI-driven tools and technologies, insurers can enhance customer experience, deliver personalized assistance, and streamline communication throughout the customer journey. Here's a detailed look at how AI is being used for customer service and support in the insurance industry:

- **Chatbots and Virtual Assistants**

  ML-based chatbots and virtual assistants can handle a wide range of customer queries and interactions, such as answering questions about policy coverage, assisting with claims filing, providing quotes, and offering personalized product recommendations. By automating routine tasks and providing instant responses, insurers can improve customer satisfaction and free up human agents to handle more complex issues. As per a report by Juniper Research, such chatbots would end up delivering savings amounting to $1.3 billion in 2023 in claims processing costs, up from $300 million in 2019.

- **Sentiment Analysis**

  Sentiment analysis can be used to monitor customer feedback and reviews, helping insurers identify trends, address concerns, and improve overall customer satisfaction. By understanding the emotions and opinions of their customers, insurers can make data-driven decisions to enhance their products and services.

- **Omnichannel Customer Support**

  AI tools can be integrated with multiple communication channels, such as email, social media, messaging apps, and phone calls, providing seamless and consistent customer support across all platforms. This ensures that customers receive timely assistance, regardless of their preferred method of communication.

- **Self-Service Tools**

  Self-service tools powered by AI, such as online policy management portals, can enable customers to manage their policies, make changes, and access information without the need for direct interaction with a customer service representative. This empowers customers to handle their insurance needs at their convenience, enhancing the overall customer experience.

- **Interactive Voice Response (IVR) Systems**

  IVR systems powered by AI can understand and respond to customer inquiries through voice recognition, enabling more efficient call routing and reducing wait times. By providing a more intuitive and streamlined phone support experience, insurers can improve customer satisfaction and retention.

5. Developing Personalized Insurance Products

While we have seen how better risk segmentation can help in structuring insurance products, there are some more ways in which AI/ML can help in insurance product personalization. Here's a detailed look at how AI is being used for personalizing insurance products:

- **Real-time Risk Monitoring and Pricing Adjustments**

  By continuously monitoring and analyzing data from IoT devices

(e.g., wearables, connected cars, smart homes), AI can provide real-time insights into policyholders' behavior and risk factors. This enables insurers to dynamically adjust pricing and coverage based on the actual risk level of the insured, resulting in more accurate and personalized insurance products.

- **Behavioral-Based Insurance Products**

  AI-driven tools can analyze policyholders' behavior and lifestyle choices, such as exercise habits, driving patterns, or energy consumption, to create insurance products that reward positive behaviors and promote risk reduction. Examples include usage-based auto insurance, where premiums are based on actual driving behavior, and health insurance products that offer discounts for maintaining a healthy lifestyle.

6. Marketing and Sales

By leveraging advanced algorithms, machine learning techniques, and data-driven insights, insurers can develop targeted marketing strategies, improve customer acquisition, and increase sales conversions. The details are as follows:

- **Data-Driven Marketing Strategies**

  AI algorithms can analyze vast amounts of data from various sources, such as customer demographics, preferences, behavior patterns, and market trends. By identifying patterns and correlations in this data, insurers can develop more effective marketing strategies, targeting specific customer segments, channels, and messages that are most likely to resonate with their audience.

- **Personalized Marketing Campaigns**

  AI-driven marketing automation tools can help insurers tailor their marketing messages, offers, and promotions to individual customers, based on their unique needs, preferences, and behavior. By delivering more relevant and personalized marketing content, insurers can improve customer engagement, increase conversion rates, and drive policy uptake.

- **Lead Scoring and Prioritization**

  Machine Learning techniques can be used to analyze and score leads based on their likelihood to convert, allowing insurers to prioritize their sales efforts and focus on high-value prospects. By targeting the right customers at the right time, insurers can optimize their sales resources and improve overall conversion rates.

- **Natural Language Processing (NLP) for Sentiment Analysis**

  NLP can be used to analyze customer feedback, reviews, and social media conversations, helping insurers identify customer sentiment, understand their concerns, and adjust their marketing strategies accordingly. By monitoring and responding to customer sentiment, insurers can enhance their brand image, reputation, and customer satisfaction.

- **Predictive Analytics for Cross-Selling and Upselling**

  Predictive models based on AI can analyze customer data to identify potential opportunities for cross-selling and upselling, enabling insurers to target their marketing and sales efforts more effectively. By understanding customer needs and recommending relevant insurance products or additional coverage, insurers can increase policy uptake and drive revenue growth.

- **AI-Assisted Sales Enablement**

  AI-powered tools can provide real-time insights and recommendations to sales representatives, helping them to tailor their sales pitches, overcome objections, and close deals more effectively. By equipping sales teams with AI-driven insights and decision support, insurers can optimize their sales process and drive better results.

7. Predictive Analytics

AI is playing a pivotal role in the adoption and application of predictive analytics within the insurance industry in the following different ways:

- **Customer Retention and Churn Prediction**

  Predictive analytics can be used to identify factors that contribute to customer attrition, allowing insurers to develop targeted retention strategies and enhance

customer satisfaction. By understanding the drivers of customer churn, insurers can take proactive measures to address concerns and improve loyalty, ultimately reducing attrition rates and preserving their customer base.

- **Catastrophe Modeling and Risk Mitigation**

  Insurers can model and assess the potential impact of natural disasters and other catastrophic events on their portfolio by leveraging predictive analytics. By understanding the likelihood and severity of these events, insurers can develop more accurate pricing models, optimize their risk exposure, and design targeted risk mitigation strategies, such as promoting disaster-resistant building practices or providing incentives for risk-reducing behaviors.

- **Market Trends and Competitive Analysis**

  AI-powered predictive analytics can enable insurers to analyze market trends, customer preferences, and competitor activities, helping them stay ahead of the curve and make data-driven decisions. By anticipating changes in the market landscape and adjusting their strategies accordingly, insurers can maintain a competitive edge and drive business growth.

8. Regulatory Compliance and Reporting

The use of Artificial Intelligence is proving to be a powerful enabler in enhancing regulatory compliance and reporting within the insurance industry. By leveraging advanced algorithms, machine learning techniques, and data-driven insights, insurers can more effectively navigate complex regulatory requirements, reduce compliance risks, and streamline their reporting processes. The following is a detailed look at how AI is being used for regulatory compliance and reporting in the insurance industry:

- **Automating Compliance Monitoring**

  AI-driven tools can automatically monitor a wide range of data sources, including internal documents, emails, social media, and external databases, to ensure compliance with various regulatory requirements. By identifying potential violations or discrepancies in real-time, insurers can proactively address compliance issues, reducing the risk of regulatory penalties and reputational damage.

- **Natural Language Processing (NLP) for Regulatory Text Analysis**

  NLP techniques can be used to analyze and interpret complex regulatory texts, helping insurers understand and implement relevant rules and guidelines. By automating the process of regulatory text analysis, insurers can more efficiently stay up-to-date with evolving regulations and adapt their operations accordingly.

- **Streamlining Reporting Processes**

  AI-powered tools can automate various aspects of the regulatory reporting process, such as data collection, validation, analysis, and formatting. By reducing manual intervention and improving data accuracy, insurers can streamline their reporting processes, ensuring timely and accurate submission of regulatory reports.

- **Regulatory Change Management**

  AI-driven solutions can help insurers track and manage regulatory changes, ensuring that their operations remain compliant with evolving rules and guidelines. By automating the process of regulatory change management, insurers can more effectively adapt to changes in the regulatory landscape and minimize the risk of non-compliance.

- **Anti-Money Laundering (AML) and Know Your Customer (KYC) Compliance**

  AI/ML algorithms can analyze customer data, transaction patterns, and other relevant information to identify potential AML and KYC risks, helping insurers comply with these critical regulatory requirements. By automating AML and KYC compliance processes, insurers can reduce the risk of financial crime, protect their customers, and maintain regulatory compliance.

- **Training and Compliance Education**

  AI tools can provide personalized training and education to employees, ensuring that they are knowledgeable about relevant regulations and compliance requirements. By tailoring training content to individual needs and preferences, insurers can improve employee understanding of compliance obligations and foster a culture of regulatory compliance within their organization.

9. Document Processing and Analysis

AI is transforming document processing and analysis within the insurance industry, streamlining workflows and enhancing efficiency. Using AI, insurers can automate various aspects of document handling, reduce manual intervention, and improve accuracy as follows:

- **Optical Character Recognition (OCR) and Intelligent Data Capture**

  OCR technology can be used to convert scanned documents, images, and handwritten text into digital formats that can be easily analyzed and processed. By automating data capture and reducing manual data entry, insurers can improve accuracy, save time, and minimize the risk of errors.

- **Document Classification and Sorting**

  ML algorithms can automatically classify and sort documents based on their content, type, and relevance, helping insurers organize and manage large volumes of paperwork more effectively. By automating document classification and sorting, insurers can streamline their workflows and improve overall efficiency.

- **Natural Language Processing (NLP) for Text Analysis**

  NLP techniques can be used to extract relevant information from unstructured text within documents, such as policy details, claims descriptions, or customer correspondence. By automating the process of text analysis, insurers can more effectively manage and analyze their document content, enhancing decision-making and reducing manual effort.

- **Automated Data Validation and Error Detection**

  AI-based tools can automatically check and validate the data captured from documents, flagging any discrepancies or potential errors for further investigation. By automating data validation and error detection, insurers can improve the accuracy of their document processing and reduce the risk of costly mistakes.

- **Automated Document Generation**

  AI solutions can generate customized documents, such as policy documents, claims reports, or customer correspondence, based on predefined templates and dynamic data inputs. By automating document generation, insurers can save time, ensure consistency, and provide a more personalized experience for their customers.

- **Contract Analysis and Review**

  Use of AI-powered contract analysis tools can help in automatically reviewing insurance contracts and policy documents, identifying key clauses, terms, and conditions that may impact risk exposure or compliance. By automating contract analysis, insurers can more effectively manage their contractual obligations, minimize potential liabilities, and maintain regulatory compliance.

- **Intelligent Document Search and Retrieval**

  AI-driven search and retrieval tools can enable insurers to quickly locate relevant documents and information, based on natural language queries or specific search criteria. By automating document search and retrieval, insurers can improve their response times, enhance customer service, and streamline internal processes.

10. Internet of Things (IoT) Integration

Some ways in which a combination of AI and IoT can help in insurance have already been covered earlier. Here, we look at some other aspects where the combination can yield

fruitful results for players in the insurance industry:

- **Usage-Based Insurance (UBI) and Telematics**

  AI/ML algorithms can analyze real-time data from connected vehicles and telematics devices to create personalized insurance policies based on actual driving behavior. By offering usage-based insurance (UBI) products, insurers can encourage safe driving habits, reduce accidents, and optimize their risk exposure.

- **Smart Home Insurance**

  AI-powered analytics can process data from IoT-enabled smart home devices, such as security systems, smoke detectors, and leak sensors, to assess and mitigate potential risks. By offering tailored insurance products and incentives for smart home adoption, insurers can reduce claims frequency, enhance customer satisfaction, and improve risk management.

- **Predictive Maintenance and Risk Mitigation**

  Algorithms can be used to analyze real-time data from IoT sensors to predict equipment failures, infrastructure issues, or other potential hazards, enabling insurers to proactively address risks and prevent costly claims. By integrating IoT data into their risk assessment processes, insurers can improve their risk management strategies and reduce claim payouts.

The Future of AI in Insurance

The future of AI in the insurance industry holds significant promise as the technology continues to evolve and integrate with other cutting-edge innovations. By using AI, there is a potential value of $1.1 trillion to be unlocked for players in the insurance industry. With advancements in areas such as natural language understanding, conversational AI, and deep learning, we can expect a deeper level of automation for complex tasks, leading to more accurate risk assessments, improved customer interactions, and streamlined decision-making processes.

The growing adoption of 5G technology will facilitate faster data transmission and seamless integration of IoT devices, allowing insurers to monitor and respond to real-time risk factors. This will enable dynamic pricing models and instant policy adjustments, creating a more responsive and personalized insurance experience for customers.

Collaboration between insurance companies and InsurTech startups is anticipated to increase, fostering the development of novel AI-driven tools and services that address the ever-changing demands of the market. These partnerships will lead to the creation of new business models, leveraging AI to deliver customized solutions, optimize operations, and uncover previously untapped opportunities.

The convergence of AI with other emerging technologies, such as blockchain and augmented reality, will open up new possibilities for innovative insurance products and customer experiences. Blockchain integration can enhance transparency, security, and efficiency in claims processing and policy management, while augmented reality can revolutionize the way customers interact with their insurance providers, offering immersive experiences for policy selection, risk assessment, and claims submission.

Moreover, the growing emphasis on ethical AI and explainable AI in the industry will ensure that AI-driven decisions are more transparent, fair, and accountable. This will build trust among customers and regulators, promoting the responsible adoption of AI in the insurance sector.

As data privacy regulations become more stringent, AI-powered privacy-preserving techniques, such as federated learning and differential privacy, will play an essential role in enabling insurers to utilize sensitive customer data without compromising privacy.

AI will also facilitate the development of innovative insurance products for emerging risks, such as climate change, cyber threats, and global health crises. By harnessing the power of AI-driven predictive analytics, insurers can more effectively anticipate and manage these complex and rapidly evolving risks, ensuring their long-term sustainability and resilience.

Thus, AI in insurance promises a transformative shift in the industry landscape, unlocking new opportunities for growth,

differentiation, and value creation for both insurers and their customers. As AI continues to evolve and integrate with other cutting-edge technologies, it will reshape the way insurance providers operate, interact with customers, and manage risk, ultimately delivering a more efficient, personalized, and innovative insurance experience.

Conclusion

The integration of Artificial Intelligence in the insurance industry is poised to revolutionize the way insurers operate, interact with customers, and manage risks. The myriad applications of AI, including risk assessment and underwriting, claims processing and management, fraud detection and prevention, customer service and support, personalized insurance products, marketing and sales, predictive analytics, regulatory compliance and reporting, document processing and analysis, and IoT integration, demonstrate the transformative potential of this technology.

As the insurance sector embraces AI, we can expect to see greater efficiency, personalization, and innovation, along with the development of new business models and services. The future of AI in insurance will be shaped by the responsible adoption of the technology, with a focus on ethical AI, explainable AI, and data privacy. Moreover, collaboration between insurance companies and InsurTech startups, as well as the convergence of AI with other emerging technologies such as blockchain and augmented reality, will further contribute to the growth and evolution of the industry.

Ultimately, the successful implementation of AI in the insurance industry will depend on the ability of insurers to adapt to these technological advancements, invest in AI-driven solutions, and foster a culture of innovation and collaboration. By harnessing the power of AI, insurance providers can unlock new opportunities for growth, differentiation, and value creation, ensuring their long-term sustainability and resilience in an increasingly competitive and dynamic market landscape. TJ

REFERENCE

1. https://www.marketresearchfuture.com/reports/ai-in-insurance-market-8465
2. https://www.accenture.com/_acnmedia/PDF-120/Accenture-Technology-Vision-for-Insurance-2020-Summary.pdf
3. https://www.mckinsey.com/~/media/mckinsey/industries/financial services/our insights/what drives insurance operating costs/successfully_reducing_operating_costs.ashx
4. https://www.shift-technology.com/
5. https://www.juniperresearch.com/press/bank-cost-savings-via-chatbots-reach-7-3bn-2023
6. https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-executives-ai-playbook?page=industries/insurance/

Litigation Management – A Focus Area in Addressing Claims Leakage of Insurers

Kanya Saraswathy C
kanyasaras@gmail.com

Kanya Saraswathy C heads the commercial and reinsurance group in the Insurance Advisory Group at TCS Banking, Financial Services, and Insurance (BFSI) business unit. She has 38 years of experience across insurance and IT services, including leadership roles with a top property and casualty insurer in India. She has been involved in consulting programs for global P&C insurers, knowledge development, designing insurance offerings and creating solution frameworks, and presales. Kanya holds a bachelor's degree in commerce from the University of Madras, Chennai, and a Master's Degree in Business Administration from the Loyola Institute of Business Administration, Chennai, India.

Abstract

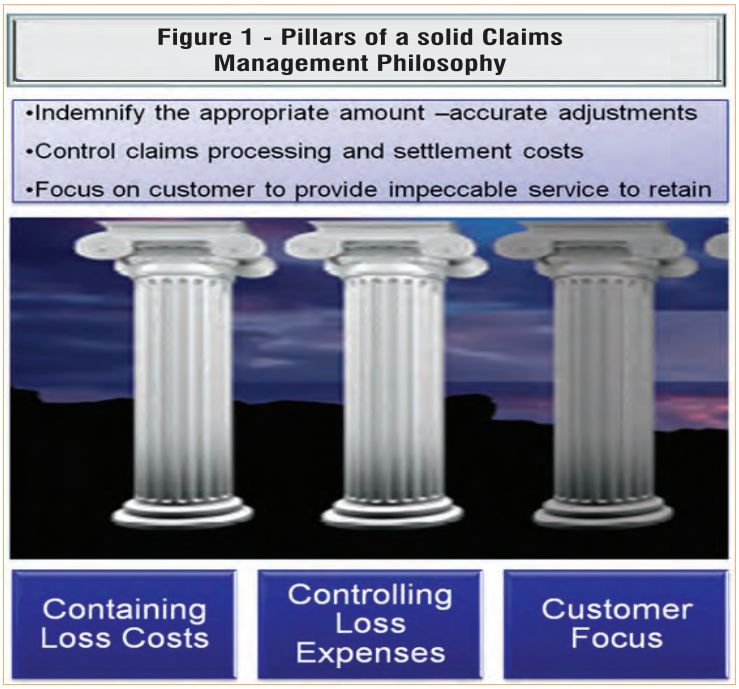
Insurers worldwide are operating in a challenging environment, with issues ranging from plummeting demand from retail customers to deep concerns over the dwindling investment incomes with the vagaries of stock markets. Huge claims outflows have posed challenges to the profitable operations of many large insurers. Turning to technology to provide advanced solutions to manage the claims has been the preferred route of many insurers to provide quick and efficient service on one hand and handle claims more efficiently on the other.

However, the key focus of any technology or tool introduced in recent times has been to address the problem of claims leakage. The contractual obligation of an insurer and the ethical consideration demand that the insured or claimant be compensated with the right amount. Tools like Analytics, aid in the process to discover how much should be paid. To complement these are decision support tools, which help to direct or automate the decision to make payments more accurate.

In this paper, a detailed analysis of what constitutes claims leakage and some of the challenges insurers face in addressing the issue is discussed. More attention is directed on handling Litigation Management since litigation costs constitute a large portion of the claims costs.

Laying the Foundation with a Claims Management Philosophy

Figure 1 - Pillars of a solid Claims Management Philosophy



Keywords

Insurance, Insurance Litigation, Litigation Management Technology, Insurance Claims, Claims Leakage.

Before discussing claims leakage, it is important to realize that an insurer has to balance the key driving forces such as containing loss costs, controlling loss expenses and customer focus as depicted in Figure 1. These can be considered as pillars for laying a solid claims management philosophy since the best claims management practices have to be defined without sacrificing any of these factors. In practice, insurers strive to achieve a balance between these three important factors in the effort to achieve customer satisfaction by providing quick and correct compensation for losses while not overpaying the claims or overspending during the settlement process.

Containing Loss Costs

The function of paying the appropriate amount as claim compensation requires accurate adjustment of the claim. Further there is scope to reduce the cost of goods used in the process of claims settlement besides using cost effective services for the purpose. Working towards an effective supply chain management is the current practice of insurers to reduce costs of goods while ensuring a streamlined supply.

Controlling Loss Expenses

Insurers now focus on achieving operational efficiency in claims settlement, while lowering the processing costs associated with claims. The aim is to obtain the maximum possible reduction in the total cost of claims. This puts an emphasis to look into identify and classify costs such as medical, allocated loss adjustment expenses (ALAE), and unallocated loss adjustment expenses (ULAE) as distinct and important components. Process Optimization and Business Process Outsourcing of select claims processes are now important means adopted by insurers to control the loss expenses.

Customer Focus

Technology advances have not only changed the way people shop for insurance, but also significantly raised the bar in terms of policy servicing and support. Claims being a key area where customers judge an insurance company, poor experience in claims settlement can be the primary reasons for switch at renewal. If insurers need to settle a pretty straightforward claim, they are looking to streamline that interaction. Claims segmentation techniques such as differentiating claims between simple, standard and complex provides twin advantages of offering differentiated service while containing the claims costs. It works by giving the right attention at the right time, to the right segment. This in turn results in a level of customer service that differentiates the insurance product, supports the efforts to attract new business and bolsters customer retention. Added to this, analytics to have a three sixty-degree view of the customer and provide the appropriate service in claims settlement works in ultimately creating a better customer experience and the retention stickiness to a higher degree.

Investing in Claims Management Information Technology (IT) systems, analytics or tools can yield returns in various ways, important of which are reduced claims payouts, lower processing costs and greater customer satisfaction.

What is Claims Leakage

'Claims Leakage' represents the difference between what is paid and what is actually to be paid. A simple definition of claims leakage is 'the preventable outflow of money related to the process of claims settlement'. There has been a lot of discussion, and some analysis, of claims leakage. The claims expenses that could have been prevented are caused by multiple factors including inefficient processing, improper payment, bad decision-making, process breakdowns and human errors. Insurer's efforts to control claims costs can be broadly classified into the following two key approaches:

- Streamlining operations in claims processing and introducing best practices to reduce the operating costs in claims management, such as claims process improvements, better training for claims staff and so on
- A set of other activities such as leveraging technology, harnessing best methods in procurement of damaged items, better litigation management and outsourcing certain claims processes to reduce costs

In seeking to address claims leakage, many insurers address indirect claims handling expense. In reality, the bulk of the insurer's overall expenditure is

towards indemnity costs and direct claims handling expenses. These include solicitors and loss adjuster's fees insurers.

Why Is It of Utmost Importance to Handle 'Claims Leakage?'

Reducing the quantum of claims leakage is currently one of the key areas of concern to small and large insurers, Third Party Administrators (TPAs), and ultimately the policyholders who face the penalty with loaded premiums. Worldwide claims expenditure for insurers account for around 80% of their total costs. The challenge is to attract and retain customers with a market leading claims service, which is also cost effective. The main reasons to handle 'Claims Leakage' include:

- Insurers stake their reputations on prompt, service-oriented claims settlement
- To be financially sound and offer competitive rates, it is imperative that insurance companies effectively plug the leaks which are:
- Caused by fraud (For example, financial year end, March 2022, witnessed a whooping ₹ 1,200 crores loss owing to motor vehicle insurance frauds in India)
    - o Quite apparent: customers demand that claims be paid quickly; the signs of frauds, irregularities are subtle
- Insurers' current systems are manual or automated more often than not lack the necessary speed and precision to do the job
- Claim costs have continued to escalate allied to an environment, which has become increasingly litigious. It has almost become socially acceptable to submit inflated claims
- Changes in technology and customer preferences place a high premium on low cost, differentiated by quality of customer service provided

Source of Claims Leakage

The main sources of claims leakage in financial terms can vary from one insurer to the other. The major causes are as discussed.

Fraudulent Claims

One common theme is a failure to detect fraudulent or over inflated claims. The magnitude of the problem is still growing. In spite of increased spending, three of five property and casualty insurers say their efforts to address this problem are only moderately effective.

Process Efficiency

Excessive reliance on manual processes resulting in the inevitable human error and the potential for the gradual building up of processing backlogs can give rise to significant pressures in the early stages of the claims value chain.

Failure to Harness Savings in Procurement

Inefficiency in the supply chain management results in irregular or badly timed procurement besides lower levels of service. Many insurers have adopted best practices in enlisting and dealing with a panel of preferred suppliers to avail the volume discounts and rebates. In the current scenario that supply chain management has grown more complex, there has been other savings potential by moving towards outsourcing of procurement of parts and services. Ordering just in time inventory through a preferred supplier network is another practice.

Litigation Costs

Many insurers realize that having an overdose of litigation in claims or managing claims with a tendency towards litigation results in inflating the overall claims costs, while delaying claims settlement. Other approaches like earlier out of court settlement are also preferred by many large insurers in all countries today. These work additionally to restore customer confidence and reduce the switch ratio.

Lack of Uniform Claim Settlement Procedures

Many insurers lack uniformity in claims settlement methods. Right from case reserve creation to settlement procedures and quantum, there is a variation in approach followed by claims handlers within an insurance organization more often than not. This can lead to uncertainties in claims handling of similar claims or even over payment of normal and valid claims. Possible solutions being employed include knowledge management system to look into repository of past cases and Web 2.0 based solution to facilitate interaction and knowledge sharing among the handlers.

Figure 2 - Analysis of preventable claims expenses

Reinsurance Recoveries

Very often, late identification of reinsurance recoveries or recoveries missed out can amount to huge sums adding to the problem of claims leakage. Similarly, the missed opportunities in third part or salvage recoveries also accumulate significant amounts.

An analysis of claims expenses show that some quantum of payments can be reduced as outlined in Figure 2 above.

Business Challenges That Lead To Claims Leakage

In practice, there are several forces and causes, which operate to pose a challenge to insurers to address the problem of claims leakage.

- Quite often, insurers are forced to pay **interest charges** on benefits processed due to delays in claims processing. It is the common practice to club these with the claims costs and not to capture these interest charges as a separate expense in the payment system
- Manual calculation of policy benefit due to **constraints of the systems** used to capture and handle claims payouts. Many claims processors lack knowledge base or are not trained to accurately determine benefit proceeds from legacy systems. This frequently causes erroneous benefit payments
- Insurers routinely rely upon reinsurance agreements to protect against overexposure or large losses. It is not common for the terms of these agreements to be maintained in the policy administration systems, which cause reinsured claims to go un-detected.

Best Practices in Handling Claims Leakage

Many insurers have adopted several varied techniques to reduce or eliminate claims leakage. Some of these are developed around IT-enabled controlled environment. Some others use cutting edge technology in the claims management process. A varied approach has been implemented for the stringent processes in scrutinizing the risk from the underwriting stage.

Following are the more common applications for enabling technology in addressing claims leakage:

- Adopting rules-based systems to handle claims which are of high volume and low value
- Using new software tools to throw up indicative case reserves. The tools can use the old claims data or other internal information. Besides they can use external benchmarking standards to set the reserves
- Identifying fraudulent claims more efficiently using modern tools and technology. This will include linking up to fraud databases pertaining to the geography in operation
- Enhancing supply chain management such as utilization of vendor services via the extranet of insurers. The actual sourcing may happen in real time or close. Electronic procurement systems provide the additional advantage of utilizing the services of the currently updated and preferred suppliers. Besides, it

throws up avenues for identification of volume discounts in procurement

- Using systems, rule-based approach for reinsurance placements and identification of third-party recovery opportunities. This coupled with online assisted recovery advice for the issue and collection process work towards higher recoveries
- Using predictive modeling in underwriting has now growingly been deployed as a key claim management tool. Using this, insurers are able to identify those claims that are likely to represent the greatest loss exposure. By directing attention towards the high-value claim, and then adopting leading claim practices, coupled with the business rules, and deploying the experienced claim resources, insurers have achieved significant reduction in claims costs

Managing and controlling litigation costs. Perhaps litigation costs to defend claims are one of the highest of the claims costs, in all geographies without any exception. A rethinking in the approach to handle legal costs to defend claims and a streamlined set of actions have benefitted some insurers.

Litigation Management – A Focus Area for Controlling Claims Leakage

While litigation management is looked at with interest as an area for not only reducing claims costs, but as an avenue to increase customer satisfaction and improve the image of an insurer by reducing unnecessary litigation, there are specific challenges in reducing legal expenses incurred on claims.

Impact of Cost Cutting

Insurers at times realize that it is not beneficial to cut costs such as changing the external legal counsel to a less expensive firm. The earlier firm though more expensive may be more familiar with the company's policies, procedures, products and underwriting philosophy and better poised to argue the cases favorably than a new law firm to handle the high value cases in the long run. Similarly, taking the issue of fee rate decreases with law firms while the cases handled by them are still in progress, may not work towards the legal firm taking up the case strongly enough and may end with a higher legal liability.

Return on Investment

Insurers often expect quick returns after implementation of advanced techniques or tools like predictive modeling software or legal bill review software. However, the savings on claims costs by deploying these methods can be expected only gradually as the bills are incurred over time and claims are such costs are compared over a longer period in time. Quite often, insurers expect quick returns after implementation of advanced techniques or tools like predictive modeling software or legal bill review software. However, the savings on claims costs by deploying these methods can be expected gradually as the bills are incurred over time and claims on such costs are compared over a longer period in time.

Litigation Management Initiatives

The problem of high costs of litigation has led to a series of efforts by insurers to address the issue. The management of litigation is being considered as both an Art and Science. The issue that every insurer faces is how best to spend amounts on defending claims to minimize the amount paid in indemnifying claimants. In addressing these issues, many issues need to be addressed, such as:

- Will the size of the claim be a deciding factor to determine how much to spend on defense costs?
- Does a higher rate or more expensive legal firm buy a better defense?
- In what claims scenarios are flat rates more successful?

Every insurer with its varied product mix has its own philosophy to handle these issues. There are certain initiatives recommended as best practices worth observing.

Panel of Legal Counsel

Litigation Management cells or units of insurers look closely at various options and selects and maintains a list of preferred panel legal counsel firms in all territories or states in areas of legal specialization related to their products. Some insurers prefer to work with a limited number of legal firms as possible to obtain maximum

leverage with these select firms. The process of selection and deployment is followed by review of firms, audit of work carried out accompanied by personal visits to the firms. Firms need to be continuously evaluated to ensure that best performance is obtained from them.

Insured Select Counsel

Insurers do have their own Legal Counsel Development programs to develop their own in-house legal counsel to specialize in their unique products and work with the framework of the claims policies and procedures of the company. There may be legal counsel specialized in handling specific problems and cases for a particular country when insurers operate on a global basis.

Alternative Fee

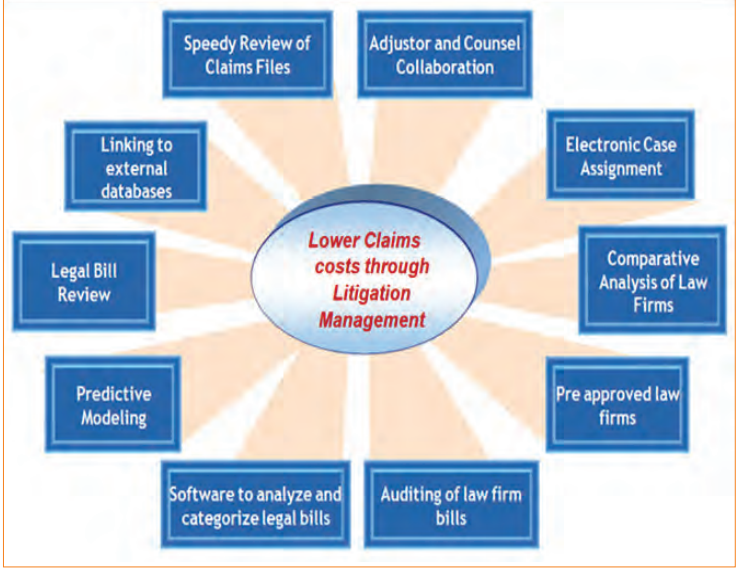
Alternate ways of compensating the legal counsel are another best practice. The hourly fee basis of billing for legal services is being considered inefficient and ineffective in bringing about reduction in total case costs. Alternate methods such as to compensate legal firms based on their performance or results as against the time spent alone are among the current thoughts of insurers.

Alternative Dispute Resolution (ADR)

ADRs have been a commonly used form of resolution of legal cases involving mediation and arbitration. Insurers and claimants have observed that having an independent third party between them to assist in resolving claim disputes outside of the litigation process has proven to quicken the lengthy claims settlement process than the legal route. Besides, it provides insurers savings in total case costs in the out of court settlements.

Alternate Attendance at Courts

Figure 3 - The spectrum of measures for steamlined Litigation Management



In certain geographies where the court permits, the legal firms are being encouraged to make their court appearances and contribution through telephone than a personal appearance. This will work to save travel time and associated costs of compensating the legal counsel.

Claim Litigation Training

The legal counsel and claims professionals trained on a regular basis on the insurer's claims philosophy, products and legal procedures make sure that the required sharpness in knowledge and approach is developed. Further, such initiatives are listed in the Figure 3 above.

Conclusion

The key task lies in identifying claims leakage before any technology or tools are deployed. It can start with an audit of closed claim files. A thorough analysis of the results of the closed claim files by looking into how they were settled or closed is required. As a next step, comparing them against several leakage factors will aid in the determination of the accuracy of the closure. This will indicate how bad the claims leakage is. For instance, the analysis can throw up results on how consistent the claims decisions are made, when compared across the insurer's claim organization. It will indicate if proper reserving and settlement guides are

used. Sufficiency of investigation to reduce the likelihood of fraud is another result arrived.

Further to this review process, adequate investment in claims technology and tools that would operate around the solid claims management philosophy of the insurer will go a long way to reduce the menace of claims leakage.

While designing an advanced claims system to address current and future challenges in claims and address claims leakage, the following key features will be taken care of:

- Extensible and flexible claims data model
- Functionality to cater to consolidation of claims data, integration with other internal and external systems and reporting platform
- Simplified claim function through consolidation of claims data, integrated systems, and reporting platform
- Advanced data-based decision monitoring
- Functionality to monitor various claims professionals such as claims adjusters and handlers
- Improved auditory functions to self-prevent regulatory expenses such as fines

TJ

References

1. Stuart Cowan, Lisa Hartman, William Quinn, Jr., and David A. Tweedy, (November, 2010), *Controlling Claims Leakage through Technology;* Retrieved on January 16th, 2023 *from* Controlling Claims Leakage through Technology | Expert Commentary | IRMI.com
2. James Pattillo , (March 2010); January 5, 2011, *5 Elements That Reports From Outside Counsel Should Have,* Retrieved on January 16th, 2023, from http://www.torttalk.com/2011/03/
3. Suzanne Ganier,(November 22, 2010), *Time to Get Creative – Reducing Claim Costs without Sacrificing Quality (or your sanity);* Retrieved on January 16th, 2023 from Time to Get Creative – Reducing Claim Costs without Sacrificing Quality (or your sanity) – The Claims SPOT;
4. https://www.zurichna.com/claims/litigation-management#:~:text=What%20is%20Litigation%20Management%3F,customers%2C%20brokers%20and%20defense%20counsel; Retrieved on January 16th, 2023
5. Rebecca A. Shafer, (February, 2010), *Workers' Compensation Claims and Litigation Management;* Retrieved on January 16th, 2023 from Workers' Compensation Claims and Litigation Management - Workers' Compensation Law Blog - Workers' Compensation - LexisNexis® Legal Newsroom
6. *The 7 Key Benefits Of Using Modern Litigation Management Software (January 2022);* Retrieved on January 16th, 2023, from https://www.mattersuite.com/blog/the-7-key-benefits-of-using-modern-litigation-management-software
7. *All You Need to Know About Motor Insurance Fraud in India;* Retrieved on January 17th, 2023, *from* https://www.mid-day.com/brand-media/article/all-you-need-to-know-about-motor-insurance-fraud-in-india-23257414#:~:text=Financial%20year%20end%2C%20March%202022,of%20around%204%25%2D4.5%25.

The General Insurance Market in India -Plethora of Changes

Sanjay Singh
singh.sanjay@shriramgi.com

Mr. Singh is working with Shriram General Insurance for the past 16 years under various capacities that includes the Underwriting aspects of both Motor and Non Motor lines of business. At present he is looking after the Liability Lines of business which includes the underwriting as well as claims management.

This article will depict clearly the importance of various changes that has emerged during the span of the General Insurance Market of India and its related importance to all the Insurers in the market.

Introduction

The setting up of IRDAI (The Insurance Regulatory and Development Authority of India) in 1999 is the key milestone change and considered to be the foundation point for the Insurance sector in India. The Indian Insurance Market has seen tremendous changes since the year 1999. The years of public sector General Insurers monopoly came to an end and Private Insurers made an entry in the year 2000. Next the year 2003 saw yet another significant change with the Brokers entering into the fray. Now after the introduction of full De-Tariff Regime Insurance in India has become a happening or changeable industry. It is believed that, after licensing of Private players in 2000/2001, the de-tariffing is the next biggest event of change in the Indian Non-life insurance field.

The Indian Insurance Sector has shown rapid expansion over the past seven years. Moreover, the increasing demand for consumer and industrial products and services plus elimination of a few of the trade and investment barriers have been the main drivers behind an exponential growth of the insurance sector in India. By this time when the General Insurance Industry is at its emerging trend, Private General Insurance players have grown rapidly to capture the considerable size of the market and helped pushing the industry growth rate as well as creating mass awareness. Now all the non-life insurers are considered as fully grown-up to take the challenges and enjoy the vagaries of changes imposed on the system put by the Regulator.

The Scenario during the Tariff Regime

Mandatory Tariffs were recognized for the first time in 1950 but even then, Tariff Regulators were only industry representatives. A tariff market is one where the premium rates, policy terms and deductibles are controlled and to be applied uniformly by all the underwriters. In India, about 70% of the market (Property, Engineering, Motor and W.C.) were tariffed i.e. policy wordings and minimum rates were fixed and each company was free to quote on the same guided rates. In other words, a tariffed market disturbed the fundamental component of liberalization i.e. free market, quality underwriting and open competition. India was the only country in the World where such huge portion i.e. about 70% of the market was under Tariff/ IRDAI/TAC control where Tariffs had been done away with in most markets around the world. The TAC (Tariff Advisory Committee) was constituted under Section-64U of the Insurance Act,1938 and till the de-tariffing TAC all along decided the terms/ conditions/ product pricing, i.e. controlling & regulating the premium rates of some classes of non-life insurance products, such as Fire, Motor, Engineering & Workmen Compensation.

The Scenario during the Detariff Regime

In 2005, the Insurance Regulatory Development Authority of India (IRDA) had announced that general insurance products (non-life

insurances) would be brought under a tariff-free regime with effect from January 2007. The detariffing was an empowerment for all the insurers that allowed to fix the premiums for the insurance products they offered based on their own analysis and perception of the risk involved in each case, without governmental regulation. In other words, the detariffing would increase the role and responsibility of the underwriter, and cause a shift from rule-based underwriting to risk-based decision-making. Thus the freedom on tariff enhanced the power of the Underwriters to a solid remarkable state where the bottom line and top line of the Insurers solely depend on the capability of its Underwriting modalities.

De-tariffing was implemented in two phases. In the first wave, insurers were allowed to modify the premium by a defined percentage from the earlier tariff rates, but the product terms and conditions were not allowed to be revised. In the second phase, which came into effect in March 2008, insurers were granted the freedom to price their coverages, including the customisation of add-on covers. Since then, additional rating parameters of varied nature came into being and have become important to pricing. The de-tariffing has paved the way for customer segmentation by rewarding good customers over the loss-making ones, thereby eliminating cross subsidisation to some extent. Because of this, a customer with a good risk profile can now expect an insurance quote at a lower price.

The Changes Post Detariffing in General Insurance Market

The Indian General Insurance Market changed its direction and moved towards achieving of global standards in Underwriting and Risk Management. This objective was achieved through empowerment and freedom on Tariff based Underwriting. The de-tariffing has eventually lead to an enhancement of risk assessment skills among insurers, product innovation, better customer service and an increase in the operational efficiencies. As a result, customers now enjoy a wider choice of products with better risk covers. In addition, the market finds a merit in maintaining a good profile, which translates to a favourable risk rating. In the evolving market, the quality of customer service and product innovation are bound to become key differentiators among insurers and the same has been achieved at present stage because of the complete detariffing formulas. There will be an increase in the use of virtual channels to reach and serve the customers in order to reduce operational costs and pass on these benefits to the end customer. Investments in technology and operations provides the backbone for an efficient and effective business operation and can become a significant source of competitive advantage and show a good change among the market participants.

The Standardization of General Insurance Products

Sustainable growth in the insurance industry primarily relies on consumers making informed choices by picking the right insurance products. But in many scenarios, consumers do face trouble in understanding the product rightly. The standardization of insurance products will make it easier for consumers to select the products correctly and suitably as per the best requirements of the clients.

One of the most promising solutions that the regulator has introduced is the Standardisation of Insurance products. With this move of standardising complex insurance policies, IRDAI has enhanced consumer buying in today's time. The health insurance penetration in India got a boast with the introduction of Arogya Sanjeevani policy which is a standard product in the health line of business.

There are several new standard insurance products under the same lines are namely Corona Rakshak, Corona Kavach, Saral Jeevan Bima and Standard Personal Accident Cover etc. The dismantling of the Standard Fire products associated with the erstwhile Fire tariff and the introduction of three standard products under Fire line of business such as Bharat Griha Raksha, Bharat Sookshma Udyam Suraksha and Bharat Laghu Udyam Suraksha. has also brought about a revolution in the General Insurance market.

The regulator has introduced Policy seekers several scenarios be it while comparing products or while making a choice from the plethora of options available in the market. Often these difficulties end up with customers having to delay their buying

decisions. During such situations, providing clear, transparent information to the consumers is of utmost priority. Simplifying the available options can turn out to be an excellent attempt to enhance the trust between consumers and the insurance eco-system.

The Scrapping of Burning Cost Model of Pricing

There was time when it was decided to accept Insurance as well as reinsurance placement only for clients where the risk was priced at premium rate on burning cost basis as arrived by IIB. In simple, the burning cost rate is arrived at by dividing claims paid by sum insured. Now the Insurance Regulatory and Development Authority of India (IRDAI) has advised all non-life insurers and reinsurers to ensure that the Insurance Information Bureau (IIB) published premium rates for fire and engineering policies are not embedded as the minimum rates within the reinsurance treaty agreements for the risks commencing on and after April 1, 2023.This attempt of the regulator again puts the Insurer in suicidal competition and the treaty arrangement with the national reinsurer becomes a very tight job. The business of the GIC Re is expected to be impacted in the coming years as the sectoral regulator scrapped the `burning cost` model of pricing by reinsurers. The policyholders were being led to believe that the burning cost released by IIB is a minimum mandated rate. Thus the burning cost model gave to the insurer a feeling of Tariff like atmosphere and suddenly there was revamping of the same which again gave an intense competition scenario in the market for all the players.

The Sand Box Regime in General Insurance Market

Regulatory sandbox refers to live testing of new products or services in a controlled regulatory environment. It acts as a "safe space" for business as the regulators may or may not permit certain relaxations for the limited purpose of testing. Regulatory sandboxes enable in a real-life environment the testing of innovative technologies, products, services or approaches, which are not fully compliant with the existing legal and regulatory framework. They are operated for a limited time and in a limited part of a sector or area. Few products approved under the Sand box mode is given:

Sr. No	Insurer	Proposal Name
1	Bajaj Allianz General Insurance Co Ltd	V-Pay Motor Insurance Product
2	TATA AIG General Insurance Co Ltd	Standalone Own Damage Agreed Value Two Wheeler Policy
3	Go Digit General Insurance Ltd	Network based Accidental Insurance for Rented Motor Vehicle
4	Reliance General Insurance Co Ltd	Livelihood Protection
5	TATA AIG General Insurance Co Ltd	Parametric Insurance
6	TATA AIG General Insurance Co Ltd	Credit Insurance for TReDS Platform
7	Bajaj Allianz General Insurance Co Ltd	Total Business Protection
8	ICICI Lombard General Insurance Co Ltd	Trade Credit Insurance for SMEs
9	TATA AIG General Insurance Co Ltd	Loss Limit Insurance
10	Shriram General Insurance Co Ltd	Standalone Fire Loss of Profit Insurance

The Revamp of Testing Time under Sand Box Regime in General Insurance Market

The initiatives of Sand Box will help in furthering the goal of insurance penetration and reaching out to more and more people in the country. The Regulatory sandbox refers to live testing of new products or services in a controlled regulatory environment. It acts as a "safe space" for business as the

regulators may or may not permit certain relaxations for the limited purpose of testing. Regulatory sandboxes enable in a real-life environment the testing of innovative technologies, products, services or approaches, which are not fully compliant with the existing legal and regulatory framework. They are operated for a limited time period of 6 months and now the same stands revised to 36 months or 3 years. One of the major challenge was that the applicants under the regulatory sandbox mechanism could apply through cohorts. By this move the Insuretech companies and the insurers with a passion to grow through technology mode will be the one marching ahead in the competitive system. The sandbox mechanism will nurture the niche players those who have the technology backbone and insurtech and have motive to cater to those areas which are still unserved in the country.

The State Insurance Plan- Insurance for All

Proliferation of insurance in every nook and corner of the country by focusing on each state/UT is the primary objective of the Regulator under the same project and aims towards Insurance for All.

The proposed State Insurance Plan is intended to accelerate last mile delivery of insurance services while utilizing the unique opportunities offered by each state. A joint effort from insurance companies, state authorities and direct participation of officials from IRDAI is envisaged to drive the agenda of the plan. State specific insurance profiles based on a proposed set of parameters may help bridge the gap between the insured and uninsured population while improving the overall quality of insurance services offered. All the stakeholders involved in this proposed approach are envisaged to have vital roles to bring about effective implementation of the plan. The approach may be implemented in phases starting with creation of individual state insurance profiles and developing an insurance inclusion plan in accordance to the profile. Each state/ region of India offers a unique set of opportunities as well as poses certain challenges when it comes to insurance inclusion. The intent of this initiative is to have a focused approach towards tapping into those opportunities and addressing the underlying challenges. Each Insurer is allocated with a specific state or Union territory to nurture and expand the insurance penetration and deliver the insurance products to the last mile individual.

The Changes that Could Boost Further Growth

Tax Incentives for Insurance products: It is expected that creating a separate section for a tax deduction on premiums paid towards life and health insurance will further help in boasting up the insurance sector of the country. This will effectively segregate customers' funds into long-term and short-term kitties. Considering the low single-digit penetration of life and Non-life insurance in India, tax incentives can be expected to focus on first-time life insurers and the principal component of annuity income. Special incentives may also be announced for women who currently account for barely more than one-third of the country's life insurance covers.

GST rate relaxation: GST rate relaxation from the current rate of 18 per cent on all insurance products may also help make it more affordable for the masses, who are keen on buying protection-oriented products like life insurance, health insurance and the allied.

Composite Licence for Insurers: The Regulator is set in all moods for granting of composite licences to the Insurers of the country. This move will help the Insurers to sell different financial products including mutual funds which in other words can be cited as the Insures are allowed to operate in multi lines like General, Life and Health lines. If an applicant meets the eligibility criteria for different classes and sub-classes of business, the regulator may register the applicant as an insurer and grant it a certificate of registration for such classes or sub-classes. With composite licence arrangement, insurers will now have more flexibility in operating in multiple lines of insurance business, without having a separate insurance company to sell life, general, and health business.

Revising the Capital requirements for Insurers: The rigid requirements of capital for setting up an insurance company is of Rs 100 crore is required for setting up a life, general, or health insurance business and for reinsurance it is Rs 200 crore. Now

very soon the insurance company be allowed to commence business with a minimum paid up equity capital as may be specified by regulations, considering the size and scale of operations, class or sub-class of insurance business, and the category or type of insurer.

The concept of Captive Insurers:
The captive insurer is an insurance company that is owned by the insured itself. In India, like large corporations and cooperatives, the government too can benefit from the use of insurance captives for public programmes like the Pradhan Mantri Fasal Bima Yojana (PMFBY) and Pradhan Mantri Jan Arogya Yojana (PMJAY). The captives have tremendous growth potential if they register within low-tax jurisdictions such as the GIFT City (Gujarat International Finance Tec-City). Given its tax incentives, GIFT City can emerge as a hub for captives for the entire Indian subcontinent. The introduction of the insurance captive concept is a winning proposition as it widens the choices for insureds providing greater flexibility and coverage for niche risks and also has the potential to revamp the implementation of self-insured government welfare schemes. The captive insurance industry emerged to address deficiencies and inefficiencies of traditional pooled insurance programs.

Conclusions

The constant entering of the General Insurance Market in India into severe changes has given a unique opportunity to its players. The penetration of this segment of the market is hovering around 1% of the GDP of the country and has a very vast scope for the new entrants to grow, prosper and deliver innovative products in this area. This is the reason why almost a dozens of new Insurance players are waiting to get the Regulatory nod and will give a severe threat to the existing participants and in this run the ultimate gainers seems to be the consumers. TJ

Sources

- **Business Standard**
- **The IBEF Org**
- **IRDAI circulars**
- **Indian Express**

Fire Load Calculation on Brewing Facility

Sara Fathima
sarafathima260@gmail.com

Ms. Sara fathima is Bachelors in commerce (BCom) bishop cottons women's Christian college, Masters of commerce's (Mcom) from Christ deemed to be university Bangalore teaching assistant as a part of masters programme under the supervision of Assistant professor Dr.Girish.S.

D Vaibhavee Raju
vaibhaveeraju13@gmail.com

Ms D Vaibhavee Raju, pursued Bcom at Christ deemed to be university and currently pursuing Master of Commerce at Christ University. Her keen interest in Breweries, Hotel Industry and Insurance motivated her to do this paper.

Dr Girish S
girish.s@christuniversity.in

Dr Girish S presently working as Associate Professor, Department of Commerce at CHRIST University Hosur Road Campus Bangalore. He having 17 years teaching experience with an Area of specialization in Finance, Banking and Insurance. He has presented various research articles in national and international seminars and conferences and also published articles in national and international reputed journals.

Abstract

The paper concentrates on the fire risk assessment and calculation of the fire load while underwriting a proposal for a brewing facility and optimum premium also provided as the components that go into the same while keeping in mind that no much research is done on the brewing vicinity and made sure that it should be understandable by the Non-insurance background readers as well, in the calculation of the fire load that is being calculated is based on the calorific values that is acknowledged by a reputed insurance firm, it gives a brief insight about the brewery which is located in Bangalore and how sensitive the brewery is towards fire it also involves the precautionary measures to be considered by the Breweries to avoid the peril-fire, through this paper we come to the results that 151.2 KJ/Kg was the fire load that was obtained to the brewery of 525 sqft of area that we examined for our research purpose.

Keywords

Fire Load, Brewery, Calorific Value, Peril, Measure.

Introduction

Fire as a term refers to a chemical reaction between various substances which includes oxygen and produces heat and light. This paper deals with calculation of fire load of a specific space. For better understanding Fire load refers to the possible intensity of a fire inside a specific space. As such, it is a type of hazard

assessment that is used to determine the level of fire risk in a given area. To calculate fire load, one must evaluate the defined location therefore, we can say that Fire load inspections actually require the evaluation of all materials found in order to determine the total flammability of the area. This includes any combustible items and chemicals stored in the structure, as well as the material used to construct it. The happening of a fire inside a facility is an unpredicted event that can result in the loss of lives and loss of property. The amount of fuel load present in an area and the increase in temperature in the brewery are the two primary factors of the level of structural damage when a fire begins in a brewery or compartment.

Study Area

Brewery

A brewery, also known as a craft brewery, is a company that manufactures and continues to sell beer. A brewery or a beerhouse is where commercial beer is made, and distinct sets of brewing equipment are referred to as plant.

The area of our research as mentioned is based on brewing facility, Gold Rush is located in Old Madras Road, Battarahalli, Krishnarajapura, Bengaluru, Karnataka 560049 were we got to examine their process of brewing and estimate the fire load for the equipment's used in their process such as coolers, boilers, rubber mats etc. so that the risk of the area is estimated. For the purpose of ascertaining the sum to be insured and premium to be charged While underwriting a fire insurance policy of the brewing area for the brewing facility.

As per the government rules the minimum area required to build a brewery is 10,000 Sqft,and based on the area within this the permission is given for the heating capacity, and the quantity that can be brewed is depended on the Sqft following which the brewery obtained for our research is 525sqft and adequate quantity of beer is brewed as per the government order.

Motivating Factors of Fire Risk That Are Considered For Risk Assessment

- **Explosion**

  Dust from grain or sugar used in brewing beer can combust into a flash fire or fireball under the right conditions. If the fireball is created in a confined space, the pressure can build up to the point where the resulting explosion can rupture equipment or even the building's walls.

- **Ceiling material used to result in implosion:**

  The material of ceiling used inside the brewing facility is of PVC (Polyvinyl chloride) which is a form of plastic which is dangerous as the brewing process involves boiling at high temperatures the heat released from the boilers can lead to melting of the ceiling and this will impact the containers of beer which contains raw materials of (grain**, hops, yeast, and water**.) to react and result in the implosion.Implosion effects the surrounding area of the containers.

- **Surrounding areas of brewery**

  The area sounding brewery is a restaurant which includes a kitchen which involves LPG gas cylinders, burners, oil and flammable materials in a restaurant and a MRP outlet of alcohol housekeeping also plays a vital role

Review of Literature

Fire is one of the most dangerous hazards and can be reduced by analyzing fire loads and providing adequate firefighting equipment in an Indian manufacturing industry. (Karthick Suresh1, 2021).

The study evaluates "XYZ Industry Private Limited" in Sanand, Gujarat, for fire adequacy in accordance with the Gujarat Factories Rules, 1963. The overall fire load density was 1190.25 MJ/m3, and the total amount of water required to put out the fire was 646 KL (approximately). Which is much is considered much riskier (1 Kiran Pawar, 2021).

The number of hours it takes a fire to start burning is determined by estimating the fire load - i.e., in the case of a short circuit or other fire catastrophe in a library. (Dr.N. Sarvanana Dr.A.M. Venkatachalam, 2020).

One of the most dangerous situations that can arise from either natural or

artificial causes is fire. Metropolitan regions have experienced an increase in fires in recent years. You can decrease the severity of flames by analyzing the fire load and providing adequate firefighting resources. ((M.E)2, 2021)

The fire load in office and dormitory buildings in India was measured and probabilistically defined in this study, and it was discovered to be three times more than what is declared and prescribed by building codes. Parametric fire curves have been designed to assess the severity increase, indicating that there is a higher fire risk. (Srivastava, 2023).

Objective of the Study

A lot of research papers done on fire load there is no much study in the field of Breweries. This study encourages the owners of the breweries to know the high risk associated with the process of brewing and move towards opting for more precautionary measures to manufacture beer and choose an appropriate insurance policy that is required.

Methodogy

Fire Load Density is the amount of heat released from a combustible material per square ft. of floor area. The object's load is determined in kilograms. To calculate the fire load, multiply the measured mass by its calorific value in kJ/kg. The calculated value is then divided by the floor area to calculate fire load density.

The calorific value is the total quantity of energy produced as heat whenever a material completely burns with oxygen under normal circumstances. And each and every item has its own calorific value and basically depends on the plastic contained in such each item.

The formulae of Fire Load are given below:

$$qc = \sum mv\ Hv\ /\ Af$$

Were,

qc = Fire Load density in (Kj/kg)

mv = Total mass of the combustible material in kg

Hv = Calorific value of the combustible material in(kJ/kg)

Af = Area of floor in (sqft)

Kj = Kilojoules unit used to measure energy

Kg = Kilograms

These are the elements that are considered in the process of brewing.

The common combustible material used in the all areas with their calorific value is shown by table 1

Table 1: Calorific values of combustible materials

Sl no.	Combustible materials		Calorific value in kJ/kg
1	COOLER	ALUMINIUM	0.9 kJ/kg
2	ELECTRICAL BOX	ALUMINIUM	0.9 kJ/kg
3	WALL CLAD TILES	VETRIFIED TILES	1 kJ/kg
4	A.B.CP.B. O	STAINLESS STEEL	0.468 kJ/kg
5	PRO OUTPUT UNIT	STAINLESS STEEL	0.468 kJ/kg
6	DRAIN	STAINLESS STEEL	0.468 kJ/kg
7	Co2 CYLINDER	CAST IRON	0.46 kJ/kg
8	GLASS	TEMPERED GLASS	0.78 kJ/kg
9	FLOORING	GRANITE	0.79 kJ/kg
10	CEILING	PVC	2 kJ/kg
11	RUBBER MAT	RUBBER	2.01 kJ/kg
12	MISC. S STEEL	STAINLESS STEEL	0.468 kJ/kg
13	MISC. ALUMINIUM	ALLUMINIUM	0.9 kJ/kg

MASS=VOLUME *DENSITY VOLUME=LENGTH*WIDTH*HEIGHT

The below mentioned calculator link was used to calculate the mass of the materials https://www.danialplastic.com/metcalc/metcalc/cal.html

Table 2- Determination of mass

MATERIALS	LENGTH	WIDTH	THICKNESS	DENSITY
COOLER	9	6’	1.2mm	2.7
ELECTRICAL BOX	4	12’	1.5mm	7.85
WALL CLAD TILES	10	85’	20mm	2.5
A.B.CP.B.O	4	3’	3mm	8.03
PRO OUTPUT UNIT	10	8*8nos	3mm	8.03
DRAIN	39	1’	3mm	8.03
Co2 CYLINDER	5	3*3nos	6mm	7.85
GLASS	7	14’6	12mm	2.5
FLOORING	35	14’3	12mm	6
CEILING	35	14’3	10mm	1.38
RUBBER MAT	20	2	10mm	1.34
MISC. S STEEL	120	6	3mm	8.03
MISC. ALUMINIUM	60	1	1.22mm	2.7

Note: the length, width was measured and ascertained manually

Table 3: Calculation of energy contained

COMBUSTABLE MATERIALS	CALORIFIC VALUE (Hv)(A)	MASS (Mv) (B)	ENERGY CONTAINED (kj/kg) (Mv*Hv) (A*B)	DENSITY
COOLER	0.9 kJ/kg	16.6336 kg	14.97024	0.3069
ELECTRICAL BOX	0.9 kJ/kg	18.1787 kg	16.36083	0.3354
WALL CLAD TILES	1 kJ/kg	3553.5413 kg	3553.5413	72.8632
A.B.CP.B.O	0.468 kJ/kg	297.466 kg	139.214	2.8545
PRO OUTPUT UNIT	0.468 kJ/kg	1442.2595 kg	674.977446	13.8388
DRAIN	0.468 kJ/kg	87.8877 kg	41.1314436	0.84330
Co2 CYLINDER	0.46 kJ/kg	179.3844 kg	83.9518992	1.7212
GLASS	0.78 kJ/kg	284.0603 kg	221.567034	4.5427
FLOORING	0.79 kJ/kg	1474.9287 kg	1165.19367	23.8896476
CEILING	2 kJ/kg	628.21 kg	1256.42	25.7600
RUBBER MAT	2.01 kJ/kg	49.796 kg	100.08996	2.0521
MISC. S STEEL	0.468 kJ/kg	135.2118 kg	63.2791224	1.2973
MISC. ALUMINIUM	0.9 kJ/kg	53.0439 kg	47.73951	0.97879
∑ Mv Hv	7378.43646			

As per the **table 3**, highest fire load was contributed by ceiling (PVC) (25.7600 Kj/Kg) following wide spread flooring (granite)(23.889 Kj/Kg) and lower fire load was recorded for cooler (aluminum)(0.3069 Kj/Kg) followed by electrical box (aluminum) (0.3354 Kj/Kg) And the total density is 151.2837 Kj/Kg

Converting SqFt into SqMt :

1Sqft=0.092903SqMt

Area of the Brewing Facility is 525 SqFt

Therefore, X=525*0.092903Sqmt

Af= 48.774Sqmt

Calculation of fire load based on the above details are as follows-

$qc = \sum Mv\ Hv\ /\ Af$

qc= 7378.43646/48.774

qc=151.2837

the fire load density is 151 Kj/SqMts

Therefore, the risk of fire involved in the brewery is considered to be so much and accordingly the insurer calculates the premium depending on the fire load of the brewing facility.

BREWING AREA FIGURES-

Figure-1 Right Facing On Entering

Figure-2 Left Facing On Entering

Figure-3 Auto Cad Drawing of the Brewing Facility Including Measurments

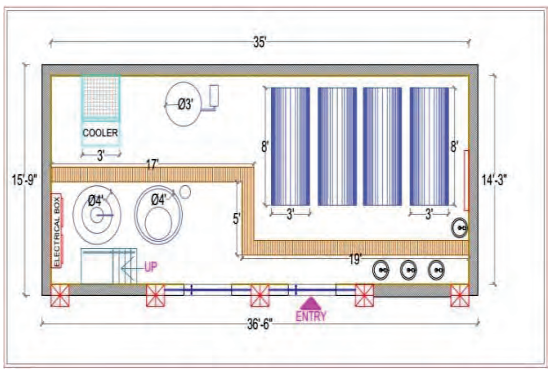
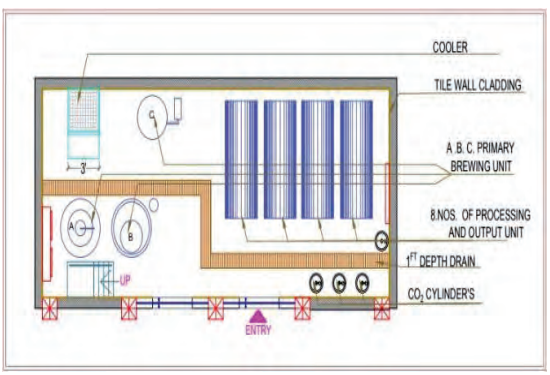


Figure-4 Auto Cad Drawing of the Brewing Facility



Auto Cad Representation of the Brewing Facility

In fire insurance there are 12 perils to be kept in mind, the following are the 12 perils: FLEXA (Fire, Light, Explosion, Implosion, Aircraft Damage), RSMD (Riots, Strikes, and Malicious Damage), STFI (Storm, Tempest, Flood, Inundation, Hurricane, Cyclone, Typhoon and Tornado), EARTHQUAKE (EQ) these are the perils that can be covered in a fire insurance.

The fire insurance premium is calculated based on the perils mentioned above and the Pin code. Pin code here refers to the locality of the property being insured. Premium is also calculated based on the zones, there are 4 zones (zone1, zone2, zone3, zone4).

India's four seismic zones are identified based on the frequency and severity of earthquakes that can take place in that region.

- Zone I - This zone encompasses all of north-eastern India, including parts of Jammu and Kashmir, Himachal Pradesh, Uttaranchal, Gujarat's Rann of Kutch, parts of North Bihar, and the Andaman and Nicobar Islands.
- Zone II - Moderate Damage Risk Zone: This zone includes the remaining parts of Jammu and Kashmir and Himachal Pradesh, the Municipal Corporation of Delhi, Sikkim, northern parts of Uttar Pradesh, Bihar and West Bengal, Gujarat, and slight segments of Maharashtra near the west coast, and Rajasthan.
- Zone III includes Kerala, Goa, the Lakshadweep islands, and sections of Uttar Pradesh, Gujarat, and West Bengal, in addition to sections of Punjab, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, Maharashtra, Orissa, Andhra Pradesh, Tamil Nadu, and Karnataka.
- Zone IV - Extremely Minimal Impact Risk Zone: The remainder of the country is covered by this zone.

Following which, there are 3 categories called INDUSTRIAL (relating to, or engaged in industry), NON-INDUSTRIAL (not industrial based, nonindustrial buildings/ societies/products AND GODOWN (a warehouse or other storage place), these aspects are also kept in mind while calculating premium.

Information Procurement for Valuation of Optimum Premium for the Brewing Facility-

GO DIGIT INSURANCE LIMITED (Special acknowledgment)

For the purpose of calculation of optimum premium (premium to be charged) for the area of the brewery we consulted GO digit general insurance limited, we must keep in mind firstly, the occupancy, that is what kind or what work is being done in the brewing facilities and breweries come under distilleries.

secondly, there are 3 Rates to be considered while calculating the premium that is, the FLEXA rate also called as IIB rate, STFI rate, EQ rate and lastly TERORISM rate which is an additional cover.

Calculation of Premium- The rates Required rates /Required values –

1. SUM INSURED (SI)
2. FLEXA RATE
3. STFI RATE
4. EQ RATE (EQ)
5. TERRORISM RATE

In regard to the brewing facility the following rates are required for the calculation of premium on the sum insured the additional rates of STFI, FLEXA and EQ which are fluctuating in nature are added in units of per mille and the tax rates of 18% are included

SUM INSURED(SI)	4,00,00,000 (approx.)
FLEXA RATE	0.89
STFI RATE	0.25
EQ RATE(EQ)	0.05
TERRORISM RATE	0.23

To calculate the Premium after determination of the standard rates, the following equation must be used-

PER MILLE VALUE= (FLEXA RATE+ STFI RATE+ EQ RATE)
(Note- Per mille =1000 units)

PER MILLE VALUE**(X)** = (0.89+0.25+0.05) = 1.19
A=(X)*SI /1000

A= (1.19)4,00,00,000/1000

A=47,600

(A-one of the factors to be determined to calculate the final premium which includes all the perils excluding terrorism)

B-(TERORSIM) – (Additional cover-optional)

B=SI*(TERRORISM RATE)/1000

B= 4,00,00,000*0.23/1000

B=9,200

TOTAL=(A+B)18% A+B = 47,600+9200 A+B = 56,800*18% A+B= 56,800+10,224

A+B= 67,024

Optimum premium amount = 67,024(approximate values)

(Note-18% is the tax rate; all the above rates are subject to change by month of April). Using the above calculation formulae's, the optimum premium can be determined.

Precautions

- Check that smoke detectors have new batteries and that fire extinguishers are ready to use.
- To keep important documents safe, purchase a fire-resistant safe.
- Establish an inspection schedule to reduce the risk of fire in the brewery. (Schedule your first inspection as soon as possible, especially if it's been a while since your last one)
- Label and store all chemicals properly, and store all other supplies in a fire-safe manner.
- Fire safety procedures should be taught to brewery employees. They should be aware of the locations of fire alarms and extinguishers, as well as how to use them.
- Regularly test the brewery's fire alarm and sprinkler systems.
- Conduct fire drills.
- Remove any debris from the brewery's roof and gutters.
- Clear your brewery's property of any dead plants, trees, branches, or debris.
- Remove any branches that hang over the roof or are within six feet of the brewery.
- Make sure to water your landscaping regularly.

Conclusion

Brewery's insurance policies must include adequate fire safety coverage, and keep in mind that an utmost prevention is worth a bottle of great craft beer. We chose our research paper domain as brewery because there are many breweries existing as well as coming up these days with concept of craft brewery which involues high risk and there is very less scope in insurance industry for breweries and the major factors that motivate the fire to ignite are mentioned in our paper, all the values that are contributing to the calorific values are in approximation this is an attempt made to give insights about how the fire load considerations are done even for the readers who are not exactly from the field of insurance there Is also insights to further scope of research given in our paper of the rates that are required to calculate the premium that is to be set for a particular policy , the reason that insurers refrain from insuring breweries is the fact that it possesses a very high risk. We encourage more research scholars to conduct research and explore on breweries as it is less-untapped. TJ

References

(M.E)2, K. S. (2021). FIRE RISK ASSESSMENT AND FIRE LOAD CALCULATION IN MANUFACTURING INDUSTRY. *INTERNATIONAL JOURNAL OF CURRENT ENGINEERING AND SCIENTIFIC RESEARCH (IJCESR)*.

1 Kiran Pawar, 2. G. (2021). Fire Load Density and Fire Adequacy – An Important Tool for Firefighting.

INTERNATIONAL JOURNAL FOR INNOVATIVE RESEARCH IN MULTIDISCIPLINARY FIELD, 5

Dr.N. Saravanana Dr.A.M. Venkatachalamb, D. B. (2020). Estimation of Fire Load Calculation in College Library. *Journal of Information and Computational Science*, 8.

Karthick Suresh1, G. (2021). FIRE RISK ASSESSMENT AND FIRE LOAD CALCULATION IN MANUFACTURING INDUSTRY. *technical research organisation india*, 12.

Srivastava, N. A. (2023). Enhanced fire severity in modern Indian dwellings. *Current Science Association with JSTOR*, 7.

Economic Growth Factors Influencing Emerging Market Economies

Aanchal Andrews
AanchalAndrews24@gmail.com

Ms Aanchal Andrews is Senior Credit Risk Specialist, Wells Fargo USA and Research Scholar at IIS University, Jaipur. Ms Aanchal Andrews has Five years plus of work experience in accounting (audit), banking and finance industry.

Dr. Deepa Pareek
Deepa.Pareek@iisuniv.ac.in

Dr. Deepa Pareek has more than 15 years of teaching experience that includes being a Professor for 13 years and an Associate Professor for 6 years at the Department of Economics, The IIS University.

Abstract

The paper aims to search for confounding factors that are instrumental in the economic growth of the selected 19 economies that are emerging as recognised by IMF. Also, consistent with these findings, to inquire the profound influence of multiple factors on the economic growth of 19 EMEs from 2000 to 2017. The purpose of the study is to identify factors responsible for the growth of selected emerging markets (EMEs), analyse their growth trajectory and suggest policy implications for EMEs. This objective is fulfilled with the help of panel data regression models, namely, pooled regression models, fixed vs. random panel models, and dynamic panel regression models. The study found a significant and positive influence of broad money, agriculture, capital, air transportation and, current account balance on the economic growth of the countries. However, health expenditure, life expectancy at birth and credit have a negative impact on the GDP of 19 selected EMEs.

Keywords

Economic Growth, Emerging Market Economies (Emes), Panel Data Regression.

1. Introduction

Emerging market economies (EMEs) are countries moving towards significant economic development. These countries have poor standard of living and insufficient commercial based infrastructures. Comparatively, developed economies are countries featuring comfortable life, sufficient and, strong commercial and solid infrastructures (Roztocki & Weistroffer 2008; Purkayastha et al., 2012). A strong economy enables EMEs to slowly move towards their advancement by positively improving their standards of living and creating strong and competitive infrastructures (Roztocki & Weistroffer, 2011; Luo & Zhang, 2016). The transformations occur across social, economic, political and demographic dimensions of the economy (Elango & Jones 2011). These transformations result from such an economy's structural and institutional changes (Dietrich, 2012). Structural changes imply reallocation of productive labour between sectors with different productivity levels, such as agricultural, engineering and

manufacturing and goods and services sector (Montobbio, 2002; Kuznets, 1966). While significant research has been conducted to explore the factors (combination of structural and institutional factors) influencing economic growth of developing markets (Kaynak et al., 2005; Everhart et al., 2009; Anyanwu, 2014; Bakirtas & Akpolat, 2018) and to establish significant relationships in these contexts, there is still ambiguity as to what and how distinct economic factors influence EMEs' economic growth. As such, research on EMEs market economies has become critical to the global landscape since these EMEs, from being small-time players, have now become long-time players are expected to dominate and play a vital role in the economic growth of entire world.

The paper aims to search for confounding factors that have been and are going to be instrumental in the economic growth of selected 19 economies that are emerging as recognised by IMF by analysing data from 2000 to 2017. Novelty of this study lies in the fact that (1) it focuses on 19 EMEs as recognised by IMF. These 19 large EMEs are mentioned in the sample design section and; (2) this study is the first to deal with such vital factors that are recognised important by World Bank report. Key factors identified were agriculture and rural development, health, education, infrastructure development, economic indicators, financial sector growth, poverty and equity. This scientific research will take into consideration all these factors together to verify their effects on economic growth of such markets; (3) this study is also first of its kind to investigate profound influence of these selected vital growth factors of 19 EMEs as recognised by IMF, from 2000 to 2017.

2. Literature Review

This section provides the literature review of the economic growth factors.

"Agriculture sector" in rural area is developed and measured with respect to total "value-added" in economic growth (GDP) of a country (World Bank, 2012). Khan et al. (2020) revealed through empirical analysis that economic growth of West Bengal is strongly driven by agriculture sector as it was considered a root cause of livelihood and raw material supplier to industries in this study. Observations on agriculture being an import determinant in economic growth were also made by Yao (2000), Baig & Straquadine (2014). Consequently, the hypothesis drawn is as follows:

Hypothesis 1: "Agricultural and rural development factors significantly influence the growth of selected EMEs"

"Health sector "is measured in terms of total expenditure to maintain good health of the entire population. "Life expectancy" (in years) and the estimated "mortality rates" are determinants of good health (World Bank, 2012). Bloom et al. (2004) found that health contributed positively and significantly in the economic rise of a group of major countries that operated every ten years from 1960 to 1990 as it influenced labour productivity and improved the countries' GDP as well as lowering mortality rates at the same time. Findings on health sector being an import determinant in economic growth were also made by Sarwar et al. (2021) .Therefore, the following hypothesis was derived.

Hypothesis 2: "Health-related factors significantly influence the growth of selected EMEs"

"Education" is measured as total expenditure made by a country to improve its GDP. Here, it is measured in terms of "age dependency ratio" and "individuals using internet". The World Bank displays these measures on its official website (World Bank, 2012). Peng (2005) studied the growth trajectory of Chinese economy and found that education from a human capital perspective was significantly linked to China's economic growth between periods 2000 and 2030. Observations on education being an import determinant in economic growth were also made by Oketch (2006). Therefore, the following hypothesis was derived.

Hypothesis 3: "Education development significantly influences the growth of selected EMEs"

"Infrastructure development", as indicated by World Bank on its official website, is measured in terms of "gross capital" or "fixed capital" (World Bank, 2012). Infrastructure development is mainly related to roads, rails, air transport, and electricity supply infrastructures (Palei, 2015). Sahoo & Dash (2009)

also arrived at the conclusion that infrastructure development was ket in the growth of Indian economy. Therefore, the following hypothesis was derived.

Hypothesis 4: "Infrastructure development significantly influences the growth of selected EMEs"

"Economic indicators" are measured in terms of "employment to population ratio". This measure provides information on current and future employment growth with respect to its GDP (World Bank, 2012). Akeju & Olanipekun (2014) researched and observed that a negative relationship existed between unemployment rate in youth and Nigeria's overall economic growth. Therefore, authors have suggested that more FDI and other fiscal measures must be encouraged to reduce high unemployment rate in Nigeria.The same positive effect was confirmed in the study conducted by Jensen(2006) and Akinsola, & Odhiambo. (2017) in their research analysis. Consequently, the hypothesis is as follows:

Hypothesis 5: "Economic factors significantly influence the growth of selected EMEs"

"Financial sector growth" is measured in terms of "domestic credit provided by the financial sector" (World Bank, 2012). Duican & Pop (2015) analysed data from Romania at regional level from 2005 to 2014 and found that credits significantly influenced GDP of Romania. Pistoresi & Venturelli (2015) found that between 1995 and 2000, commercial bank credits strongly and positively influenced the economic growth measured as GDP of Germany, Italy and Spain. . Consequently, the hypothesis is as follows:

Hypothesis 6: "Financial development indicators significantly influence the growth of selected EMEs"

3. Methodology

3.1 Objective

The study aims to identify factors responsible for growth of selected EMEs, analyse their growth trajectory and suggest policy implications for EMEs. The objective targets to evaluate impact of identified factors responsible for past growth of the selected EMEs.

3.2 Research Design

The study uses *descriptive research design*. The research study discusses factors contributing to growth in markets that are emerging. The paper describes the impact of identified factors responsible for the past growth of selected EMEs.

3.3 Sampling Design

The study selected a sample of 19 large EMEs based on an IMF working paper (Bems, Caselli, Grigoli, Gruss, &Lian, 2018), *namely Chile, Romania, Argentina, South Africa, China, Philippines, Hungary, Thailand, Brazil, Indonesia, Bulgaria, Peru, Russia, Mexico, Colombia, India, Turkey, Malaysia and Poland.* The IMF paper suggests these countries based on availability of consistent data, trends and forecasts for inflation and a minimum population of two million people. Annual data for selected variables were collected from 2000 to 2017. The final reference year is chosen as 2017 being the last available year of annual data.

3.4 Data Type and Data Collection Source

Data of selected variables of nineteen countries are secondary and collected from World Bank databases. The data is also panel data as it includes two components of panel data, namely cross-section (countries) and time (eighteen years, 2000 to 2017).

3.5 Variables

The data on selected variables is collected from World Bank databases. Selection of variables is done across various categories like: agricultural and rural development, education development, health related factors, infrastructure development, economic factors and financial development. Within these categories variables are selected basis review of relevant literature and availability of consistent data from 2000 to 2017 for all selected countries. See Table 1.

3.6 Statistical test

This objective is fulfilled with the help of correlation analysis, followed by panel data regression models, namely, pooled regression (PR) models, fixed vs. random panel models, and dynamic panel regression models. Correlation analysis is to eliminate strongly correlated independent variables in the study. PR is applied to nineteen countries, as all countries (cross-section) are assumed to be homogeneous. To account for

plausible heterogeneity, panel regression models are also applied to selected countries. In the panel regression model, fixed and random effect models are tests that are applied the most that incorporate cross-section effects, i.e. cross-sectional heterogeneity in the regression model. The study applies F test and Hausman test to select the most appropriate model for collected data in the study.

4. Data analysis and interpretation

4.1 Factors contributing to the growth of EMEs

GDP of selected countries is assumed as a measure of economic growth and is the dependent variable which is explained using panel regression models. This paper aims to identify standard variables influencing GDP in general for all countries using panel data. Fixed and random effect model in this segment explains the individual heterogeneity of included countries. Panel regression starts with analysing relationship between selected variables for all countries in four stages. Stage one examines PR model and identifies variables contributing to selected countries' GDP. In the second segment, PR model is modified by removing insignificant variables from the regression model, leaving contributing variables in the regression model. The third stage includes removing three countries, namely Thailand, Mexico and Columbia, due to unconventional reasons for growth in their economies. Independent variables selected in the study for these countries are not significant in explaining GDP. PR model is applied to remaining sixteen countries. In the fourth stage, insignificant variables are removed from the PR model, leaving only significant independent variables explaining significant contribution toward remaining countries' GDP. This is followed by applying panel regression model (fixed and random). Results of the research are discussed in subsequent sections.

4.2 Correlation assessment

The relationship between GDP and selected variables in the study is examined through a correlation assessment. Table 2 shows Results of Correlation Analysis. Results reported existence of a significant correlation amongst variables represented in bold. GDP is found to be significantly correlated with ADR, AFW, AFV AGR, AT, ACP, BM, CHE, EMP ratio, GCF and IU.

The different independent variables are significantly correlated with GDP that is assumed as the dependent variable in the study. In addition to this, different independent variables are also moderately correlated with other variables. The relationship between dependent variable, i.e. GDP, and independent variables is examined with the help of regression models.

4.3 Pooled regression (PR) model

This segment discusses influence of selected independent variable for included countries on their GDP. GDP of countries is assumed as the measure of economic growth of countries and assumed to be the dependent variable. However, different independent variables are collected to analyse their impact on the GDP. Multivariate regression analysis (PR model) examines impact of selected independent variables on GDP of selected countries. PR models can be stated as:

$$\text{GDP}\ (Y) = \alpha + \beta_1{*}X_1 + \beta_2{*}X_2 + \beta_3{*}X_3 + \beta_4{*}X_4 + \beta_5{*}X_5$$

Where, dependent variable is Y. Intercept is α and the slope coefficient is β. The independent variable is X_i as represented in the study. The following hypothesis is tested via PR analysis:

Hypothesis: "There exists no significant impact of selected independent variables on the GDP of the EMEs"

PR is applied in the study four times (i.e. four different models are used in order to evaluate effect independent variables has on GDP as explained above. Thailand, Mexico and Columbia, have been excluded from PR model 3 and 4 due to unconventional reasons for their economic growth. Thailand's growth is driven largely by tourism. Tourism is vital to Thailand in order to attract foreign currency spending. This in turn adds international funds which helps to make best use of resources from other corresponding sectors. Same is the case for Mexico which has a great scope to promote tourism. In case of Columbia, it is also growing in its creative industry space especially in video, film, photography and interactive games. Therefore for these 3 countries, the

independent variables selected herein are not substantial in explaining GDP. PR model is applied to remaining sixteen countries. Result from PR analysis is presented in Table 3. The table reported results of four regression models, namely Pooled effect model (All countries), Refined Pooled effect (All countries, Pooled effect model (After removing unconventional countries) and Refined Pooled effect (After removing unconventional countries).

Results failed to support the hypothesis that "there exists no significant impact of selected independent variables on GDP of EMEs" in the case of AFV AGR, ADR, BM, DCF , GCF, and Internet usage. The slope coefficient of independent variable AFV AGR is positive and significant, indicating that higher values of AFV AGR increase the GDP of EMEs. The slope coefficient of BM and GCF is significant and positive, indicating positive influence on GDP of EMEs. However, DCF and IU, the slope coefficient is negative and significant, indicating inverse relationship with GDP of EMEs.

4.4 Pooled vs. Panel regression Model

In case of PR applied to nineteen countries, all countries (cross-section) are assumed to be similar (homogeneous). However, there is a possibility of differences among countries due to their geography, culture, demography and institutions. Thus, assuming the heterogeneous nature of the countries, PR model must be modified. Thus, the study applies panel regression models to the selected countries. In the panel regression model, fixed and random effect models are tests that are applied the most that incorporate cross-section effects, i.e. cross-sectional heterogeneity in the regression model. The study applies the F test and Hausman test to select the most appropriate model for collected data in the study. The F and Hausman test results are presented in Table 4.

Results indicate cross-section F statistics are significant, representing significant differences in cross-section (heterogeneity) in selected countries. Selected countries are significantly different due to difference in government policies, demographics, geographic locations, political environment and institutions. Further, Hausman test is applied the results of which are found to be significant. Thus, fixed effect model of regression is applied in the study to examine relationship between selected economic indicator and GDP of the selected countries.

4.5 Fixed Effect regression models

This segment discusses influence of selected economic indicators on GDP of selected countries with help of a panel data regression model. In the panel data, annual data of 19 countries are included for 18 years from 2002 to 2017. The nature of data is the balanced panel. GDP of countries is assumed as measure of growth in economies of these countries which is the dependent variable. However, different independent variables are also collected to analyse their impact on the GDP. The multivariate fixed panel regression analysis (based on F and Hausman Test) is used to evaluate the impact of selected independent variables on GDP of selected countries. Fixed effect panel regression models can be stated as:

$$\text{GDP}\ (Y_{it}) = \alpha_{it} + \beta_1 {}^* X_{1it} + \beta_2 {}^* X_{2it} + \beta_3 {}^* X_{3it} + \beta_4 {}^* X_{4it} + \beta_5 {}^* X_{5it}$$

Where, the dependent variable is Y_{it}, the intercept is α, slope coefficient is indicated by β. The independent variable is X_{it} in the study. The following hypothesis is tested via PR analysis:

Hypothesis: "There exists no significant impact of selected independent variables on the GDP of the EMEs"

The fixed effect panel regression model (within the fixed effect model), which adopted time demeaned transformation, is also applied four times on the same lines as listed above. Results of panel regression analysis is shown in Table 5.

The results failed to support the hypothesis that ***"There exists no significant impact of selected independent variables on the GDP of the EMEs"*** in the case of the following economic variables:

- ADR
- AFV AGR
- AT
- ACP
- CAB
- CHE
- DCF
- GCF
- LE

ADR has a significant inverse relationship with GDP of all selected countries. Higher the ADR, lower the GDP. AFV AGR significantly influences GDP of all selected countries. The regression coefficient of AFV AGR is positive, indicating significant positive impact on GDP of countries. AT and ACP is also found to significantly and positively influence GDP of all selected countries. CAB and GCF also positively influence GDP of the EMEs. However, CHE, DCF, LE negatively influence GDP .After removing three countries from the list of total EMEs, three independent variables, namely IU, IGD and MR, are also found to influence GDP of the countries significantly.

The R square of the regression method is high indicating that GDP is well explained with the help of variables mentioned above. The F stats indicate the model's statistical fitness and indicate that the regression model is statistically fit.

5. Conclusions and discussion

The study evaluates influence of different selected factors on GDP of 19 selected countries, assuming economic growth (GDP) of countries as dependent variable. Study found significant correlation between GDP and selected variables, ADR, AFV, AFV AGR, AT and ACP, BM, CHE, EMP ratio, GCF and IU. The study also found a significant influence of AFV AGR, ADR, BM, DCF, GCF, and IU on the EME's economic growth. The slope coefficient of independent variable AFV AGR is positive and significant, indicating that higher values of AFV AGR increases GDP of the EMEs. These EMEs are conventionally rich in natural resources and have fertile soil, sufficient water resources and favourable climate. They also enjoy a comparative advantage of a comparatively low-cost but qualified labour force, sophisticated infrastructure and favourable government incentives and policies. These markets are an export hub for a banquet of agricultural products like rubber, palm oil, wheat, rice, tea, fruits and vegetables etc. which has positively influenced GDP of the selected EMEs. This is corroborated by similar results from previous studies, Khan et al. (2020) and Baig & Straquadine (2014). The slope coefficient of BM and GCF is also positive and significant, indicating positive influence on GDP of EMEs. BM has a positive and significant impact on GDP, which is corroborated by findings of Nwanne (2014). An increase in BM, most inclusive method of a country's supply of money naturally pull down interest rates, attracts higher investment and encourages consumer spending to fuel economic growth. GCF has positive and significant impact on GDP due to growth of industry and manufacturing sector which employs majority of the workforce in these selected EMEs and contributes to growth of their GDP. This positive relationship is also in line with findings of Sahoo & Dash (2009). Also, there has been an increase in the manufacturing of chemicals, textiles, steelmaking and production in automobiles from free-trade zones that reduce costs of raw and semi-finished products. These initiatives lead to increase in GCF, exports and positively impact GDP of selected 19 EMEs. However, in case of DCF and IU, slope coefficient is negative and significant, indicating inverse relationship with GDP of the EMEs. DCF has a negative and significant impact on GDP of 19 selected EMEs, which is not consistent with findings of Pistoresi & Venturelli (2015). This is due to existence of inefficiencies in the lending business, lending to non-productive ventures, lack of financial inclusion and also due to existence of a large informal sector when employees evade taxes due to low wages. These countries also lack a robust governance and supervision in the financial sector which makes returns from the lending business uncertain.. IU showed a negative and significant impact. Despite increase in IU in these countries, there is disparity in internet accessibility as only urban homes have access to high speed internet whereas rural lack even basic coverage. Also, in order to reap positive benefits of IU by being able to provide IT and advisory services, these countries need to address a severe digital skills gap as much of its population does not possess basic digital skills. There are high entry barriers in the communication sector and complex regulations which makes a challenging scenario in the selected EMEs to reap benefits of digitalisation.

Results of panel regression fixed-effect model indicate that GDP is

influenced by the following factors: ADR, AFV AGR, AT, ACP, CAB, CHE, DCF, GCF and LE. ADR significantly influences GDP, though inversely. Higher the age dependency ratio, lower the GDP. A fall in ADR means that now more people are working who can support dependant population, which is consistent with findings of Peng (2005) and Oketch (2006). This indicates burden carried by working age population has reduced which has resulted in a positive and significant impact on GDP for the selected 19 EMEs. AFV AGR is found to significantly influence GDP of all the selected countries. Regression coefficient of AFV AGR is positive, indicating significant positive impact on GDP of the countries. This aligns with findings of research papers referenced earlier in this study. AT and ACP is also found to significantly and positively influence GDP of all the selected countries. CAB and GCF also positively influence GDP growth rate of EMEs. CAB has a positive and significant impact on GDP of the 19 selected EMEs, this is because of substantial trade surpluses in these countries where imports are greater than exports. These EMEs are a major manufacturing hub due to availability of cheap labour and other raw materials. In addition, economic policies are also export oriented which allows these EMEs to earn high export revenue.

However, CHE, DCF and LE negatively influence GDP. CHE has a negative impact on GDP of the 19 selected EMEs, which is not consistent with findings of Bloom et al. (2004) and Sarwar et al. (2021). This is because despite favourable context in expansion of healthcare facilities in these countries, organisational problems persists including breaks in governance and organization. Also, access to healthcare services is hindered by regional inequalities with poorer regions and lower socioeconomic population groups being at a disadvantage. These structural problems and disparities have had a negative impact. Also healthcare system in these countries suffers from underinvestment by the public sector, lack of effective training and lack of effective regulation and implementation by the public system has increased in the selected 19 EMEs from 2000 to 2017. This is in consonance to the trend around the world where life expectancy has increased however GDP has shown both a declining and an upward trend from 2000 to 2017.

In addition to the above listed factors, specifically for India, which is historically known as an agrarian economy, it should continue to build on its comparative advantage in agriculture to boost its exports in this sector. The age dependency ratio has decreased from 2000 to 2017, which has resulted in a positive impact on the GDP growth rate of India as it has been able to substantially capture and monetize the benefits of demographic dividends. To build on this, India should focus on providing more vocational and technical training to its young workforce. This will continue attracting large international conglomerates to the Indian geography further boosting the India service sector. The service sector in India has witnessed growth and along with the financial services industry, another important segment contributing to this growth is tourism. The improvement in air transport and infrastructure has been beneficial for India to grow its potential in tourist industry which has had a positive impact on its GDP.

Overall, these EMEs should build on the comparative advantage in the agricultural sector and fuel their economic growth through agricultural exports. EMEs can continue to focus on increasing its capital formation in the manufacturing sector with the aim of increasing exports to increase its GDP. As indicated by analysing DCF, more prudency should be practiced in the lending sector to avoid lending to non-productive ventures. Also, as indicated by analysing CHE, better public funding management and resource allocation should be a focus to see the positive impacts of healthcare on GDP. EMEs should continue to lower their ADR, improve their AFC AGR and CAB to further pivot on their positive growth trajectory. An overarching instrument important to ensure the successful progression of these EMEs onto their respective growth trajectory is Insurance, which is prescribed to provide protection against a possible eventuality. The EMEs should leverage insurance not only in agriculture sector but also healthcare and financial sector. These EMEs should utilize sophisticated insurances in the field of insurance life crop insurance, farmers' insurance etc to safeguard against

the seasonality of the agriculture sector. Health insurances can aid in increasing accessibility of quality health care across varied and deep geography and improve life expectancy of a country on a whole. It is particularly important for EMEs as a structural problem in these countries is lack of affordability of health care services. Financial insurance also stimulates consumption, saving and investment of funds in the economy which in turns supports economic growth. Respective governments can be instrumental in providing a conducive environment for fair treatment and protection towards the insurance bearer.

The current research paper focuses on the selected 19 EMEs from 2000-2017, the data for which is collected from World Bank. This data is not available consistently across all 19 EMEs for the 16 selected variables from 2018 onwards, which limits the ability to include the results for more recent period in order to analyse the impact of COVID-19 on the economic trajectory of the EMEs. The current research paper can be built on with more recent data being available to incorporate suggestions on future direction of economic development post COVID-19.

References

Aguiar, M., & Gopinath, G. (2007). Emerging market business cycles: The cycle is the trend. Journal of political Economy, 115(1), 69-102.

Akeju, K. F., & Olanipekun, D. B. (2014). Unemployment and economic growth in Nigeria. *Journal of Economics and Sustainable Development*, *5*(4), 138-144.

Akinsola, F. A., & Odhiambo, N. M. (2017). Inflation and economic growth: A review of the international literature. *Comparative Economic Research, 20*(3), 41–56.

Anyanwu, J. C. (2014). Factors affecting economic growth in Africa: are there any lessons from China? *African Development Review*, *26*(3), 468-493.

Baig, M. B., & Straquadine, G. S. (2014). Sustainable agriculture and rural development in the Kingdom of Saudi Arabia: implications for agricultural extension and education. In *Vulnerability of agriculture, water and fisheries to climate change* (pp. 101-116). Springer, Dordrecht.

Bakirtas, T., & Akpolat, A. G. (2018). The relationship between energy consumption, urbanization, and economic growth in new emerging-market countries. *Energy*, *147*, 110-121.

Bems, M. R., Caselli, F. G., Grigoli, F., Gruss, B., & Lian, W. (2018). *Is inflation domestic or global? Evidence from emerging markets*. IMF Working Paper WP/18/241

Bloom, D. E., Canning, D., & Sevilla, J. (2004). The effect of health on economic growth: a production function approach. *World development*, *32*(1), 1-13.

Burlando, R., & Tartaglia, A. (Eds.) (2018). Physical limits to economic growth: Perspectives of economic, social and complexity science. Routledge

Dias, J., & McDermott, J., 2006. Institutions, education, and development: the role ofentrepreneurs. *J. Dev. Econ.* 80, 299–328.

Dietrich, A., 2012. Does growth cause structural change, or is it the other wayaround? A dynamic panel data analysis for seven OECD countries. *Empir. Econ.43* (3), 915–944

Duican, E. R., & Pop, A. (2015). The implications of credit activity on economic growth in Romania. *Procedia Economics and Finance*, *30*, 195-201.

Duican, E. R., & Pop, A. (2015). The implications of credit activity on economic growth in Romania. *Procedia Economics and Finance*, *30*, 195-201.

Elango, B., & Jones, J. (2011). Drivers of insurance demand in emerging markets. *Journal of Service Science Research*, *3*(2), 185-204.

Everhart, S. S., Vazquez, J. M., & McNab, R. M. (2009). Corruption, governance, investment and growth in emerging markets. *Applied Economics*, *41*(13), 1579-1594.

Hamdaoui, M., Ayouni, S. E., & Maktouf, S. (2021). Capital account liberalization, political stability, and economic growth. *Journal of the Knowledge Economy*

Harberger, A. C. (1998). A vision of the growth process. *The American Economic Review*, *88*(1), 1-32.

Jensen, C. (2006). Foreign direct investment and economic transition: Panacea or pain killer?. *Europe-Asia*

Studies, *58*(6), 881-902.

Kaynak, E., Tatoglu, E., & Kula, V. (2005). An analysis of the factors affecting the adoption of electronic commerce by SMEs: Evidence from an emerging market. *International marketing review*.

Khan, R. E. A., & Gill, A. R. (2010). Determinants of inflation: A case of Pakistan (1970-2007). *Journal of economics*, *1*(1), 45-51.

Khan, W., Jamshed, M., & Fatima, S. (2020). Contribution of agriculture in economic growth: A case study of West Bengal (India). *Journal of Public Affairs*, *20*(2), e2031.

Kotabe, M., & Kothari, T. (2016). Emerging market multinational companies' evolutionary paths to building a competitive advantage from emerging markets to developed countries. *Journal of World Business*, *51*(5), 729-743.

Kuznets, S., & Murphy, J. T. (1966). *Modern economic growth: Rate, structure, and spread* (Vol. 2). New Haven: Yale University Press.

Luo, Y., & Zhang, H. (2016). Emerging market MNEs: Qualitative review and theoretical directions. *Journal of International Management*, *22*(4), 333-350.

Méon, P. G., Sekkat, K., & Weill, L. (2009). Institutional changes now and benefits tomorrow: How soon is tomorrow?. *Economics & Politics*, *21*(2), 319-357.

Millar, C. C., Eldomiaty, T. I., Choi, C. J., & Hilton, B. (2005). Corporate governance and institutional transparency in emerging markets. *Journal of business ethics*, *59*(1), 163-174.

Mody, A. (2004). *What is an Emerging Market?* IMF Working Paper WP/04/177

Montobbio, F., 2002. An evolutionary model of industrial growth and structuralchange. Struct. *Change Econ. Dyn*. 13, 387–414.

Ngwenyama, O., & Morawczynski, O. (2009). Factors affecting ICT expansion in emerging economies: An analysis of ICT infrastructure expansion in five Latin American countries. *Information technology for development*, *15*(4), 237-258.

Nwanne, T. F. I. (2014). Impact of broad money supply on Nigerian economic growth, *British Journal of Marketing Studies*, *3*(9), 49-56

OECD (2003). *The sources of economic growth in OECD countries*. OECD Publishing.

Oketch, M. O. (2006). Determinants of human capital formation and economic growth of African countries. *Economics of Education Review*, *25*(5), 554-564.

Palei, T. (2015). Assessing the impact of infrastructure on economic growth and global competitiveness. *Procedia Economics and Finance*, *23*, 168-175.

Peng, X. (2005). Population ageing, human capital accumulation and economic growth in China: an applied general equilibrium analysis. *Asian Population Studies*, *1*(2), 169-188.

Petrakis, P. E. (2020). Theoretical approaches to economic growth and development: An interdisciplinary perspective. Palgrave Macmillan

Pistoresi, B., & Venturelli, V. (2015). Credit, venture capital and regional economic growth. *Journal of Economics and Finance*, *39*(4), 742-761.

Purkayastha, S., Manolova, T. S., & Edelman, L. F. (2012). Diversification and performance in developed and emerging market contexts: A review of the literature. *International journal of management reviews*, *14*(1), 18-38.

Ranciere, R., Aaron T, & Frank W, (2003), "*Crises and Growth: A Reevaluation*." National Bureau of Economic Research Working Paper 10073 (Cambridge, Massachusetts: National Bureau of Economic Research).

Roztocki, N. & Weistroffer, H.R. (2008) Information Technology Investments in Emerging Economies, *Information Technology for Development*, 14, 1, 1-10.

Roztocki, N. & Weistroffer, H.R. (2011) Information Technology Success Factors and Models in Developing and Emerging Economies Information Technology for Development, 17, 3, 163-167.

Sahoo, P., & Dash, R. K. (2009). Infrastructure development and economic growth in India. *Journal of the Asia Pacific economy*, *14*(4), 351-365.

Saleth, R. M., & Dinar, A. (2000). Institutional changes in global water sector: trends, patterns, and implications. *Water Policy*, *2*(3), 175-199.

Sarwar, A., Khan, M.A., Sarwar, Z. and Khan, W. (2021), «Financial development, human capital and its impact on economic growth of EMEs", *Asian Journal of Economics and Banking*, 5 (1),86-100. https://doi.org/10.1108/AJEB-06-2020-0015

Sharma, R., Kautish, P., & Kumar, D. S. (2018). Impact of selected macroeconomic determinants on economic growth in India: An empirical study. *Vision*, *22*(4), 405-415.

Strulik, H. (2005). The role of human capital and population growth in R&D-based models of economic growth. *Review of international Economics*, *13*(1), 129-145.

Teixeira, A. A., & Queirós, A. S. (2016). Economic growth, human capital and structural change: A dynamic panel data analysis. *Research policy*, *45*(8), 1636-1648.

World Bank (2012), *Global Financial Development Report 2013: Rethinking the Role of the StateinFinance,*WorldBankPublications.https://openknowledge.worldbank.org/handle/ 10986/11848

Yao, S. (2000). How important is agriculture in China's economic growth?. *Oxford Development Studies*, *28*(1), 33-49.

Younsi, M., & Nafla, A. (2019). Financial stability, monetary policy, and economic growth: Panel evidence from developed and developing countries. *Journal of the Knowledge Economy, 10*, 238–260.

Table 1: Variables

Variable	Definition
Dependant Variable	
GDP	GDP per capita growth (annual %)
Independent Variables	
ADR	Age dependency ratio (% of working-age population)
AFV	Agriculture, forestry, and fishing, value added (% of GDP)
AFV AGR	Agriculture, forestry, and fishing, value added (annual % growth)
AT	Air transport, passengers carried
ACP	Air transport, registered carrier departures worldwide
BM	Broad money (% of GDP)
CAB	Current account balance (% of GDP)
CHE	Current health expenditure (% of GDP)
EMP ratio	Employment to population ratio, 15+, total (%) (modelled ILO estimate)
DCF	Domestic credit provided by financial sector (% of GDP)
FDI	FDI, net inflows (% of GDP)
GCF	Gross capital formation (% of GDP)
IU	Individuals using the internet (% of population)
IGD	Inflation, GDP deflator (annual %)
LE	Life expectancy at birth, total (years)
MR	Mortality rate, under-5 (per 1,000 live births)

Table 2: Results of Correlation Analysis

	GDP	ADR	AFV	AFV AGR	AT	ACP	BM	CAB	CHE	EMP Ratio	DCF	FDI	GCF	IU	IGD	LE
ADR	-0.210 **-3.961***	1														
AFV	0.280 **5.382***	0.261 **4.984***	1													
AFV AGR	0.229 **4.338***	0.025 0.457	0.057 1.048	1												
AT	0.235 **4.459***	-0.369 **-7.301***	0.168 **3.142***	0.044 0.808	1											
ACP	0.235 **4.447***	-0.369 **-7.299***	0.149 **2.770***	0.048 0.880	0.990 **126.576***	1										
BM	0.211 **3.974***	-0.449 **-9.255***	0.190 **3.560***	0.019 0.349	0.634 **15.110***	0.615 **14.371***	1									
CAB	-0.002 -0.043	-0.017 -0.319	0.203 **3.814***	0.034 0.633	0.169 **3.153***	0.180 **3.364***	0.412 **8.318***	1								
CHE	-0.308 **-5.959***	-0.052 -0.966	-0.683 **-17.203***	-0.020 -0.359	-0.183 **-3.420***	-0.152 **-2.839***	-0.274 **-5.238***	-0.357 **-7.047***	1							
EMP Ratio	0.148 **2.753***	-0.106 -1.958	0.300 **5.800***	0.045 0.826	0.285 **5.471***	0.296 **5.713***	0.329 **6.415***	0.366 **7.248***	-0.424 **-8.632***	1						
DCF	0.091 1.678	-0.424 **-8.625***	0.113 **2.092***	0.027 0.501	0.606 **14.027***	0.586 **13.310***	0.951 **56.630***	0.362 **7.151***	-0.189 **-3.538***	0.241 **4.565***	1					
FDI	0.084 1.544	-0.175 **-3.277***	-0.174 **-3.262***	0.095 1.759	-0.094 -1.733	-0.100 -1.842	-0.008 -0.140	-0.292 **-5.629***	0.181 **3.388***	-0.082 -1.513	-0.017 -0.322	1				
GCF	0.489 **10.334***	-0.355 **-6.983***	0.441 **9.046***	0.063 1.167	0.670 **16.615***	0.665 **16.394***	0.530 **11.517***	-0.078 -1.445	-0.459 **-9.516***	0.233 **4.411***	0.437 **8.936***	0.060 1.107	1			
IU	-0.192 **-3.594***	-0.379 **-7.549***	-0.496 **-10.506***	-0.012 -0.218	0.124 **2.294***	0.088 1.622	0.173 **3.237***	0.001 0.011	0.346 **6.801***	-0.056 -1.025	0.212 **3.996***	0.129 **2.393***	-0.090 -1.664	1		
IGD	-0.043 -0.790	0.136 **2.525**	0.074 1.369	0.\012 0.223	-0.123 **-2.274***	-0.105 -1.948	-0.341 **-6.670***	-0.036 -0.657	0.084 1.552	-0.176 **-3.290***	-0.316 **-6.140***	-0.082 -1.508	-0.167 **-3.112***	-0.192 **-3.598***	1	
LE	-0.025 -0.465	-0.285 **-5.479***	-0.235 **-4.443***	0.005 0.084	0.094 1.748	0.070 1.286	0.077 1.426	-0.013 -0.243	0.156 **2.904***	0.311 **6.019***	0.074 1.357	0.161 **3.013***	0.018 0.337	0.514 **11.024***	-0.126 **-2.345***	1
MR	0.032 0.586	0.513 **11.002***	0.500 **10.642***	0.013 0.242	-0.043 -0.793	-0.020 -0.360	-0.088 -1.622	-0.053 -0.973	-0.225 **-4.246***	-0.152 **-2.823***	-0.083 -1.529	-0.219 **-4.134***	0.104 1.919	-0.600 **-13.824***	0.082 1.512	-0.832 **-27.573***

Note: Each cell represents the correlation coefficient (first value) and the T-statics value (second value). T-statistics values greater than 1.96 is considered significant.

Table 3: Results of pooled regression model

Independent Variables	Pooled effect model (All countries)	Refined Pooled effect (All countries)	Pooled effect model (After removing unconventional countries)	Refined Pooled effect (After removing unconventional countries)
Intercept	7.156 (1.436)	3.864 (2.298)	3.607 (0.650)	0.392 (0.490)
ADR	-0.059 (-1.831)	-0.074 (-3.093*)	-0.070 (-1.658)	
AFV AGR	0.085 (4.865*)	0.085 (5.001*)	0.0832 (4.629*)	0.080 (4.555*)
BM	0.065 (3.918*)	0.068 (4.898*)	0.059 (3.337*)	0.061 (4.116*)
DCF	-0.071 (-4.784*)	-0.076 (-5.663*)	-0.064 (-3.907*)	-0.068 (-4.765*)
GCF	0.208 (3.981*)	0.184 (6.516*)	0.204 (3.664*)	0.216 (7.388*)
IU	-0.029 (-3.029*)	-0.026 (-3.57**)	-0.040 (-3.416*)	-0.033 (-3.430*)
AFV	0.025 (0.354)		-0.060 (-0.730)	
AT	0.000 0.542		0.000 0.658	
ACP	0.000 (-0.694)		0.000 (-0.781)	
CAB	0.007 0.150		0.007 0.145	
CHE	-0.035 (-0.220)		-0.145 (-0.812)	
EMP Ratio	-0.012 (-0.503)		0.005 0.180	
FDI	0.009 0.316		0.003 0.110	
IGD	0.000 0.007		-0.004 (-0.151)	
LE	-0.045 (-0.581)		0.020 (0.230)	
MR	-0.026 (-1.011)		-0.011 -0.380	-0.031 (-2.728*)
R Square	0.389	0.379	0.408	0.395
F Stats	12.901	33.967	11.654	30.527

Note: The cells represent regression coefficients (first value) and T statistics (second value)

Table 4: Fixed effect vs. random effects panel regression model

(Dependent variable: Tobin's q)

Model	F Test (Fixed Effects)			Hausman Test (Random Effects)		
	Test	Statistics	P-value	Test	Hausman Test (p-value)	Remarks
Fixed effect model (All countries)	Cross-section F	4.028	0.000	Cross-section random	72.194 (0.000)	Fixed effect model is finalised
	Cross-section Chi-square	72.525	0.000			
Refined Fixed effect (All countries)	Cross-section F	4.29	0.000	Cross-section random	72.287 (0.000)	Fixed effect model is finalised
	Cross-section Chi-square	71.60	0.000			
Fixed effect model (After removing unconventional countries)	Cross-section F	4.29	0.000	Cross-section random	74.086 (0.000)	Fixed effect model is finalised
	Cross-section Chi-square	64.60	0.000			
Refined Fixed effect (After removing unconventional countries)	Cross-section F	4.29	0.000	Cross-section random	74.086 (0.000)	Fixed effect model is finalised
	Cross-section Chi-square	64.60	0.000			

Table 5: Panel data regression modelling

Independent Variables	Fixed effect model (All countries)	Refined Fixed effect (All countries)	Fixed effect model (After removing unconventional countries)	Refined Fixed effect (After removing unconventional countries)
Constant	61.932 (3.217)	34.287 (3.675)	103.245 (3.862)	98.39 (3.94)
ADR	-0.067 (-0.974)	-0.123 (-2.252*)	-0.046 (-0.615)	
AFV AGR	0.078 (4.626*)	0.080 (4.946*)	0.078 (4.493*)	0.082 (4.966*)
AT	0.000 (1.898)	0.000 (2.386*)	0.000 (1.778)	0.000 (2.110*)
ACP	0.000 (-1.615)	0.000 (-2.238*)	0.000 (-1.455)	0.000 (-1.775)
CAB	0.093 (1.5110	0.111 (2.017*)	0.070 (1.074)	
CHE	-1.224 (-3.445)	-1.002 (-3.039*)	-1.341 (-3.471)	-1.426 (-3.851)

Independent Variables	Fixed effect model (All countries)	Refined Fixed effect (All countries)	Fixed effect model (After removing unconventional countries)	Refined Fixed effect (After removing unconventional countries)
DCF	-0.082 (-3.759)	-0.076 (-5.124*)	-0.087 (-3.786)	-0.105 (-6.299)
GCF	0.311 (3.742)	0.350 (4.969*)	0.288 (3.214)	0.211 (3.404)
LE	-0.756 (-2.705)	-0.308 (-2.607*)	-1.364 (-3.519)	-1.277 (-3.673)
AFV	0.114 (0.699)		0.226 (1.251)	
BM	-0.011 (-0.374)		-0.018 (-0.568)	
EMP Ratio	0.087 (1.100)		0.155 (1.732)	0.161 (1.847)
FDI	-0.007 (-0.245)		-0.017 (-0.557)	
IU	0.030 (1.498)		0.059 (2.363)	0.052 (2.642)
IGD	-0.052 (-1.912)		-0.079 (-2.613)	-0.070 (-2.456)
MR	-0.068 (-1.255)		-0.164 (-2.423)	-0.157 (-2.745)
R Square	0.506	0.496	0.528	0.521
F stats	9.226*	11.412*	9.193*	10.87*

Note: The cells represent regression coefficients (first value) and T statistics (second value)

Guidelines for contributors of the Journal

Note to the Contributors:

"The Journal" quarterly publication of Insurance Institute of India, Mumbai. It is published in the month of Jan/ April/July/Oct every year. "The Journal" covers wide range of issues related to insurance and allied areas. The Journal welcomes original contributions from both academicians and practitioners in the form of articles. Authors whose papers are published will be given honorarium and two copies of the Journal.

Guidelines to the Contributors:

1. Manuscript submitted to the Editor must be typed in MS-Word. The length of the Manuscript should be 2500-5000 words.
2. General rules for formatting text:
   i. Page size : A4 (8.27" X 11.69")
   ii. Font: Times New Roman - Normal, black
   iii. Line spacing: Double
   iv. Font size: Title - 14, Sub-titles - 12, Body- 11 Normal, Diagrams/Tables/ Charts - 11 or 10.
3. The first page of the Manuscript should contain the following information of the Author(s) –
   (i) Title of the paper
   (ii) The name
   (iii) Email address
   (iv) Photo
   (v) Brief profile - The profile will include 2 to 3 lines about author's professional qualification and experience in the field.
4. **Abstract:** A concise abstract of maximum 150 words is required. The abstract should adequately highlight the key aspects or state the objectives, methodology and the results/major conclusions of analysis. The abstract should include only text.
5. **Keywords:** Immediately after the abstract, provide around 3-6 keywords or phrases.
6. **Tables and Figures:** Diagrams, Tables and Charts cited in the text must be serially numbered and source of the same should be mentioned clearly wherever necessary. All such tables and figures should be titled accurately and all titles should be placed on the top after the number. Example: Table 1: Growth Rate of Insurance Premium in India (1997-2010).
7. **References:** all the referred material (including those from authors own publication) in the text must be appropriately cited. All references must be listed in alphabetical order and sorted chronologically and must be placed at the end of the manuscript. The authors are advised to follow American Psychological Association (APA) style in referencing.

- **Reference to a Book:** Author. (Year). *Title of book.* Location: Publisher.

  Example: Rogers, C. R. (1961). *On becoming a person.* Boston: Houghton Mifflin.

- **Reference to a Journal publication:** Author(s). (Year). Title of the article/ paper. *Journal name*, volume (issue), page number(s).

  Example: Smith, L. V. (2000). Referencing articles in APA format. *APA Format Weekly, 34(1),* 4-10.

- **Reference to a Web Source:** Author. (Date published if available; n.d.--no date—if not). Title of article. *Title of website*. Retrieved date. From URL.

  Example: Landsberger, J. (n.d.). Citing Websites. In *Study Guides and Strategies.*

Retrieved May 13, 2005, from http://www.studygs.net/citation.htm.

8. Usage of abbreviations in the text should be avoided as far as possible and if used should be appropriately expanded.

9. The Manuscript submitted must be original work and it should not have been published or submitted for publication elsewhere. The author(s) are required to submit a declaration to this extent in the format specified in Appendix 1, while submitting their Manuscript.

10. Once article is published in any particular issue (e.g. January-March issue) then next contribution of particular author will not be accepted for immediate issue of the Journal (i.e. April-June issue).

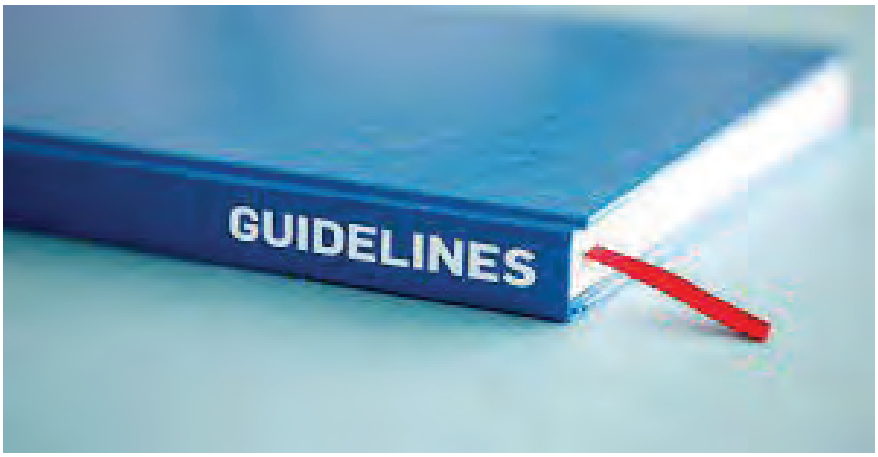
11. All the submissions would be first evaluated by the editor and then by the editorial Committee. Editorial committee may require the author to revise the manuscript as per the guidelines and policy of the Journal. The final draft is subject to editorial changes to suit the journals requirements. Editorial Committee also reserves its right to refer the article for review/ delete objectionable content/ edit without changing the main idea/ make language corrections/ not to publish/ publish with caveats as per its discretion. The Author would be duly communicated with such decisions.

12. Contribution(s) should reach the designated email address at III on or before 31st October (January-March issue), 31st January (April-June issue), 30th April (July-September issue).

13. Please send your manuscripts to <journal@iii.org.in> with subject line as "Contribution for "The Journal" January/April/July/October (Mention Year) issue.

14. All enquiries related to the submissions should be addressed only to the Editor.

15. Copyright of the published articles and papers would rest with "The Journal of Insurance Institute of India" and any further reproduction would require prior and written permission of the Editor.



Appendix I

Declaration by Authors

I/we (Full Name of the Author(s)) .... hereby declare that I/we are the author(s) of the paper titles "....." (Title of the paper), which is our original work and not the intellectual property of anyone else. I/we further declare that this paper has been submitted only to the Journal of the Insurance Institute of India and that it has not been previously published nor submitted for publication elsewhere. I/we have duly acknowledged and referenced all the sources used for this paper. I/we further authorize the editors to make necessary changes in this paper to make it suitable for publication.

I/we undertake to accept full responsibility for any misstatement regarding ownership of this article.

.....	.....
(Signature Author I)	**(Signature Author II)**
Name:	**Name:**
Date:	
Place:	

COLLEGE OF INSURANCE CALENDAR PROGRAMME FOR THE YEAR 2023-2024 (MUMBAI)

Sr. No.	Title of the Training Program	Program Start Date	Program End Date	Type of Program	Fes for Online	Fees for Residents	Fees for Non-Residents
1	Customer Service and Claims Management	19-Jun-23	20-Jun-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
2	Sales Cycle Management-Power Selling	19-Jun-23	20-Jun-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
3	Programme on Anti-Money Laundering (AML), KYC and Counter-Financing of Terrorism(CFT)	20-Jun-23	20-Jun-23	Virtual Session	₹ 1500/- + G.S.T.		
4	Insurtech and Agriculture	21-Jun-23	21-Jun-23	Virtual Session	₹ 1500/- + G.S.T.		
5	Principles of Valuation - Life	21-Jun-23	21-Jun-23	Virtual Session	₹ 1500/- + G.S.T.		
6	Personal Financial Planning and Life Insurance	22-Jun-23	23-Jun-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
7	Motor OD Insurance - Underwriting and Claims	22-Jun-23	23-Jun-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
8	Basics of Life Insurance for New Entrants in Life Insurance Companies	26-Jun-23	27-Jun-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
9	Management of Fire Insurance (Material Damage and LOP)	26-Jun-23	27-Jun-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
10	Liability Insurance Focus - Cyber & Crime	03-Jul-23	04-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
11	Analysis of Life Insurance Financials and use of Z-Score Analysis as a Financial Health Indicator	03-Jul-23	04-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
12	Engineering Insurance - Operational Policies	05-Jul-23	06-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
13	Importance of Product Mix and Channel Mix in Life Insurance	05-Jul-23	06-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
14	Workshop on Communication & Presentation Skills	06-Jul-23	07-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
15	Productivity Enhancement in Life Insurance Distribution	07-Jul-23	07-Jul-23	Classroom Session		₹ 5000/- + G.S.T.	₹ 3600/- + G.S.T.
16	Marine Cargo Insurance	07-Jul-23	07-Jul-23	Virtual Session	₹ 3000/- + G.S.T.		

Sr. No.	Title of the Training Program	Program Start Date	Program End Date	Type of Program	Fes for Online	Fees for Residents	Fees for Non-Residents
17	Wealth Accumulation through ULIPS and Guaranteed Return Products	10-Jul-23	11-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
18	International Program -Excellence in Insurance Technical - Non Life	10-Jul-23	21-Jul-23	Classroom Session		$ 1200 USD	
19	Cattle and other forms of Rural Insurance	12-Jul-23	13-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
20	Managerial Skills for Middle Level Executives	13-Jul-23	14-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
21	Digital Edge/Age in Life Insurance Marketing and Operations	13-Jul-23	14-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
22	Basics of Health Insurance and Preventive Care	17-Jul-23	18-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
23	Compliance Management of Life Insurance Companies	17-Jul-23	18-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
24	Familiarisation Programme for Board Members of Life insurance Companies	19-Jul-23	19-Jul-23	Virtual Session	₹ 3000/- + G.S.T.		
25	Workshop on Team Dynamics and Interpersonal Relationships	19-Jul-23	19-Jul-23	Classroom Session		₹ 5000/- + G.S.T.	₹ 3600/- + G.S.T.
26	Reinsurance Management Intermediate Level	20-Jul-23	21-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
27	Use of Technology in Insurance	21-Jul-23	21-Jul-23	Virtual Session	₹ 1500/- + G.S.T.		
28	Enterprise Risk Management (ERM)	24-Jul-23	25-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
29	Financial and Investment Management in Life Insurance Companies	25-Jul-23	25-Jul-23	Virtual Session	₹ 1500/- + G.S.T.		
30	Corporate Governance in Life Insurance Companies	26-Jul-23	26-Jul-23	Classroom Session		₹ 5000/- + G.S.T.	₹ 3600/- + G.S.T.
31	Challenges in Fighting Fraud – Motor Third Party Insurance	26-Jul-23	27-Jul-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
32	Regulatory Compliance for Insurance Brokers	01-Aug-23	02-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
33	Data Analytics and Data Interpretation	02-Aug-23	03-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.

Sr. No.	Title of the Training Program	Program Start Date	Program End Date	Type of Program	Fes for Online	Fees for Residents	Fees for Non-Residents
34	Communication as a Tool for Customer Engagement and Retention	03-Aug-23	03-Aug-23	Virtual Session	₹ 3000/- + G.S.T.		
35	Financial Planning and Retirement Solutions	03-Aug-23	03-Aug-23	Virtual Session	₹ 3000/- + G.S.T.		
36	Basics of Reinsurance	07-Aug-23	08-Aug-23	Virtual Session	₹ 3000/- + G.S.T.		
37	Enhancing the Productivity of Specified Persons in Bancassurance	08-Aug-23	10-Aug-23	Classroom Session		₹ 15000/- + G.S.T.	₹ 10800/- + G.S.T.
38	Challenges in Miscellaneous Insurances	10-Aug-23	11-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
39	Listing of Life Insurance Companies	10-Aug-23	11-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
40	Liability Insurance: Focus-Event and Film	11-Aug-23	11-Aug-23	Virtual Session	₹ 1500/- + G.S.T.		
41	Social Media Marketing-Tools and Techniques for Insurers	14-Aug-23	14-Aug-23	Classroom Session		₹ 5000/- + G.S.T.	₹ 3600/- + G.S.T.
42	Branding through bonding	24-Aug-23	25-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
43	Marine Cargo Claims and Fraud Management	24-Aug-23	25-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.
44	Rural and Livestock Insurance	29-Aug-23	30-Aug-23	Classroom Session		₹ 10000/- + G.S.T.	₹ 7200/- + G.S.T.

COLLEGE OF INSURANCE CALENDAR PROGRAMME FOR THE YEAR 2023-2024 (Kolkata)

Sr. No.	Title of the Training Program	Program Start Date	Program End Date	Type of Program	Fes for Online	Fees for Residents	Fees for Non-Residents
1	Life Insurance Marketing in a Digital Era	06-Jul-23	07-Jul-23	Virtual and Classroom Session	₹6000/- +18% GST	₹ 10000/- + 18% GST	₹ 7200/- + 18% GST
2	Handling Frauds & Lapses in Motor TP Claims Management	10-Jul-23	11-Jul-23	Virtual and Classroom Session	₹6000/- +18% GST	₹ 10000/- + 18% GST	₹ 7200/- + 18% GST
3	Financial Planning and Life Insurance Solutions CVT-Kolkata	19-Jul-23	19-Jul-23	Virtual Session	₹ 1500/- + 18% GST		
4	Marine Cargo Insurance Management: Underwriting and Claims	26-Jul-23	28-Jul-23	Classroom Session		₹ 15000/- + 18% GST	₹ 10800/- + 18% GST
5	Life Insurance Underwriting - New Era, New Vista	04-Aug-23	04-Aug-23	Virtual Session	₹ 1500/- + 18% GST		
6	Raising Effectiveness of Business Development Executives & Managers	11-Aug-23	11-Aug-23	Virtual and Classroom Session	₹ 3000/- + 18% GST	₹ 5000/- + 18% GST	₹ 3600/- + 18% GST
7	Annuities as a Distinct Marketing Tool	17-Aug-23	18-Aug-23	Classroom Session		₹ 10000/- + 18% GST	₹ 7200/- + 18% GST
8	Enterprise Risk Management (ERM) and Key role of the Risk owners and CRO	23-Aug-23	24-Aug-23	Virtual and Classroom Session	₹6000/- +18% GST	₹ 10000/- + 18% GST	₹ 7200/- + 18% GST

Form IV (Rule 8)

Statement about ownership and other particulars about the Journal of Insurance Institute of India to be published in the first issue every year after the last day of February.

1.	Place of Publication	Mumbai
2.	Periodicity of the Publication	Quarterly
3.	Printer's Name Nationality (a) Whether a citizen of India? (b) If a foreigner, the country of origin Address	Sneha Vikas Pednekar Indian Yes N.A. Insurance Institute of India Plot No. C-46, G-Block, Bandra Kurla Complex, Mumbai – 400051.
4.	Publisher's Name Nationality (a) Whether a citizen of India? (b) If a foreigner, the country of origin Address	Sneha Vikas Pednekar Indian Yes N.A. Insurance Institute of India Plot No. C-46, G-Block, Bandra Kurla Complex, Mumbai – 400051.
5.	Editor's Name Nationality (a) Whether a citizen of India? (b) If a foreigner, the country of origin Address	P. Jaipuria Indian Yes N.A. Insurance Institute of India Plot No. C-46, G-Block, Bandra Kurla Complex, Mumbai – 400051.
6.	Names and addresses of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total capital.	

I, Sneha Vikas Pednekar, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Date: 15th June 2023

Sd/-
SNEHA VIKAS PEDNEKAR
Signature of Publisher

RNI No. MAHENG/2013/50733 ISSN No. 2278-6759

भारतीय बीमा संस्थान
INSURANCE INSTITUTE OF INDIA

Online Lending Library

Group Corporate Membership

Insurance Institute of India introduces a new segment in Online Lending Library named **Group Corporate Membership (GCM)** especially for corporates. In GCM, various branches/depts. of a Company can utilise library facility. Corporates can make use of rich collection of books on Insurance, Risk, Reinsurance, Finance, Tax, Law, Management & many more.

Group Corporate Membership Plans:

Particulars	Plan 1	Plan 2	Plan 3
No. of Branches/Dept.	5	10	15
Refundable Security Deposite	100000	200000	300000
Annual fees	75000 + GST	125000 + GST	175000 + GST
No. of Login	5	10	15
No of Books per login	5	5	5
Issue Period	1 month	1 month	1 month
Renew Period	1 month	1 month	1 month

* GST as applicable

GCM Services

- *More than 7000 books to choose from*
- *Free office delivery & pick up of books*
- *Delivery within 48 hours from order*
- *Multiple logins for each Company*
- *Back issues of last 6 months of National/ International Journals on insurance/ Finance/management will be issued*
- *Maximum 20 books in total will be issued to Cos. at a point of time*

Contact Details

Library, Knowledge Management Centre, Insurance Institute of India
Plot No C-46, G Block, Bandra Kurla Complex, Bandra (East), Mumbai 400 051.
Email – library@iii.org.in | Website – www.insuranceinstituteofindia.com