An Empirical Study on the Aspects of Bancassurance and its Relationship with Economic Growth in India

Thesis submitted to the Degree of Doctor of Philosophy

In Commerce

by

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An Empirical Study on the Aspects of Bancassurance and its Relationship with Economic Growth in India

Structured Abstract of the Study

Research Premise

Insurance is defined as the equitable transfer of the risk of a loss, from one entity to another, in exchange for a premium and can be thought of a guaranteed small loss to prevent a large, possibly a devastating loss. Insurance is a form of risk management primarily used to hedge against the risk of a contingent loss. It is also defined as a social device to accumulate funds to meet the uncertain losses arising through a certain risk to a person insured against the risk. Crises and risks are recurring features in the lives of human beings, both rich and poor. The risk cannot be averted, but loss occurring due to a certain risk can be distributed amongst the agreed persons. Risks emanating from the Acts of God or natural calamities, death, disablement and the like; require insurance. In the absence of insurance, the advancement of present day society would have come to a standstill. Insurance is often a less trodden path because it is challenging to quantify and count its values.

Objectives

The objectives signify a holistic coverage of international insurance market and also throw focus on India's position in the international arena. A new assessment method of international insurance is studied. The significant factors that impact the growth of insurance and hence bancassurance are analyzed. The growth of insurance in India can happen along with banking sector development and accordingly the interrelation of insurance density, bancassurance with economic growth is studied.

Methodology

The study undertakes a comprehensive analysis of India's insurance sector within a global framework, focusing on the period from 2000-01 to 2023-24 with a particular focus on bancassurance model of distribution system of insurance. The BRIP model is utilized to evaluate international insurance comparison. The drivers of insurance are reviewed for Governance indicators, Economic indicators and Heath indicators. The two relationship between insurance density and economic growth is evaluated by way of Granger causality.

Findings

The BRIP model shows an improved position of India in comparison to traditional methods. As the position of India actually improved the various drivers of insurance and thereafter of bancassurance are analyzed from three different perspectives. The significant indicators depict the impact on insurance density, insurance penetration and on bancassurance. The two way relation amongst banking sector development, insurance sector development and economic growth through insurance density is established.

Social Implications

Policy makers of insurance should lay stress in the modern world on the new assessment method which reveals a different perspective than the traditional parameters. Collaboration between banks and insurance companies to provide insurance to the common people adds to the service value in the economy. With a broader market base the insurance companies should tap different sources to reach the investors. The customers should be provided with better insurance products which can draw higher customer satisfaction as well as long-term commitment to investment. Insurance being a crucial component of the economy its development leads to economic growth and hence leads to holistic development.

Key Words: Insurance, Insurance Density, Insurance Penetration, Insurance Premium, Drivers of Insurance, Bancassurance, Banking Sector Development, Insurance Sector Development,

Acknowledgement

The completion of this research would not have been possible without the support and encouragement of many individuals who have contributed in diverse ways. At the very outset, I express my heartfelt gratitude to the Almighty for the abundant blessings, which provided me with the strength, wisdom, and perseverance to undertake and complete this work. The divine grace has been my constant source of guidance and resilience throughout this journey.

During the period of working and writing my thesis, I take this opportunity to acknowledge my esteemed well-wishers who contributed to the final outcome. I express my heartfelt thanks to Rev. Fr. Dr. Dominic Savio, S.J., Principal of St. Xavier's College (Autonomous), Kolkata, and Rev. Fr. Dr. Peter Arockiam S.J., Vice-Principal of Post Graduate and Research Department of Commerce, St. Xavier's College (Autonomous), Kolkata, for inspiring me in my course of work.

The role of my PhD supervisor in this journey is truly invaluable. A supervisor plays a pivotal role in guiding the scholar, providing clarity and direction throughout the research journey. I owe my deepest gratitude to my supervisor, Dr. Samrat Roy, whose mentorship, patience, and unwavering support have been fundamental to this work. His encouragement and guidance, despite his demanding schedule, have been a source of strength throughout my research journey. From the very beginning of this academic endeavour, he has instilled determination and courage in me to pursue this exercise meticulously.

I am indebted to CA Dr. Sanjib Kumar Basu, Dean of the Post Graduate & Research Department of Commerce, for his invaluable suggestions and constant encouragement. I also wish to acknowledge the insightful feedback of Dr. Amitava Roy, Dean of the Department of Commerce (Morning) and would also like to express my sincere appreciation to Research Advisory Committee member Dr, Sreemoyee Guha Roy for her guidance and motivation. This research would not have been possible without the guidance and enlightening inputs from my Research Advisory Committee External Expert Dr. Kumarjit Mondal Associate Professor, Department of Economics (University of Calcutta).

I convey my special thanks to my parents Mr S.M.Datta & Mrs. Manika Datta for their constant encouragement and cooperation at every juncture of my research exercise. I owe my heartfelt gratitude to my beloved daughter, Sanjukta Saha , whose love, patience, and understanding have been a constant source of strength and inspiration throughout this journey. Her presence has been a reminder of resilience and purpose, motivating me to persevere through challenges and remain focused on my goals. This work is as much hers as it is mine, and I dedicate it to her with immense love and pride.

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List of Abbreviations and Acronyms

Abbreviations	Full Form
ID	INSURANCE DENSITY
IP	INSURANCE PENETRATION
BRICS Nations	BRAZIL, RUSSIA, INDIA, CHINA, SOUTH AFRICA
G7 Nations	Group of USA, UK, CANADA, FRANCE, GERMANY, ITALY, JAPAN
VA	Voice and Accountability
PS	Political Stability and Absence of Violence/Terrorism
GE	Government Effectiveness
RQ	Regulatory Quality
RL	Rule of Law
CC	Control of Corruption
LE	Life Expectancy
CHE	Current health expenditure
GDPPC	Growth Rate of GDP
INF	Inflation
RINT	Real Interest Rates
SVA	Service Value Added
GDP	Per capita economic growth; percentage change in per capita gross domestic product
LID	Life insurance density: direct domestic life insurance premium per capita in USD
NID	Non-life insurance density: direct domestic non-life premium per capita in USD
LIP	Life Insurance penetration: direct domestic life premium expressed as a percentage of GDP
NIP	Non-life insurance penetration: direct domestic non-life premium as a percentage of GDP
ln ID(Life)	Natural Logarithm of Insurance Density (life Insurance)

Abbreviations	Full Form
ln ID (Non-life)	Natural Logarithm of Insurance Density (Non-life Insurance)
ln IP (Life)	Natural Logarithm of Insurance Penetration (life Insurance)
ln IP (Non-life)	Natural Logarithm of Insurance Penetration (Non-life Insurance)
Ln BANCA_PUB(Life)	Natural logarithm of Bancassurance of public sector banks for life insurance
ln BANCA_PVT (Life)	Natural logarithm of Bancassurance of private sector banks for life insurance
PSC	Private sector credit: expressed as a percentage of GDP
SDB	Savings deposits with commercial banks (Indian and foreign banks) expressed in (₹ in crore)
NCB	Population group -wise of number of branches of scheduled commercial banks
BMS	Broad Money Supply: expressed as a percentage of gross domestic product
WB	World Bank
WDI	World Development Indicator
RBI	Reserve Bank of India

CHAPTER I

INTRODUCTION

1.1 Context of the Study

Insurance constitutes a pivotal institution in both financial and legal domains, underpinning the mechanisms of risk management and economic stability. In today's complex and uncertain economic environment, the concept of insurance has emerged as a cornerstone of financial security and risk management. It plays a critical role not only in protecting individuals and businesses against unforeseen losses but also in promoting economic stability and facilitating long-term growth. As societies become more financially sophisticated, the demand for structured risk transfer mechanisms like insurance has increased significantly.

The term 'insurance' can be defined in both financial and legal terms. According to the law, insurance is a contract between an insurer and an insured under which, in exchange for the insured's payment of a premium, the insurer undertakes to cover any financial losses the insured may incur as a result of the occurrence of a risk (Swiss Re 4/17). The growth of the insurance industry is positively correlated with economic growth. Over time, as an economy matures, the insurance industry begins to expand into the nation's numerous economic sectors. The contract of insurance in India is regulated by Common law, Indian Contract Act, and the Insurance Act. The system that redistributes the expense of unforeseen losses is the emphasis of the financial definition. The allocation of tiny premium payments obtained from all those who are suspected to those who have really suffered losses. The contractual arrangement wherein one-party consents to make up for the loss of another party is the emphasis of the legal definition. Thus, although the legal definition refers to a contract that outlines the legal rights, obligations, and duties of all parties to the agreement, the financial definition focuses on providing for the payment of losses. Life insurance which is a contract to pay a specified amount of money to the insured individuals upon the occurrence of the event covered by the policy. Life insurance is in short concerned with two hazards – one premature death and another living to old age without visible means of support. Life insurance is widely recognized as a tool that removes risk, replacing uncertainty with

certainty, and provides timely support to the family in the unfortunate event of the breadwinner's death [Sen, R. (2011)].

Bancassurance entails distribution of insurance products through banks [“Bancassurance,” (2015, May 22) *The Economic Times*]. Under this alliance, banks sell insurance products offered by a bound-up life company to their customers. As a distribution channel, bancassurance involves distributing insurance products through the branch networks of the banking institutions. These distribution channels consist of different combinations of insurance and banking pursuit.

Bancassurance being the single common factor that brings together “an insurance arm with a banking arm” and the “basic rationale behind bancassurance is to improve earnings of the bank by selling the products of one arm to the customers of the other arm [Pani, L. and Swain, S. (2013)]. Bancassurance in Europe developed out of a need to find ways to protect, grow, and diversify revenue streams as both banking and insurance industries were in a relatively developed stage of growth.”(IRDA Annual Report 2004-05)

The term Bancassurance is formed from the French words "Banque," meaning bank, and "Assurance," meaning insurance. These two words combine to create the term "Bancassurance."

Bancassurance is the practice of banks working as corporate agents on behalf of insurers to offer insurance products. This idea has been popular in the ever expanding worldwide insurance industry seeking new distribution channels. Over the last several decades, the financial sector's liberalization and deregulation have brought the banking and insurance industries together. Inter-bank competition has intensified, and banks are facing increased competition from non-banking financial institutions and the financial markets. Banking business has altered across the world as a result of global financial market integration, the development of new technology, the universalization of banking operations, and non-banking activity diversification. India's financial industry has been liberalized, exposing Indian banks to a new economic climate marked by increasing competition and new regulatory constraints. As a result, banks in India are undergoing transformations in all aspects of their operations, including their governance, nature of business, operating style, and delivery systems. As a result, every aspect of Indian banking is changing, particularly in terms of governance, business nature, operational style, and delivery systems. The

growing globalization of financial markets, as well as the integration of India's financial industry with the rest of the globe, have increased both possibilities and problems.

Previously, the Indian economy was supply-driven and operated as a seller's market. However, the situation has shifted, and we now have a buyer's market. As the economy expands, it requires not just a bigger and more active financial sector, but also the supply of increasingly complex and diverse financial goods and services. India is regarded as one of the fastest growing developing market economies, and the financial industry has expanded significantly as a result of financial reforms.

Banks generate cash by selling insurance plans. In India, the procedure started in 2000. The Insurance Regulatory and Development Authority (IRDA) established regulations governing the registration of Indian firms. The Government of India also released a notice declaring 'Insurance' a legal type of business for banks u/s 6(1) (o) of the Banking Regulation Act, 1949. There was emphasis that a bank which wanted to conduct business must seek clear permission from the Reserve Bank of India (RBI). Scheduled commercial banks were permitted to carry out insurance activity as insurance company agents for a fee with no risk undertaking. Special guidelines were prepared for constituting joint venture businesses for carrying out insurance business with risk participation.

There has been no looking back since. Historically, insurance goods were marketed only via individual agents, who accounted for a sizable portion of the retail market. With the opening of this sector to private actors, competition has increased, and the public sector has been confronted with a rush of new goods and marketing strategies. The insurance business in India has grown steadily since the market was opened up to private companies in 2000.

Insurance has been present in India since times immemorial. References to insurance-like practices are found in the ancient texts of "Manu (Manusmrithi)", "Yagnavalkya (Dharmasastra)", and "Kautilya (Arthasastra)", where there are descriptions of mutual aid and pooling of resources to support individuals in times of calamity such as fire, floods, diseases, and famine. These systems represent the rudimentary foundation of risk-sharing and collective protection—concepts that underpin modern insurance.

The earliest traces of formal insurance practices in India emerged through trade-related arrangements, such as maritime loans and carriers' contracts. These arrangements facilitated the transfer of risk among merchants and marked the beginning of insurance in commercial transactions. Insurance in India evolved significantly under the influence of colonial powers,

particularly the British. The establishment of the Oriental Life Insurance Company in Calcutta in 1818 signalled the formal entry of life insurance into the Indian market, although this company ceased operations by 1834.

Subsequent milestones included the founding of "Madras Equitable" in 1829 and several other indigenous insurers such as Bombay Mutual (1871), Oriental (1874), and Empire of India (1897). These companies operated under the framework established by the British Insurance Act of 1870. Nonetheless, foreign insurers continued to dominate the market with firms like "Albert Life Assurance," "Royal Insurance," and "London Globe Insurance" securing significant footholds in India.

In 1912, the Indian government enacted the Life Assurance Companies Act—the first piece of legislation to regulate life insurance in India. This was followed by the Indian Insurance Companies Act in 1928, which empowered the government to collect statistical data from both Indian and foreign insurers operating in India. The landmark Insurance Act of 1938 consolidated and amended earlier laws to ensure a more systematic regulation of the insurance industry, with specific provisions for oversight and policyholder protection.

Despite the legislative framework, the insurance market was fragmented, and unethical practices were reported. This led to the nationalization of the life insurance industry in 1956, through an ordinance that created the Life Insurance Corporation of India (LIC). LIC absorbed 245 Indian and foreign insurers, including 154 Indian insurance companies, 16 foreign insurers, and 75 provident societies. LIC retained a monopoly in the life insurance sector until the 1990s.

In the general insurance segment, the roots trace back to the colonial era as well, shaped by the Industrial Revolution and maritime commerce. The Insurance Act was amended in 1968 to align investment practices and define solvency margins. The Tariff Advisory Committee was also formed during this period to regulate pricing and product offerings.

The liberalization of the Indian economy in the 1990s led to the formation of IRDA in 1999. This marked a significant shift towards a competitive, multi-player insurance environment with greater regulatory oversight.

Emergence and Evolution of Bancassurance in India

The post-liberalization phase not only witnessed private and foreign entrants but also marked the rise of bancassurance—a strategic alliance between banks and insurance

companies to distribute insurance products. Bancassurance leverages the existing infrastructure, trust, and reach of banks to offer insurance products to a wider customer base.

Though it began in France in the 1980s, bancassurance formally entered India following the IRDA (Licensing of Corporate Agents) Regulations, 2002. These guidelines permitted banks to act as corporate agents, subject to regulatory compliance and training requirements. Over the years, bancassurance emerged as a preferred distribution channel owing to:

- Widespread Branch Network: Banks offer unmatched physical presence in both urban and rural India.
- Consumer Trust: Customers are more likely to purchase insurance from trusted financial institutions.
- Cross-Selling Synergies: Banks gain non-interest income, while insurers reduce customer acquisition costs.
- Financial Inclusion: Government schemes have been successfully implemented via bancassurance.

Regulatory evolution continued with the Open Architecture Model in 2016, allowing banks to tie up with multiple insurers in life, non-life, and health segments. This enhanced competition and provided greater choice to consumers. IRDA also emphasized fair practices, disclosure norms, and mandatory training to mitigate issues.

Strategic Importance and Challenges

Bancassurance now accounts for a substantial portion of new business premiums, especially in life insurance. IRDA reports suggest that for many private insurers, over 50% of new policies are sold through bancassurance (Annual Report 2022-23). The advent of digital platforms has further evolved bancassurance, enhancing user convenience and personalization of products. With increased digitization, better training, and stricter regulation, bancassurance continues to mature into a robust distribution mechanism.

The integration of bancassurance into India’s insurance ecosystem signifies a transformative shift in insurance distribution. As a channel, it holds the potential to deepen insurance penetration, enhance customer convenience, and support the broader goal of financial inclusion. With appropriate regulatory support and technological adoption, bancassurance is poised to become a cornerstone in India’s evolving insurance landscape.

This millennium marks the culmination of a 200-year journey for insurance. The reopening of insurance industry commenced in the early 1990s, and it has expanded significantly during the previous decade. In 1993, the government formed a committee chaired by R.N. Malhotra, former RBI Governor, to provide recommendations for insurance industry rehabilitation. The objective was to supplement the financial changes that had already been initiated. The group delivered the pronouncements in 1994, recommending, inter alia, that the private sector be allowed to enter the insurance market. It was indicated that international firms will be permitted to enter through floating Indian enterprises, ideally as joint ventures with Indian partners.

Following the Malhotra Committee report's recommendations, the IRDA was established in 1999 as an independent agency to govern and grow the insurance business. The IRDA became a legal entity in April 2000. The IRDA's primary objective include, promoting competition to improve customer satisfaction through expanded and improved consumer choice and reduced premium, while also safeguarding the financial sustainability of the insurance sector.

The liberalization of India’s insurance sector marked a significant turning point in its economic and regulatory landscape. A major milestone was reached in the year 2000, when IRDA formally invited applications for registration, thereby opening up the insurance market to private players, including foreign investors. This move ended the state monopoly in the insurance sector, which had existed since the nationalization of life insurance in 1956 and general insurance in 1972. Under the revised regulatory framework, foreign corporations were permitted to hold up to 26% equity in Indian insurance companies, a limit that has since been revised upward in subsequent years to promote foreign direct investment (FDI) and bring global best practices to the sector.

The IRDA, empowered under the Insurance Act of 1938, was entrusted with the responsibility of overseeing and regulating the insurance sector in India. Since its establishment as a statutory body in 1999, the IRDA has developed a comprehensive regulatory framework aimed at ensuring the orderly growth of the industry, maintaining the financial stability of insurers, and safeguarding the interests of policyholders. The Authority has issued numerous regulations covering licensing requirements, solvency margins, product structures, investment norms, consumer grievance redressal mechanisms, and the

corporate governance of insurers. These efforts have helped transform the sector from a state-dominated service to a competitive and innovation-driven industry.

The impact of liberalization and regulatory oversight has been substantial. According to the IRDA Annual Report 2010-11, the insurance sector in India experienced a robust annual growth rate of 15–20%, indicating expanding market penetration and increasing consumer interest. In addition to traditional life and general insurance products, newer offerings such as health, crop, and micro insurance have gained prominence, addressing the diverse needs of India's vast population.

The contribution of insurance services to the national economy is equally significant. As highlighted in the IRDA Annual Report 2018-19, insurance and related financial services contributed approximately 7% to India's Gross Domestic Product (GDP). This demonstrates the role of insurance not merely as a risk management tool but as an essential component of the financial services ecosystem, mobilizing long-term savings and supporting infrastructure investment through capital markets.

Over time, the government has increased the foreign investment cap in insurance to foster greater participation of global insurers. The FDI limit was raised from 26% to 49% in 2015, and further to 74% in 2021, under the condition that Indian management and control are maintained. These changes were instrumental in attracting foreign capital, enhancing technical expertise, and introducing sophisticated underwriting and risk assessment models, particularly in emerging areas such as cyber insurance and climate risk management.

In addition to FDI liberalization, the IRDA has proactively promoted financial inclusion through various initiatives. The introduction of micro insurance regulations, efforts to encourage digital distribution platforms, and the expansion of bancassurance—where banks distribute insurance products—have all helped increase the reach of insurance to underserved and remote populations. Government-sponsored schemes have contributed to enhancing social security and building a culture of insurance, especially among economically weaker sections.

Moreover, technological advancements have significantly reshaped the insurance sector. Digital transformation, especially post-2016 with the push towards a cashless economy, has enabled insurers to streamline their operations, reduce administrative costs, and provide seamless customer service. Despite these achievements, challenges remain. The sector continues to face issues such as low insurance awareness, inadequate penetration in rural

areas, lack of customized products for informal sector workers, and delays in claim settlements. Regulatory bottlenecks, market fragmentation, have occasionally eroded consumer confidence. The IRDA has acknowledged these concerns and is working towards revising product structures, enhancing transparency, and simplifying compliance for insurers and intermediaries.

In conclusion, the liberalization of India's insurance sector in 2000 catalysed a period of transformative growth supported by robust regulation, technological progress, and policy innovation. The shift from a public sector monopoly to a competitive, diverse marketplace has enhanced consumer choice, expanded market reach, and positioned the insurance industry as a key driver of financial security and economic resilience. With continued regulatory support, increased foreign investment, and sustained efforts towards digital and financial inclusion, the Indian insurance sector is poised for a new phase of sustainable and inclusive growth.

A well-developed and evolving insurance industry promotes economic growth by providing long-term money for infrastructure development while also boosting the country's risk-taking capabilities.

Bancassurance was unknown in the Indian economy prior to the enactment of the IRDA Act in 1999. Bancassurance is still in its early stages in India and is anticipated to grow rapidly in the near future, but implementing this innovative idea is one of the most difficult challenges.

Banking business has altered across the world as a result of global financial market integration, the development of new technology, the universalization of banking operations, and non-banking diversification.

The primary goal of this historic undertaking has been largely met, as later developments have demonstrated. LIC had become eminent owing to a strong agency force, which had prospered in infiltrating backward regions and spreading the importance of insurance to the people in rural areas. The Corporation's chain of offices made it easier for clients to obtain its services. Insurance became more rural and social once it was nationalised. However, over time, it became clear that there existed a significant gap between market capacity and its utilization by the industries of our country. Companies in the public sector were overstaffed and provided unsatisfactory customer service.

There was an expanding realization that the customer didn’t profit from the lack of competition in terms of greater choice and competitive price. It was found that nationalized companies' coverage was restricted, their product range was limited, and their customer support was poor. It was assumed during the 1990s that the magnitude of economic activity achieved in the middle of 1980s, and the potential thus created by the economic reforms process in different areas of the economy, could not be sustained by a government-dominated insurance industry, and that insurance penetration and market growth could only be promoted if many companies competed among themselves. This was also discovered that the aims of industrial nationalization would be achieved primarily through adequate statutory measures, eliminating the need for a state monopoly.

Aggregative risk which is the total amount of risk a portfolio is exposed to at a particular time is basically identified, analysed and evaluated individual risks.

Insurance companies pool Idiosyncratic Risk to insure customers against while keeping their own overall risk exposure relatively small, which is in counter to market risk where catastrophes such as pandemic, earthquake, and flood affect large number of people in a similar way. Due to all these changes, the barriers that formerly separated distinct financial services have dissolved. The integration of various financial services has resulted in synergies in operations and the creation of new concepts. To cover such a large consumer base, insurance firms require significant distribution strength and people. This distribution has experienced a major shift, as numerous insurance firms propose to introduce insurance goods into the lives of ordinary people by making them available at the most basic financial point, the local branch of a bank, through bancassurance. In other words, bancassurance is the practice of selling insurance products to clients in their local banks.

To gain a clearer understanding of the growth and development of the insurance sector, it is essential to examine key performance indicators such as Insurance Density (ID) and Insurance Penetration (IP). Insurance Density refers to the per capita premium, calculated as the ratio of total insurance premium to the population, indicating the average amount spent on insurance by individuals in a given country. Insurance Penetration, on the other hand, is defined as the ratio of total insurance premium to the Gross Domestic Product (GDP), reflecting the relative importance of the insurance sector in the national economy.

These indicators serve as vital tools for comparing insurance market development across countries. Among developed nations, the United States consistently records the highest

insurance density and penetration levels, signifying a mature and widespread insurance culture. In contrast, India ranks 72nd globally in terms of insurance density and 34th in insurance penetration (IRDA Annual report 2023-24). These rankings highlight the potential for further expansion and deepening of insurance coverage in the Indian market, especially in the context of rising income levels, increasing financial literacy, and regulatory reforms aimed at strengthening the sector.

India’s insurance sector has grown significantly over the past two decades, particularly after the liberalization of the industry in 2000, which allowed private players and foreign insurers to enter the market. This deregulation contributed to a marked improvement in the accessibility and diversification of insurance products. However, despite these advancements, the per capita expenditure on insurance in India remains low compared to global standards, indicating underinsurance and a large protection gap, particularly in rural and semi-urban regions.

A major reason for India's relatively low insurance density is the limited awareness and understanding of insurance among large sections of the population. Traditionally, insurance has been viewed more as a tax-saving or investment tool rather than as a risk mitigation instrument. Life insurance dominates the Indian market, while non-life segments such as health and property remain underutilized. The growing middle class, rising health care costs, and increasing climate-related risks present an urgent need to promote insurance in a more holistic manner.

Insurance Penetration also reflects the insurance sector’s role in the broader economy. A higher penetration rate often correlates with better social security mechanisms and financial resilience among citizens. Countries with higher IP typically enjoy more robust financial systems, as insurance companies act as long-term institutional investors, channelling funds into infrastructure, capital markets, and sovereign debt. In India's case, a moderate IP suggests a partially integrated insurance sector with ample room for contributing to long-term national development.

To address these disparities, various initiatives have been introduced. The IRDA has launched reforms aimed at improving distribution channels, increasing digital inclusion, and enhancing customer trust through regulatory transparency. Government-led schemes aim to extend affordable insurance to underserved populations, promoting financial inclusion. Moreover, the bancassurance model, which leverages the existing banking infrastructure to

distribute insurance products, has shown promise in increasing outreach, particularly in Tier II and Tier III cities.

Despite structural challenges, India's demographic dividend, rapid digital transformation, and growing awareness of risk post-pandemic present a unique opportunity for the insurance sector to scale. Strengthening public-private partnerships, increasing product innovation, improving claims settlement mechanisms, and integrating insurance with other welfare schemes can further deepen both insurance density and penetration.

Insurance Density and Insurance Penetration are not merely statistical metrics; they reflect the depth, accessibility, and economic role of the insurance sector in a country. India's relatively low global rankings signal a developing but high-potential insurance landscape that, if nurtured with the right policy frameworks and public-private synergy, could emerge as a key pillar of inclusive and sustainable economic growth.

1.2 Research Gap

Despite various studies undertaken in the banking sector, studies are not common in the insurance sector especially in the area of bancassurance. The insurance sector in India has witnessed a transformative journey since the liberalization of the economy and the subsequent opening up of the insurance market in 2000. One of the most notable developments has been the emergence of bancassurance—a model where banks distribute insurance products using their existing customer base and branch infrastructure. This approach has gained momentum due to its ability to offer mutual benefits: it enables banks to diversify and enhance their income streams, while insurers gain access to a wider and more trusting customer base. In the context of a developing country like India, where financial inclusion remains a national priority, bancassurance has become an increasingly important strategy for deepening insurance penetration and expanding the financial services ecosystem. While the Indian insurance market continues to grow, its insurance density and penetration levels remain significantly lower than those of developed economies. Despite the growing relevance of bancassurance in India's financial services sector, the existing body of literature remains fragmented and limited in scope. Most studies have primarily focused on the operational or regulatory aspects of bancassurance, with insufficient empirical analysis of its macroeconomic implications. There is also a lack of comparative research that positions India's insurance sector performance against global benchmarks using measurable indicators such as insurance density and penetration. Moreover, the

relationship between insurance growth, facilitated specifically through bancassurance and its potential contribution to national economic development remains underexplored**.** Few studies have examined whether bancassurance merely functions as a distribution strategy or if it plays a substantive role in driving insurance sector expansion and influencing economic indicators such as GDP growth. This research seeks to address these gaps by conducting a detailed empirical and comparative analysis, identifying the key drivers of bancassurance in India, and evaluating its economic impact.

1.3 Research Objectives

To analyze the areas where in-depth study has not yet been made in the bancassurance sector as well as the insurance sector, the following objectives were framed which showed the path for the research work.

1. To analyse empirically the relative stance of India in the context of selected worldwide insurance markets.
2. To explore the major drivers influencing the spread of bancassurance in India
3. To analyse the effect of insurance density through bancassurance on economic growth in India.

The study for this thesis is empirical. Depending on the research objectives, the data on the related variables are collected from World Development Indicators published by World Bank

1.4. Structure of the Thesis

The present thesis has seven broad chapters.

Chapter one, titled, "Introduction*"* deals with the context of the study and covers the history of the development of insurance as well as bancassurance in India. It focuses on the rationale of the study and objectives of the study.

Chapter two titled, "Review of Literature*"* attempts to provide a brief review of theoretical and empirical literature available until recent years. This chapter will highlight on the research gap in this context.

Chapter three titled "A study on relative stance of India in worldwide insurance markets-Empirical Introspection" makes an attempt to provide an empirical analysis on a new

assessment method of international insurance markets comparison which is a better judgmental method than the traditional methods of insurance comparison.

Chapter four titled," An exploration of the major drivers influencing the spread of Bancassurance in India‟ discusses about the various parameters influencing the ID, IP and thereafter bancassurance has been taken into consideration. The study has been incorporated from the point of view of three broad indicators so as to encompass a kaleidoscopic view.

Based on the findings in Chapter four, the Chapter five titled, "Role of insurance density through Bancassurance on economic growth in India- An Empirical Investigation ‟ aims to examine the two way causality or interdependence between banking sector development variables, Insurance sector development variables and economic growth. The study has been undertaken from aspects of ID as well as IP to have a holistic coverage of the same.

Chapter six titled, "Conclusion and Policy implications ‟ concludes the thesis by highlighting the summary of the findings with necessary policy implications.

CHAPTER II

REVIEW OF LITERATURE

2.1. Context of the Study

The development of insurance markets is increasingly recognized as a vital component of financial system evolution and economic growth. Insurance facilitates risk management, encourages long-term savings, and enhances financial stability by mobilizing resources and distributing risks across the economy. In both developed and developing countries, the expansion of the insurance sector is shaped by a complex interplay of economic, demographic, institutional, and technological factors. As economies transition through different stages of development, the demand for insurance services evolves accordingly, influenced by income levels, financial literacy, regulatory frameworks, and market structures. Moreover, insurance market performance is deeply embedded in the broader macroeconomic environment, responding to shifts in GDP growth, inflation, interest rates, and financial sector integration. In recent years, globalisation, digitalisation, and demographic transformations have further altered the trajectory of insurance markets, introducing new opportunities and challenges for stakeholders. These dynamics have prompted a growing body of scholarly work aimed at understanding the causal relationships, structural determinants, and policy implications associated with insurance market development. The literature encompasses a wide range of methodological approaches from theoretical models and econometric analyses to comparative case studies aimed at capturing both the universal patterns and contextual nuances of insurance growth. This literature review critically examines the evolution of research in this domain, focusing on the conceptual frameworks, empirical findings, and thematic trends that have shaped academic discourse on insurance sector development. By synthesizing insights across diverse perspectives, the review aims to highlight the factors that drive insurance market expansion and identify emerging directions for future inquiry.

In recent decades, the development of insurance markets has emerged as a focal point of academic inquiry, particularly within the context of emerging and transitional economies. Scholars have increasingly sought to understand the structural, macroeconomic, and institutional drivers that shape the evolution of insurance demand across countries at varying stages of economic maturity.

The study of insurance market development has witnessed increasing scholarly attention over the last few decades, especially in the context of emerging economies and transitional markets.

The review of literature is presented thematically. The evolution of insurance markets followed by its measurements. Then the scholarly works done on the indicators of bancassurance are carried out followed by their linkages with growth potential.

Outreville, J. F. (1990) Literature acknowledges the critical link between financial development and economic growth, with recent findings indicating a supply-leading pattern in developing nations. Property-liability insurance, integral to financial services, has expanded alongside financial institutional growth. Empirical studies examine its association with economic and financial development, focusing on demand determinants. One study specifies a demand model for property-liability insurance and tests it across 55 developing countries, emphasizing insurance's role in fostering financial deepening and economic progress, thereby reinforcing its importance in development strategies. Ward, D., & Zurbruegg, R. (2000) Research on OECD countries explores the dynamic relationship between insurance growth and economic growth through integration analysis using annual data from 1961–1996. Causality tests reveal mixed results: in some cases, insurance growth Granger causes economic growth, while in others the reverse holds. These findings underscore that the insurance-growth nexus is highly country-specific, influenced by unique national circumstances. Jawadi, F., Bruneau, C., & Sghaier, N. (2009) highlights the complexity of generalizing the insurance industry's role in economic development, suggesting that its impact varies across different economic environments and policy frameworks. This study analyzes non-life insurance premium (NLIP) dynamics and its dependence on financial markets in five countries, using underwriting cycle theory and financial pricing models as a basis. Employing nonlinear econometric approaches, particularly threshold integration via STECM, it demonstrates superior performance over LECM in modeling NLIP behavior. Findings reveal discontinuous, asymmetrical, and nonlinear adjustments in France, Japan, and the U.S., with strong evidence of insurance–financial market linkages. The results highlight regime shifts and time-varying convergence speeds, indicating complex, nonlinear adjustment mechanisms in insurance pricing. Beck, T., & Webb, I. (2003) several studies highlight that life insurance has become a vital financial service and investment tool globally. Research using data from 68 countries (1961–2000) identifies economic factors—such as inflation, income per capita, and banking

sector development—as key drivers of life insurance consumption, while education, life expectancy, and social security size show no significant association. Institutional and religious influences also play a crucial role. Browne, M. J., & Kim, K. (1993) the global service sector has expanded significantly post-World War II, with the insurance industry growing over 10% annually since 1950. During the 1980s, life insurance demand surged by over 25% annually. Studies identify key determinants of cross-country variation in life insurance demand, including dependency ratio, national income, social security spending, inflation, insurance pricing. Hwang, T., & Greenford, B. (2005) used panel data from 39 countries (1979–2007), research finds that globalisation significantly influences international life insurance market development and convergence. Economic and social dimensions show strong effects, with social globalisation playing a dominant role, while political globalisation is insignificant. Findings suggest socio-cultural factors underpin economic or political impacts, and structural breaks align with rapid global life insurance growth. Trainar, P. (2001) by their study revealed that recent financial crises have renewed attention to liquidity and the role of insurance in financial stability. While traditional Keynesian views emphasize central bank control of liquidity, the Asian and Japanese crises revealed that insurance plays a crucial role in macro- and micro-economic liquidity, despite lacking a counter-cyclical function for global demand. This study highlights insurance as a key liquidity provider, offering insights into its underexplored contribution to economic financing and market efficiency beyond conventional monetary mechanisms. Browne, M. J., & Kim, K. (1993). The global service sector expanded significantly after World War II, with insurance growing over 10% annually since 1950 and life insurance exceeding 25% growth in the mid-1980s. Research identifies key determinants of life insurance demand across countries, including dependency ratios, national income, social security spending, inflation, and insurance pricing, alongside cultural and institutional influences.

The paper by (S.Ray et al 2020) critically evaluates India's insurance sector liberalization and its impact on life and non-life segments. It examines how global diversification has enhanced capital flow, competition, and technology adoption. The study compares India's approach with that of BRICS countries and assesses the sector's role in improving an economy's performance in the World Bank's Ease of Doing Business (EODB) rankings. Findings highlight the implications of increasing foreign participation for the sector's growth and economic development. The study by Huang W (2013) evaluates the efficiency of non-life insurers in BRIC countries using multi-stage Data Envelopment Analysis (DEA),

incorporating uncontrollable variables like political and economic conditions. This method distinguishes managerial inefficiency from environmental factors. Results show that external conditions significantly influence efficiency. Additionally, firm size, profitability, solvency, and ownership form are identified as key efficiency drivers. The findings enhance understanding of efficiency dynamics within BRIC insurance markets and the role of environmental factors. Cross-frontier analysis based on DEA has been employed to examine organizational structure and efficiency in international insurance markets. Using 23,807 firm-year observations from 21 North American and EU countries, the study tested the efficient structure and expense preference hypotheses. Results support the efficient structure hypothesis in selected market segments but reject the expense preference hypothesis. These findings offer insights into cross-country competitiveness of stock and mutual insurers, aiding strategic management and regulatory decision-making in the insurance industry. Biener, C.et al (2012)

A study on frontier efficiency in the international insurance industry by M.Eling et al(2010) compares 6,462 insurers across 36 countries, covering life and non-life segments. Using multiple methodologies (DEA, SFA), it reports steady technical and cost efficiency growth from 2002 to 2006, with Denmark and Japan being most efficient and the Philippines least. Results show no consistent support for the expense preference hypothesis, as efficiency differences between mutual and stock insurers are minimal. These findings highlight significant cross-country efficiency variations and methodological robustness. A study by Fenn P., et al (2008) examines European insurance market liberalisation using stochastic frontier analysis and Flexible Fourier cost functions for life, non-life, and composite firms. Based on Eurothesys data (1995–2001) from 14 countries, it models heteroscedasticity and evaluates scale economies, firm size, and market structure on X-inefficiency. Findings indicate decreasing costs (increasing returns to scale) and reveal that larger firms and those with greater market share exhibit higher cost inefficiency. The results provide insights into efficiency determinants during European insurance market integration. Carter and Dickinson (1992) identify major obstacles to insurance trade liberalization, including foreign equity limits, local incorporation requirements, discriminatory licensing, product controls, and reinsurance restrictions. These barriers often serve protectionist aims rather than prudential needs. Later WTO and OECD studies confirm persistent behind-the-border measures—such as data localization and FDI screening—that inflate trade costs. The literature emphasizes the need for proportionate, non-discriminatory regulation aligned with

GATS to enhance competition, efficiency, and consumer welfare in global insurance markets.

A central concept that has been frequently explored in this discourse is the S-curve relationship between insurance penetration and per capita income, initially posited by Enz (2000). His pioneering work laid the foundation for understanding how insurance demand evolves with economic development. Enz proposed that the relationship between insurance penetration (measured as the ratio of insurance premiums to GDP) and income per capita exhibits an S-shaped curve, suggesting that insurance growth initially increases slowly with income, accelerates in the middle-income phase, and then tapers off as income continues to rise. While acknowledging certain methodological and contextual limitations, Enz concluded that this S-curve framework is a valuable tool for long-term strategic decision-making in insurance market analysis. His work provides a lens to anticipate future insurance demand across different stages of economic development and allows policymakers and insurers to align market strategies accordingly. Building on this foundational idea, Zheng et al. (2008) conducted a detailed analysis of the Chinese insurance market to estimate its long-term growth trajectory and market size. Employing a pooled non-linear least squares method, the researchers introduced the BRIP (Benchmark Ratio Insurance Penetration) model to assess and forecast insurance market dynamics. Their study also utilized the Market Exchange Rate (MER) approach to determine the estimated annual growth rate of China's insurance industry during the period 2006–2020. The authors emphasized the importance of considering exchange rates and purchasing power parity (PPP) in cross-country insurance comparisons and predictions, arguing that using both provides a more nuanced and accurate depiction of insurance market trends. Their analysis marked an important advancement in how macroeconomic indicators are linked to insurance demand modeling.

Extending their investigation, Zheng et al. (2009) undertook a broader comparative study of international insurance markets. Their objective was to further validate the applicability of the BRIP model across countries at various stages of economic development. By analyzing data from 95 countries spanning 1980–2007, they introduced the concept of "economically adjusted insurance growth level", enabling more meaningful cross-national comparisons. The study not only reinforced the credibility of BRIP as a benchmarking tool but also highlighted the growing relevance of China's insurance market in the global arena. This

comparative framework helped illuminate the structural and cyclical factors that differentiate mature insurance markets from those still evolving.

Further refining the understanding of China's insurance dynamics, Sun et al. (2009) examined the impact of broader economic, cultural, and demographic variables on the Chinese insurance industry. They found that insurance demand in China is positively associated with GDP, total population, urbanization rate, and the number of foreign insurers operating in the country. Conversely, market concentration—measured by the dominance of the largest insurer—was negatively correlated with insurance cost and demand. Using Granger causality tests, the authors concluded that GDP growth significantly drives insurance premium expansion, rather than the reverse. These findings underscore the macroeconomic underpinnings of insurance demand and provide important policy implications for fostering a competitive and inclusive insurance ecosystem in rapidly developing economies like China.

In a different yet related context, Masci (2012**)** explored the interplay between insurance and entrepreneurship through a theoretical lens. By incorporating the BRIP model, Masci emphasized the utility of insurance in managing entrepreneurial risk and sustaining innovation-led growth. His findings reiterated that the BRIP framework could be effectively employed not only in measuring insurance penetration but also in assessing the boundaries and potential of insurance as a risk-mitigating instrument. In doing so, the study offered a valuable bridge between macro-level insurance analysis and microeconomic entrepreneurship dynamics.

The evolution of insurance markets has also been profoundly influenced by technological advancements. In this regard, Kittipaisalsilpa (2018) examined the transformation of China's insurance industry in response to internet finance and digital financial systems. The study highlighted the increasing reliance of the insurance sector on digital infrastructure, including third-party online payment mechanisms and platform-based regulatory supervision. Importantly, the research noted that international insurance firms are showing increased interest in entering the Chinese market, provided the regulatory environment remains transparent and adaptable. The author stressed the need for the Chinese government to develop a regulatory framework that accommodates digital innovation while ensuring robust consumer protection, especially in light of the growing influence of internet finance on both domestic and foreign insurance operations.

The broader regional context of insurance market development was explored by Akhtar et al. (2019), who conducted a comparative analysis of insurance demand across emerging Asian economies and OECD countries using the BRIP model. The study investigated the impact of the 2008 global financial crisis and examined how economic and demographic factors influence insurance growth in both regions. Their findings suggest that in OECD countries, factors such as GDP per capita, financial development, urbanization, life expectancy, and education play a more significant role in determining insurance demand. In contrast, inflation and interest rates appear to exert a stronger influence in Asian economies. These results reveal the differentiated policy levers and developmental pathways available to countries depending on their stage of economic maturity and structural attributes. A more localized perspective was provided by Okonkwo and Echee (2019), who investigated the relationship between insurance penetration and economic growth in Nigeria. Their findings diverged from the general global trend, as they concluded that while total insurance premiums are positively associated with economic growth, insurance penetration itself does not significantly influence Nigeria's GDP growth. This study raises important questions about the unique characteristics of insurance markets in sub-Saharan Africa, including issues related to regulatory frameworks, consumer trust, financial literacy, and the informal economy. It suggests that insurance penetration, as a metric, may not always reflect the actual economic contribution of the insurance sector in certain developing countries.

Addressing the demographic transformation within China, Ma et al. (2021) assessed the implications of population aging and the expanding middle class on the future of China's insurance market. The study emphasized the strategic importance of life insurance, which is particularly suited to long-term savings, risk mitigation, and retirement planning. Given China's demographic shift and rapid economic ascent, the life insurance sector is expected to play a crucial role in both domestic financial markets and international insurance networks. The research utilized the BRIP framework to model the expected future size and structure of China's life insurance market, factoring in variables such as income distribution, age structure, savings behavior, and institutional development. These findings point to the increasing centrality of insurance in financial planning and capital market development in China.

Finally, Koprivica (2022) offered an insightful analysis of the Western Balkan insurance markets, applying both the S-curve model and the BRIP framework. The study concluded that although these markets are currently under-penetrated, there remains substantial

untapped growth potential. Interestingly, Koprivica argued that insurance penetration can be improved even in the absence of strong economic growth, particularly through targeted policy interventions, improved financial inclusion, and regulatory reform. This challenges the conventional assumption that economic development is a precondition for insurance market expansion and emphasizes the role of institutional quality and consumer engagement.

In summary, the literature on insurance market dynamics has evolved from static, income-based analyses to more sophisticated, multi-dimensional approaches incorporating economic, demographic, technological, and institutional variables. The BRIP model, in particular, has emerged as a versatile and robust framework for cross-national comparison and long-term insurance forecasting. Whether examining the macroeconomic forces in China, the impact of digital transformation, or the unique constraints in African and Balkan economies, these studies collectively reinforce the view that insurance is not merely a financial product but a strategic tool for economic resilience, risk sharing, and inclusive development. Understanding its growth patterns and determinants through robust models like the S-curve and BRIP offers valuable insights for policymakers, insurers, and global development agencies alike.

As financial systems evolve amidst shifting global macroeconomic landscapes, the determinants of insurance market development have become an area of intensive scholarly inquiry. Understanding the factors influencing insurance penetration and density across diverse economic contexts is imperative for framing policies that enhance financial inclusion and promote sustainable economic growth.

Over the past few decades, global insurance markets have exhibited considerable heterogeneity in growth patterns, penetration levels, and product diversification. While developed economies have witnessed relatively mature insurance markets characterized by high density and advanced regulatory oversight, emerging economies continue to grapple with under-penetration, limited outreach, and regulatory inefficiencies. This disparity has prompted researchers to examine a wide spectrum of macroeconomic, demographic, institutional, and structural variables that influence the demand and supply dynamics of insurance services. Macroeconomic indicators such as inflation, income levels, and GDP growth have been empirically tested for their relationship with insurance demand. Inflation, in particular, poses unique challenges to insurers, as it affects pricing adequacy, claim costs,

and capital reserves. Studies suggest that high or volatile inflation can undermine consumer confidence in long-term insurance products, while moderate and predictable inflation, when effectively managed, may have a neutral or even positive impact through strategic risk hedging mechanisms. Income growth, on the other hand, is positively correlated with increased demand for both life and non-life insurance, reflecting enhanced risk awareness and disposable income.

Demographic variables—including age distribution, urbanization rates, and educational attainment—have also emerged as critical determinants of insurance consumption. Young and urban populations tend to have greater exposure to formal financial systems and exhibit higher insurance uptake, whereas rural and aging populations may remain underserved due to information asymmetries and limited product relevance. Institutional factors such as governance quality, regulatory structure, political stability, and legal enforcement mechanisms have shown substantial influence on the development of insurance markets. Countries with sound governance and efficient regulatory institutions tend to foster trust in financial instruments and ensure better market conduct.

In addition, the convergence of banking and insurance services—commonly referred to as bancassurance—has reshaped the distribution landscape, particularly in regions with low traditional agency penetration. The strength of the banking sector and its synergy with insurance institutions has been positively linked to insurance proliferation in several empirical studies. Furthermore, the role of globalisation has been increasingly recognized, as trade liberalization, cross-border capital flows, and institutional convergence exert differentiated impacts on insurance activity across industrial and emerging economies.

Despite the growing body of research, gaps remain in understanding how these diverse factors interact across different institutional and economic settings. The present literature review synthesizes empirical findings from cross-country and country-specific studies that have examined the macroeconomic, demographic, regulatory, and institutional drivers of insurance market performance. It aims to highlight patterns, contradictions, and contextual nuances that shape insurance sector development globally, with particular attention to emerging markets where insurance penetration remains suboptimal despite notable economic progress.

Zouhaier (2014) investigates the relationship between insurance development and economic growth, emphasizing the sector’s role in financial stability and investment mobilization.

Using panel data from various countries, the study finds a positive correlation between insurance penetration and GDP growth, highlighting insurance as a key driver for channeling savings into productive investments. It concludes that a well-developed insurance sector enhances risk management, encourages capital accumulation, and supports long-term economic development, making it an essential component of financial system efficiency in both developed and emerging economies. Mohy ul din, S., et al (2017) by their paper analysed a long-run positive and significant relationship between life insurance, non-life insurance, trade openness, stock market development, and economic growth ($p < 0.05$). Employment rate and banking development also show significant but negative long-run relationships, while foreign direct investment is insignificant. In the short run, non-life insurance positively impacts economic growth in the USA, UK, China, India, Malaysia, and Pakistan. Life insurance shows a positive effect in India, Pakistan, and the UK, but a significant negative relationship in the USA, China, and Malaysia, indicating country-specific dynamics. By their empirical research on insurance market development and its impact on economic growth, serving as a guide for policymakers. It summarizes determinants of insurance demand and evaluates factors influencing market expansion. Additionally, it highlights key issues for insurers and policymakers to consider when formulating strategies aimed at fostering insurance market growth. The study emphasizes aligning future policies with these insights to enhance insurance penetration and contribute to broader economic development. (Hussels, S. et al 2005)

Hwang, T., & Greenford, B. (2005), in the study on China, Hong Kong, and Taiwan find a strong positive correlation between income and life insurance consumption, consistent with previous research, while education also significantly influences demand. Price and social security levels are insignificant, contrasting earlier findings. Differences in economic development explain variations, with more advanced economies showing higher consumption, though China demonstrates substantial growth potential.

Adams M. (2009) examines the historical relationship between bank lending, insurance, and economic growth in Sweden (1830–1998) using time-series data and Granger causality tests with the Toda–Yamamoto procedure to address non-stationarity. Results, accounting for regime changes, indicate that insurance Granger-caused both economic growth and bank lending. These findings suggest that insurance was a key driver of Sweden's economic development, highlighting its role as a prerequisite for growth—a lesson with significant implications for policy in contemporary developing economies.

Insurance markets foster economic growth by providing risk transfer, indemnification, and financial intermediation, facilitating efficient risk management and mobilizing savings. With rapid expansion in emerging markets due to financial liberalization, this study examines causality between insurance activity and growth. Using panel data (55 countries, 1976–2004), the findings confirm a positive, significant causal effect of both life and nonlife insurance on economic growth. Life insurance effects are mainly driven by high-income countries, while nonlife insurance impacts both high-income and developing nations. Arena, M. (2008).

Kaufmann D., et al (2010) for their policy research working paper took up long standing research on world governance indictors to study cross-country indicators of governance. The governments were selected on the basis of voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, control of corruption to study 200 countries for governance scores. The study showed that even after taking into consideration margin of error, cross -country and over-time comparison was a possibility. Vadlamannati, K (2008) a robust insurance sector is vital for India's economic development as it provides long-term funds for infrastructure and enhances risk-taking. This paper explores the contribution of insurance growth to economic development and the effects of sector reforms. Findings show a positive long-run relationship between insurance growth and economic development. However, reforms themselves show no strong link, though the pace of reforms positively influences growth. The study recommends complete deregulation and faster reforms to strengthen insurance's role in financial intermediation. A study by Park, H., (2002) examines the impact of sociocultural and socio-political factors on insurance pervasiveness, an area less explored compared to macroeconomic determinants. Using data from 37 countries, the analysis reveals that national culture, aggregate income, socio-political stability, and government regulation significantly affect insurance penetration levels. These findings enrich the understanding of insurance demand drivers and offer valuable insights for policymakers, insurers, and stakeholders in designing strategies aligned with cultural and political contexts.

Ahlgrim K. and D'Arcy S. (2012) studied the effect of deflation of high inflation on insurance industry which concluded that both had high impact on insurance industry. Even when a country is facing moderate inflation, insurance companies can manage inflation risk by advance planning. The study adopts regime switching inflation model which generated inflation forecasts which vary widely than those produced other economic scenario

generators. Elango B., Jones J. (2011) studied the drivers of insurance demand in emerging markets by taking into consideration Demographic factors, economic factors and institutional factors. This study shows that each of these factors play a role in increase in insurance demand which is measured in the study by insurance density and insurance growth rates as proxy variables. It finds that demographic variables impact more than the other drivers of insurance taken for study. Ehiogu C. et al (2018) studied effect of inflation rate on insurance penetration of Nigerian insurance industry which showed that inflation rate had a positive but insignificant effect on insurance penetration on the country as insurance business is greatly influenced by level of economy and microeconomic variables are pertinent to a broad economy at national level and positively effect a larger population than a few individuals. Yuan C. and Jiang Y. (2015) studied empirically the factors effecting demand for insurance in China for both life as well as non-life insurance. It was studied for twelve whereby it was found that level of income, development of insurance market and level of marketization were the common factors. Regional differences between the western, central and eastern China was also analysed. It was found that life insurance is mainly positively affected by level of income, development of insurance market, level of marketization. The level of income significantly positively affects the demand for non-life insurance. Eeckhoudt L., et al (2016) studied the interaction between demand for insurance and insurable assets whereby it was observed that if more of riskless assets are owned and risky assets are covered by insurance, it helps in risk reduction method. In addition to direct interpretation the study also focusses on put option to know the investors behaviour where it was shown that investors are not generally restricted to purchase of put options lower or equal to their holding of risky asset and they are not prohibited from selling the options too. Lorent B. (2010) studied the link between insurance and banking sectors whereby the study showed the effect of international comparison on life insurance demand by cross -section analysis. The study was undertaken by analysing the economic factors and financial development with banking factors for a period of ten years. For life insurance it found that with higher education level, higher age level people are generally more inclined towards insurance. Banking too plays an important role in spread of insurance and the link between bank and insurance is stronger in developed nations. Lee C and Chiu Y. (2016) through their article Globalisation and insurance activity: Evidence on the industrial and emerging countries analysed the relationship between insurance penetration and globalisation. They found that globalisation had far reaching impact on life insurance penetration than non-life insurance penetration. The study revealed that long- run coefficients of economic, social,

and political globalisation indices were positively associated which results in stimulating the total insurance market in developed nations. The results also show that different aspects of globalisation affect the economies differently as each country is at different globalisation level. It effects the industrial nations more than the emerging nations and hence the industrial nations have more impact on insurance penetration than emerging nations. Rajaram S. et al (2015) studied the financial and non-financial drivers of insurance sector in an emerging economy. The study analysed the drivers broadly to determine a causal relationship between total premium and economic growth. From the perspective of various variables, it is found that owing to various macro-economic factors and regulatory norms there has been observed a slump in growth of insurance market in India. Nexus between the insurance sector and economic growth is empirically shown by highlighting the need for developing insurance industry to proportionately impact on economic growth. Kwon Luk, S. C. Y. (2020). a study applies a revised region's multiple-streams framework to analyze health financing reforms in China, Hong Kong, Taiwan, and South Korea, along with long-term care insurance reforms in Japan and Singapore. By incorporating concepts like policy entrepreneurs, ideas, windows of opportunity, and historical institutionalism, the framework's explanatory power in understanding policy change and insurance reform dynamics is enhanced. W. Jean (2013) studied the significance of regulatory orientation, political stability and culture on consumption and price adequacy in insurance markets for fifty six developed and developing countries for a period of five years to find insurance consumption is much lower in those type of countries where there is an controlling authority to regulate insurance exclusively but it is higher in those countries where insurance is regulated by agency along with government. In the non-life insurance market there is a positive impact for accounting regulation and regulator's intervention power. Chen, P. F. ,et al(2012) researched the impact of life insurance on economic growth and the conditions influencing the insurance–growth nexus, including financial development, savings rates, interest rates, social security spending, income levels, dependency ratios, life expectancy, and regional factors. Results confirm a positive link between life insurance market development and economic growth, though the strength of this relationship varies by country context. Notably, the effect is stronger in low-income countries but weaker in middle-income economies, and stock market and life insurance development act as substitutes rather than complements. The findings provide important implications for policy and industry strategies. Christopoulos, D. K. (2004) explores the long-run relationship between financial depth and economic growth using panel unit root and integration tests, threshold integration, and dynamic panel

estimation within a vector error correction model. Fully modified OLS is applied to estimate the long-run relation for 10 developing countries. The findings strongly support the hypothesis of a single equilibrium relation between financial depth, growth, and ancillary variables, with unidirectional causality from financial depth to growth, underscoring the critical role of financial development in driving economic growth. Nejad and Kermani (2012) examined the relationship between insurance development and economic growth in Iran. Using time-series data and econometric analysis, the study found a positive and significant long-run relationship between insurance sector development and economic growth. The authors highlight that insurance promotes financial stability, mobilizes savings, and enhances investment, thereby supporting economic development. Their findings suggest that strengthening the insurance sector through policy reforms and institutional development can significantly contribute to Iran's economic growth. The study emphasizes insurance as a key financial intermediary in emerging economies.

Oke, M. O. (2012) In their study analyzed the short- and long-run relationship between economic growth and insurance sector development in Nigeria (1985–2009) using a fixed-effect model and co-integration analysis. GDP represented economic growth, while NIC, PLI, NLP, TII, and INF measured insurance growth. Granger causality indicated limited and indirect influence due to cultural and attitudinal factors. The study recommends creating a conducive environment for insurance and developing inclusive, customer-friendly policies.

This study examines the influence of globalization on insurance and reinsurance markets in Eastern Europe, focusing on Slovenia, Croatia, and Serbia from 2000 to 2008. Using analysis and synthesis methods, it explores the reflexive relationship between globalization processes and market development at micro and macro levels. Findings confirm a strong interconnection between globalization trends and market dynamics, driving steady growth and aligning with global patterns. The research highlights the complexity of transitioning socio-economic systems and emphasizes the need for continued investigation into globalization's impact on regional insurance markets. (Anđelić, G. B et al 2010).

A paper empirically examines the relationship between insurance sector development and economic growth in 10 EU transition countries from 1992 to 2007. Using a fixed-effects panel model and controlling for relevant growth determinants and endogeneity, the study finds that insurance sector development positively and significantly influences economic growth. The results hold true for life, non-life, and total insurance, highlighting the crucial

role of insurance in fostering economic development in transition economies. M.Curak et al (2009)

Ward, D., & Zurbruegg, R. (2002) study examines determinants of life insurance consumption in Asia, one of the fastest-growing markets. Findings show that civil rights provision and political stability significantly increase life insurance demand. The income effect is much stronger in Asia than in developed markets, but this gap narrows when political and legal factors are considered. The results suggest that future insurance market growth in Asia may align more closely with global trends as institutional factors improve.

P.Haissrt al (2008) explored the impact of insurance investment and premiums on GDP growth in 29 European countries from 1992 to 2005 using panel data analysis. Results indicate a positive influence of life insurance on GDP growth in EU-15 countries, Switzerland, Norway, and Iceland, while liability insurance has a greater effect in the New EU Member States. The study also highlights the significance of real interest rates and economic development in shaping the insurance-growth relationship, advocating greater attention to insurance in financial and macroeconomic policy discussions.

Webb, I. P. (2000) explored how banking and insurance services contribute to economic growth through mechanisms such as liquidity provision, risk pooling, and project monitoring. By offering these services, banks and insurers encourage savings and investment, which boosts financial activity. The intermediation of funds facilitated by these institutions enhances resource allocation efficiency, underlining their critical role in fostering economic development and supporting entrepreneurial activity within modern economies.

For nearly five decades, researchers have explored factors influencing consumer behavior in life insurance purchases. This study reviews literature on demographic and economic traits shaping life insurance demand and considers environmental issues affecting purchasing decisions. By systematically organizing prior research, the paper highlights key patterns, consistencies, and contradictions in existing findings. The analysis aims to enhance understanding of how and why individuals buy life insurance, offering a structured perspective on consumer decision-making in this financial domain. Zietz, E. N. (2003).

China’s insurance sector has grown rapidly since the open-up policy. Using data from 225 cities, this study examines determinants of insurance development, measured by premium volume, density, and penetration. Results show foreign direct investment influences

property insurance more than life insurance, while per capita GDP strongly affects all life insurance measures. Other significant factors include savings, education, telephone ownership, social welfare, and demographics for life insurance, and wages, savings, and fixed asset investment for property insurance. Regional disparities highlight varying governing factors across China. Lee. H et al (2022)

The interrelationship between financial sector development and economic growth has long been a subject of rigorous academic investigation. Within this discourse, increasing attention has been paid to the specific role of the insurance sector in fostering sustainable economic growth. Insurance markets, by facilitating risk transfer, mobilizing savings, and supporting capital market development, serve as a crucial pillar within a country's financial infrastructure. As economies expand and mature, the development of insurance markets is both a driver and a consequence of economic progress. This bidirectional relationship, however, varies across countries and regions depending on the maturity of financial institutions, regulatory environments, and macroeconomic structures. Contemporary empirical studies have explored the causal dynamics among insurance sector development, banking sector expansion, and overall economic growth. Collectively, these empirical findings illustrate a complex and evolving relationship between the insurance sector and economic growth, often mediated by banking sector performance and shaped by structural differences among economies. The consensus emerging from these studies is that a developed insurance sector not only protects against financial uncertainties but also actively contributes to macroeconomic development. As such, understanding the directionality and strength of these relationships is vital for designing effective regulatory and economic policies that leverage insurance as a catalyst for sustained economic growth.

Pradhan, R. P., Bahmani, S. (2014) a study on 18 middle-income countries (1980–2012) explores the causal links between insurance market activities, economic growth, financial depth, and government consumption. Using a panel VAR model, it identifies a strong long-run relationship among these variables. Short-run results reveal bidirectional causality between financial depth and both economic growth and government expenditure, and between insurance activities and government spending. Additionally, unidirectional causality runs from insurance to economic growth, financial depth to insurance, and government expenditure to economic growth.

Balcilar, M., et al (2018) by their paper investigated whether the roles of insurance and banking sectors in driving economic growth are complementary or substitutive, using

dynamic panel GMM estimation and bootstrap panel causality tests on data from 10 major African countries. The findings reveal that both life and non-life insurance markets complement the banking sector, and their combined effect on economic growth is positive. Additionally, the feedback hypothesis is confirmed, indicating bidirectional relationships between the insurance sector and economic growth and between the banking sector and economic growth.

Pradhan, Bahamani (2015) analysed the mutual relationship between banking sector development, insurance sector development and economic growth in G-20 countries. The results demonstrate a long -term equilibrium which is studied by using a panel vector auto -regression which showed the nature of granger causality among the variables. It was concluded that both banking sector development and economic growth granger causes insurance sector development. Pradhan, Dash et al (2017) examined the relationship between insurance market density and the economic growth in 19 Eurozone countries by Granger causality technique to analyze if granger causality is applicable between insurance market density and economic growth both way, one way or not at all. It was recognised that there is presence of both unidirectional and bi- directional causality between them. Lee, Yong (2018) investigated the effect of continent and initial GDP per capita and its impact on insurance activities and economic growth. They studied 123 countries by both static panel model and dynamic panel model to evaluate the effect. They found there is significant causal relationship between insurance development and economic growth which may help policy makers to formulate and implement effective policies on a country's insurance sector. Mdanat, Kasasbeh, and Abushaikha (2019) analyze the impact of insurance activity on per capita income in Jordan, representing the Southern Mediterranean region. Using empirical analysis, the study finds a positive and significant relationship between insurance sector development and economic growth, highlighting insurance as a driver of financial stability and investment. The authors emphasize the role of insurance in mobilizing savings, mitigating risks, and fostering economic performance, recommending policies that strengthen insurance penetration to support sustainable income growth. Das and Shome (2016) analysed the determinants of insurance penetration in India from 1992–2014, using regression analysis on factors such as inflation, FDI inflows, education, trade openness, life expectancy, labour productivity, terrorism index, and dependency ratio. Their results indicate that while many factors influence insurance penetration, only the trade openness ratio (imports + exports relative to GDP) is statistically significant. This highlights global economic integration as a key driver of India's insurance sector development. Han, L., Li,

D. et al (2010) studied using GMM models on panel data from 77 economies (1994–2005) examines the link between insurance development and economic growth, measured through insurance density. Findings indicate a positive correlation between insurance development and economic growth overall. When dividing the sample, insurance development—particularly life and non-life segments—has a significantly stronger impact in developing economies compared to developed ones, emphasizing insurance's critical role in fostering financial stability and growth in emerging markets. Liedtke, P. M. (2007). Insurance plays a vital role in modern economies beyond its measurable size, employment, or GDP contribution. It enables activities that would otherwise be impossible without risk coverage, making it a foundational element of economic development. This study explores insurance's multifaceted contributions to societal and economic progress, emphasizing its role in facilitating investments, fostering stability, and supporting growth in a modern economy. Lee C, et al (2013) used the ADF panel test, to study the stationarity of real life insurance premiums and GDP per capita across 41 countries (1979–2007). Results show mixed integration orders, highlighting limitations of traditional unit-root tests. Evidence supports a long-run equilibrium relationship between life insurance development and economic growth, with bidirectional causality in both short and long run. A 1% rise in real life premiums increases GDP by 0.06%, emphasizing insurance's contribution to economic performance, especially in high-income nations. Hammond, J. D. et al (1967) analyzed household-level determinants of life insurance premium expenditures using cross-sectional data. Key findings indicate that income, net worth, life-cycle stage, and the education and occupation of the household head significantly influence insurance spending. The research provides coefficient estimates within a linear model and calculates income elasticity of premium expenditures, offering insights into how socioeconomic and demographic factors shape insurance consumption patterns at the household level. Kjosevski (2011) studied the impact of insurance on economic growth specifically in the case of Republic of Macedonia to analyse the impact of insurance and economic growth by applying multiple -regression and control for determining the determinants of economic growth. The three variables included Life insurance, non-life insurance and Total insurance penetration to conclude that insurance sector development positively and significantly impacts economic growth.

Fortune, P. (1973) studied the expected utility hypothesis explains decision-making under uncertainty, suggesting individuals prefer the position offering the highest expected utility when outcomes are uncertain. This principle extends traditional choice theory to risky situations and forms the foundation of economic models of behavior under risk. For risk-

averse individuals, the utility-of-wealth function is concave, illustrating diminishing marginal utility of wealth and explaining the demand for risk management tools such as insurance.

Enz, R. (2000) Traditional models assume constant income elasticity for insurance demand imply unbounded growth, an unrealistic outcome. This study introduces a logistic function that models varying elasticity across economic maturity, producing an S-curve pattern. Income elasticity equals one at low and high income levels but exceeds two at intermediate stages. The model facilitates long-term insurance premium forecasts using GDP projections and enables identification of outlier countries where factors beyond GDP influence insurance demand, offering improved accuracy for policy and market analysis. Feyen, E., et al (2013) insurance sector significantly influences financial and economic development by mitigating uncertainty, fostering investment, and providing long-term financing instruments. Evidence supports a causal link between insurance development and economic growth. This study investigates determinants of life and non-life insurance premiums and total assets across 90 countries (2000–2008). Findings reveal that life insurance premiums are shaped by factors such as per capita income, demographics, income distribution, pension systems, and credit availability, while non-life insurance responds to similar and additional variables, highlighting policy-sensitive drivers.

Ching, K. S.et al (2010) explored the Malaysian life insurance sector has grown significantly, expanding pooled funds and fostering portfolio investments, suggesting a potential growth impact often overlooked in research. This study investigates the causal relationship between the life insurance sector and economic growth using Johansen integration and Granger causality tests within a VECM framework. Findings confirm a long-run relationship between life insurance assets and real GDP, alongside short-run causality from GDP to life insurance. These results highlight the sector's role as a financial intermediary facilitating long-term savings and capital investment.

2.5. Summing Up

The body of literature reviewed reflects a rich and evolving understanding of the insurance sector's role within the broader financial and economic systems. Across empirical, theoretical, and comparative frameworks, one consistent insight emerges: insurance market development is not a linear or isolated process, but rather an outcome shaped by diverse economic, institutional, and demographic forces, interacting in complex and often context-specific ways. Foundational models like the S-curve hypothesis and the BRIP framework

have provided valuable tools to conceptualize the relationship between insurance penetration and economic development. These models emphasize that insurance uptake tends to follow a predictable trajectory as income levels rise, though empirical validations suggest that structural and cyclical variations—such as regulatory quality, population demographics, market competition, and financial inclusion—can accelerate or hinder this process.

The interlinkage between insurance, banking, and economic growth is particularly salient in both developed and emerging contexts. Studies employing advanced econometric techniques, such as panel vector autoregression and Granger causality, have shown that there often exists a bidirectional or unidirectional causal relationship among these sectors. The implication is that well-functioning banking systems and sustained economic expansion can stimulate insurance demand, while at the same time, a robust insurance sector can enhance financial stability, promote savings, and support long-term investment—thereby contributing to economic development. However, these dynamics are not uniform. Regional studies reveal considerable heterogeneity. From a comparative perspective, the global financial crisis and other macroeconomic shocks have reinforced the need for resilience and adaptability within insurance systems. While some countries have leveraged insurance to mitigate economic volatility and foster entrepreneurship, others, particularly in sub-Saharan Africa and the Western Balkans, continue to face fundamental barriers to deepening insurance penetration. Notably, in such regions, insurance may not yet exhibit a strong causal impact on GDP growth, suggesting that other enabling conditions—such as legal infrastructure, trust in institutions, and consumer awareness—must be strengthened before insurance can become a significant growth catalyst.

In other words, the literature collectively underscores that while economic development facilitates insurance sector growth, targeted policy interventions, institutional reform, and technological adaptation are equally vital in unlocking the full potential of insurance in contributing to sustainable and inclusive economic progress.

CHAPTER III

A STUDY ON RELATIVE STANCE OF INDIA IN WORLDWIDE INSURANCE MARKETS- AN EMPIRICAL INTROSPECTION

3.1 Context of the Study

International Insurance comparison with respect to the growth of the industry is of prime importance in the backdrop of globalisation. For a comprehensive comparison of the international insurance market, systematic methods must be adopted as it helps not only the insurance markets but also governments to draft policies applicable to the industry. It will also provide a foundation for cooperation amongst the countries of the policies applicable to different countries as well as in negotiation in international insurance market regulations. Globally each country differs significantly from another country in terms of risk exposure, economic conditions and regulatory framework. These along with many other macro and micro factors in turn impact the level of insurance density and insurance penetration. A holistic measurement of these factors needs to be undertaken to study the inter-links between them as well as its impact. Insurance sector contributes to the development of the economy and can speed up its growth by pooling of public funds as well as being an institutional investor for the service sector. There lies a difference of opinion amongst economists regarding the growth potential of international insurance market. While some suggest a tremendous growth potential in the international insurance industry, there are literature available which suggest that there can be a decline in the international insurance industry. From the perspective of economics there are disparities in premium, economic development of a country, inflation, which calls for a comprehensive study of the international insurance market. A comparative analysis can provide for perception into the way different countries handle risk management, pricing the premium, methods to process claims faster etc. A developed nation due to its level of economic development has regulated and competitive insurance markets with a variety of insurance products. On the other hand, developing nations face various challenges and hurdles due to government policies, low insurance penetration and insurance density which is not faced by a developed nation. Insurance density and Insurance penetration are traditionally used to report on assessment of market

maturity and development for insurance sector. On macro level too, inflation, interest rates Government policies of each country play a pivotal and crucial role in determination of the level of insurance market in each country. If a structured comparative analysis of the insurance markets all over the world id undertaken that not only focusses on insurance density and insurance penetration but also economic development and the level of population, it will be insightful strategically as well as help to improve market efficiency, more coverage amongst the people and seek to promote financial resilience. The findings will be helpful to find scope for insurance market expansion and the insurance companies can diversify to other countries or expand in a particular country.

3.2 Review of Literature

A large number of studies have been conducted which address the issues related to international insurance comparison which have been compared both theoretically as well as empirically. The development of the economy of a country is highly dependent on the progress of the service sector where insurance plays a colossal role. A judgmental measurement of the various factors dependent on international insurance comparison is required for an extensive study. The existing literature focus on traditional parameters of international insurance comparison which highlight these methods. There have been studies conducted for a particular country or for few selected countries, but the focus is on the traditional measurement methods only. The traditional methods suffer from inherent disadvantages which can be weakened by adopting holistic approach in international insurance comparison. A new method or assessment of comparison is required for measurement of insurance growth levels and it's necessary to recognize the pattern of growth in international insurance markets too. Studies in recent years have focused on the new assessment need as well tried to measure by these methods which overcome the disadvantages of traditional parameters. The studies reflect the need for recognition, and emphasize that the relative growth level of insurance markets have declined for the developed nations and the market is emerging in developing nations.

Pobłocka, A. (2024) Existing literature highlights limitations in traditional measures like premium, density, and penetration for assessing insurance markets, as they overlook economic disparities and often produce skewed results (EY, 2021). To overcome these gaps, Zheng et al. (2008, 2009) introduced the Benchmark Ratio of Insurance Penetration (BRIP)

as an alternative. While BRIP enhances comparative accuracy, its dependence on benchmark selection and sensitivity to non-central distributions raises concerns. Recent evaluations emphasize the need for careful application, advocating contextual analysis to ensure reliable insights into insurance market development. Handschke, J., Rozumek, P. (2015) The S-Curve model, introduced in 2000, explains the relationship between income and insurance penetration through changing income elasticity. Zheng, Liu, and Deng developed global S-Curve parameters, later adapted regionally for comparative analysis. Studies applying this model assess insurance development stages and benchmark ratios such as BRIP, highlighting differences in penetration and convergence across markets. Research on Eastern Europe reveals varied convergence speeds, sustained growth stages, and institutional capacity to enhance penetration, even amid economic stagnation, emphasizing S-Curve's role in analyzing market dynamics and growth potential.

Zheng et al. (2008) investigated the Chinese insurance market for estimating the long -term growth and size of the Chinese market by applying the pooled non-linear least square method and then utilizing the BRIP method for studying the price index, exchange rate, growth of Chinese insurance market from 2006-2020. Zheng et al. (2009) made a comparative study of International Insurance markets, to propose that BRIP is a new method of international insurance comparison. They studied the Chinese insurance market with after comparing the worldwide markets based on BRIP. Kittipaisalsilpa (2018) examined how the Chinese insurance business might be affected by internet finance. In terms of the insurance industry's reliance on information technology, the study addresses the transformation of China's financial system. Akhtar et al. (2019) interpreted the insurance demand in emerging Asian and OECD countries with the help of BRIP model to conclude that global financial crisis had an impact on insurance growth and the economic and demographic factors show that GDP per capita, financial developments, life expectancy, urbanization and education play a higher role in OECD countries than in Asian countries. Okonkwo and Echee (2019) reviewed insurance penetration rate and economic growth rate in Nigeria to find that economic growth is not significantly related to insurance penetration in Nigeria but is related with total insurance premium. Ma et al. (2021) evaluated China's position in terms of economic growth as it makes the shift to satisfy the insurance demands of its elderly and rising middle class population. Koprivica M. (2022) observed the insurance market development based on the S-curve in the Western Balkan countries using

the BRIP model to understand the insurance market situation as insurance levels in these countries is not yet saturated and growth potential exists.

The review of literature shows that various studies have been conducted for international insurance comparison. Some distinguished articles have been published which focus on various methods to capture the growth of insurance market. Empirical research work has been conducted to provide for advanced statistical analysis of the level of insurance markets in the area of Life insurance as well as Non-Life Insurance both at international level as well as for a specific country. During the review of the same, not many works were available based on Indian market to study the insurance growth. The literature available also lacks in providing information on comparison of international insurance with other countries of the world.

3.3 Objective

For positioning of the Indian insurance market, in a global diaspora a comparison needs to be done with developed nations as well as with other emerging nations which have similar economic potentials with that of India. This calls for a comparison with G7 and BRICS nations. So the objective of the paper is to study the relative stance of Indian insurance market in comparison with selected developed (G7 countries) and developing nations (BRICS nations) using the BRIP model.

Theoretical Framework

The study tries to measure insurance coverage in different countries by a different method which not only takes into consideration the overall scale of insurance market of each country but also has an insight into population, economy and the relationship between the insurance penetration and the stage of economic development.

3.4 MODEL: Benchmark Ratio of Insurance Penetration (BRIP) Model

This objective seeks to study the model theoretically and then analyze the insurance growth model which serves as base to the model.

To introduce the term BRIP, it is the comparable “economic adjusted insurance growth level” which is utilized to compare insurance amongst countries. In other words, BRIP attempts to make a comparative analysis of country specific insurance reach and the global

average reach of the insurance at an economic level which is at par with country's GDP per capita. Hence this model may also be termed as Benchmark Adjusted Insurance Growth Level. The BRIP is presented or compared in terms of percentage. This model incorporates insurance density by adjusting the premium along with the population of the country and insurance penetration is then adjusted to insurance density by considering the country's GDP per capita. BRIP is a benchmark adjustment by taking into consideration the known fact that each country is at a different stage of economic development and hence has different level of insurance penetration. If the world's average insurance penetration at the same economic level is termed as benchmark penetration, an individual country's BRIP can be computed as:

BRIP = (Actual penetration / Benchmark penetration) × 100

where, actual penetration refers to country's actual penetration and benchmark penetration is the world's average insurance penetration at a country's own level of economy.

In the study, BRIP has been calculated by utilizing the Insurance Growth Model. The Benchmark Penetration is calculated for each country under study which is the country's average penetration at that country's economic growth level. Thereafter the actual penetration of insurance for that country is taken into consideration. The actual penetration of insurance for each country for each year is then divided by benchmark penetration to arrive at the value of BRIP.

3.5. Data and Methodology

This study is based on secondary data which is collected from different websites as per the requirement of the study. The data available in public domain has only been utilized for the study. Data has been primarily collected from websites of Swiss Re., World Bank (World Development Indicators), IRDA Annual Reports (2000-2024). The study is undertaken for the period 2000-01 to 2023-24.

Table3.1: Table showing details of data

Source	Dataset	Details	Notes / Definitions
World Bank – World Development Indicators	GDP per capita, PPP (constant 2017 international $)	International Comparison Program, World Bank; World Development Indicators database, World Bank; Eurostat–OECD PPP Programme	Measures GDP per capita using purchasing power parity, constant 2017 international dollars
Swiss Re (Sigma Reports)	Insurance Data	G7 and BRICS Nations Insurance Data (Total Gross Insurance Premium – Annual, in million US$)	Annual premiums for life and non-life insurance for selected economies
IRDA Annual Report	Bancassurance Data	Public Life Insurance, Private Life Insurance, Public Non-Life Insurance, Private Non-Life Insurance	Data for India's bancassurance market
IRDA Annual Report	Insurance Density	Ratio of premium (in US$) to total population	Reflects average insurance spending per person
IRDA Annual Report	Insurance Penetration	Ratio of premium (in US$) to GDP (in US$)	Reflects insurance premiums as a share of GDP
IRDA Annual Report	Life Insurance Data	In US$ million	India-specific data
IRDA Annual Report	Non-Life Insurance Data	In US$ million; includes general insurance and standalone health insurers	India-specific data

Traditionally insurance is measured from the point of view of Insurance Premium method, Insurance Density method and the Insurance penetration method. The insurance premium method gives an idea regarding the amount of gross premium collected in a country as compared to the income level of the population. On the other hand, insurance density method measures the per capita premium after taking into consideration the population of the country. The insurance penetration method measures the insurance premium when compared with the per capita GDP.

The insurance growth model constructed in this study is based on the logistic specification which is an improvement over other types of insurance growth model.

Three types of Insurance growth models are used viz, simple linear model, logarithmic linear model and the third is the logistic model. The application of linear or logarithmic model will pose certain limitations. The limitations can be illustrated in the following manner.

If simple linear model is considered, then an assumption is taken into consideration that insurance premium and GDP grow at the same rate which signifies that insurance penetration remains constant or it can also happen that it increases at a rate which is the square of GDP growth rate. These assumptions are not consistent with real world situations. If logarithmic linear model is utilized, it is assumed that the income elasticity of premium is constant and income elasticity of insurance penetration is also constant. Both these assumptions are again not true generally in real world but can match only at some particular stage of economic development.

Enz's (2000) logistic model, also referred to as the "S-shaped curve," illustrates how insurance penetration (premiums as a proportion of GDP) and GDP per capita are related. In economies with low incomes, the penetration of insurance rises slowly. The growth rate of insurance penetration rises with GDP per capita, indicating a rise in insurance demand. But once GDP rises to a certain point, it flattens out, a sign of market saturation. This trend demonstrates how insurance premium income elasticity changes with economic growth stages: it is lower in less developed nations, increases with income, and then decreases as the market develops.

The expression for the model on insurance growth is stated as follows:

$$IP = \frac{1}{a+bc^{X}} + \varepsilon$$

where IP denotes Insurance Penetration, X is the GDP per capita, **a, b** and **c** are the three parameters and ε is the residual. Here **'a'** represents the autonomous level of insurance penetration independent of GDP per capita. '**b'** is the coefficient attached with the parameter **'c'** which captures the impact of GDP per capita (X) on IP.

The above model has been estimated using the pooled Non-Linear Least Square estimation technique. Non-linear least square is the form of least squares analysis used to fit a set of *m* observations with a model that is non-linear in *n* unknown parameters ($m \geq n$).

3.6. Empirical Findings

By substituting the values of IP, GDP per capita and the assumption that $\mathbf{c} < 1$ (which signifies that insurance penetration will rise with the increase in GDP per capita) in the model, we get the estimated values of **a, b** and **c** as shown in table given below.

Table 3.2: Table showing estimates of 12 countries life and non-life insurance growth model

Parameter	Life Insurance	Non-Life Insurance
A	4.72	76.22
B	-.31	-.75
C	.45	.99
R^2	62.08%	57.51%
Number of Observations	276	276

Source: Author's computation based on the model for insurance growth[1]

BRIP Method is a new method of assessment which is a deviation from the traditional methods of insurance study. The ranking of the selected countries has been done to find the true position of India as compared to other selected nations.

Table 3.3: Insurance Industry rankings of selected countries in 2007, 2014 and 2020

YEAR	2007				2014				2020			
Country	**Premium**	**ID**	**IP**	**BRIP**	**Premium**	**ID**	**IP**	**BRIP**	**Premium**	**ID**	**IP**	**BRIP**
Canada	7	5	6	9	8	5	7	11	8	3	4	11
France	4	2	3	6	6	3	4	6	6	4	5	6
Germany	5	6	7	11	4	7	8	7	4	6	8	7
Italy	6	7	8	8	7	6	5	9	7	7	5	8
Japan	3	4	4	5	3	4	2	4	3	5	7	4
UK	2	1	1	3	2	1	3	5	5	2	3	5
USA	1	3	5	1	1	2	6	1	1	1	2	1
Brazil	11	10	10	10	9	9	9	8	10	10	11	9
Russia	12	9	12	12	12	11	12	12	12	11	12	12
India	9	12	9	**2**	10	12	10	**3**	9	12	10	**3**
China	8	11	11	4	5	10	11	2	2	9	9	2
S. Africa	10	8	2	7	11	8	1	10	11	8	1	10

Source: Author's computation based on new assessment of BRIP[3].

[1] IP = $\frac{1}{a+bc^X} + \varepsilon$

[2] BRIP= (Actual penetration / Benchmark penetration) × 100

The comparative table 3.3 illustrates the ranking of selected countries based on three traditional parameters of insurance sector development—Insurance Premium, Insurance Density (ID), and Insurance Penetration (IP)—for the years 2007, 2014, and 2020. Additionally, the table includes rankings computed using a more recent and comprehensive metric, the BRIP (Broad-based Ranking Index for Insurance Penetration) method, derived through a composite formula designed to address the limitations inherent in traditional indicators.

A detailed examination of the rankings reveals significant discrepancies in the relative positioning of countries depending on the assessment method used. This variance underscores the divergent narratives emerging from conventional and alternative evaluation techniques, particularly when assessing insurance markets in developing or transitional economies.

Focusing specifically on India, the country's rankings in 2007 under traditional parameters are relatively low when compared to G7 and fellow BRICS nations. India is placed 9th in terms of Insurance Premium, 12th in Insurance Density, and 9th in Insurance Penetration. These positions imply a substantial level of underinsurance or non-insurance among the Indian population, a characteristic feature of emerging insurance markets where outreach, affordability, and awareness remain key barriers to penetration.

However, when evaluated using the BRIP method, India's position improves dramatically, attaining the 2nd rank in 2007. This notable contrast illustrates that traditional indicators may not adequately capture the progress or potential of insurance sectors in populous, low-to-middle-income countries, where the size of the formal insurance market does not necessarily reflect overall systemic or infrastructural progress.

The BRIP methodology, by accounting for broader economic, demographic, and structural factors—such as population size, income distribution, GDP per capita, and insurance outreach mechanisms—offers a more holistic assessment of insurance sector development. This method is particularly effective in evaluating economies where insurance premiums may be low in absolute terms, but where the sector is expanding rapidly or undergoing significant reform.

The trend continues across the other years analysed. In both 2014 and 2020, India's rankings by traditional metrics remain comparatively modest, while its position under the BRIP method consistently places it among the top-performing nations. A similar pattern is observed across other BRICS countries, indicating that emerging economies are systematically undervalued when measured solely by traditional insurance parameters.

This disparity demonstrates the inherent limitations of conventional metrics in cross-country insurance comparisons and validates the need for alternative assessment tools like BRIP, which can better capture the dynamic and transitional nature of insurance markets in developing nations. It also points to the importance of adopting multi-dimensional evaluation frameworks for global insurance benchmarking, particularly in policy formulation, international cooperation, and market development strategies.

In conclusion, the findings from the table reinforce the argument that traditional parameters such as premium volume, density, and penetration, though valuable, offer an incomplete picture of insurance development. The BRIP index, by integrating multiple layers of contextual data, presents a more equitable and insightful basis for international insurance comparisons, especially when assessing the relative progress of nations.

The year 2014 marks a significant point of comparison in the analysis of India's insurance sector development, especially when viewed in relation to other emerging and developed economies. Based on traditional parameters—namely, Insurance Premium, Insurance Density, and Insurance Penetration—India continues to exhibit relatively modest performance, mirroring patterns observed in 2007. Specifically, India ranked 10th in Insurance Premium, 12th in Insurance Density, and 10th in Insurance Penetration among the twelve countries included in the study.

These rankings suggest that despite a decade of economic growth, regulatory reform, and insurance sector liberalisation, India's insurance industry remained underdeveloped in quantitative terms. The Insurance Premium ranking reflects the overall volume of premiums collected by insurers, which, while growing steadily, still lagged far behind the volumes reported in G7 and some BRICS nations. This is indicative not only of lower average ticket sizes for policies but also of limited market penetration, particularly in low-income and rural demographics.

The Insurance Density ranking—calculated as per capita premium expenditure—further underscores the unequal distribution of insurance access across the population. India's 12th position in this metric points to a disproportionately low level of insurance spending per individual, highlighting widespread underinsurance and the continuing prevalence of informal or non-existent risk protection mechanisms in many households.

Moreover, the Insurance Penetration ratio (premium as a percentage of GDP) being at the 10th position reveals that, even relative to its economic output, India's insurance sector was contributing less significantly to the national economy compared to its global peers. This may be attributed to a combination of factors, including low insurance awareness, lack of trust in financial institutions, regulatory bottlenecks, and infrastructural challenges in last-mile delivery of financial services.

However, a more nuanced and optimistic picture emerges when India's performance is evaluated using the BRIP (Broad-based Ranking Index for Insurance Penetration) methodology. Under the BRIP framework, which integrates both traditional quantitative indicators and structural, demographic, and economic factors (such as population size, GDP per capita, growth trajectory, and financial inclusion initiatives), India is ranked 3rd among the twelve nations in 2014.

This significant leap in position—from the bottom tier under traditional metrics to the top three under the BRIP index—highlights the fundamental limitations of conventional evaluation parameters. Traditional methods, while widely accepted, tend to disproportionately favor countries with high-income levels and mature insurance markets, thereby failing to account for the underlying progress being made in nations that are undergoing institutional reform, market expansion. The BRIP method, by contrast, captures the structural depth and inclusive potential of the insurance ecosystem. In India's case, this higher ranking reflects several progressive developments that were gaining momentum by 2014. These include:

- The rapid growth of micro insurance products targeting low-income and rural population.
- The emergence of technology-enabled insurance platforms that reduced acquisition and servicing costs.

- Continued regulatory efforts by IRDA to foster competition, transparency, and consumer protection.

Furthermore, India's improved BRIP ranking also reflects its unique demographic advantage—a large, youthful, and increasingly financially literate population, which offers considerable potential for insurance penetration in the long term. These forward-looking indicators are not captured by conventional metrics but are critical for a holistic understanding of insurance sector development in an emerging economy.

Therefore, the disparity in India's ranking across different assessment methods for the year 2014 provides compelling evidence in favour of adopting more inclusive and multidimensional frameworks, such as the BRIP index, for cross-country comparisons. It underlines the need to go beyond premium volume and per capita expenditure when evaluating the maturity and impact of insurance markets—particularly in fast-transforming, demographically diverse economies like India.

In conclusion, the analysis of India's 2014 performance demonstrates that traditional insurance indicators alone are insufficient to capture the progress and potential of insurance sectors in emerging markets. The BRIP method, by contrast, serves as a more equitable, comprehensive, and future-oriented tool for assessing insurance development. This calls for a paradigm shift in how international insurance comparisons are conducted, especially when such comparisons inform policy, regulatory benchmarking, and international development strategies.

The year 2020 represents a critical milestone in the global insurance landscape, marked by the compounded impact of the COVID-19 pandemic and the ongoing transformation of insurance systems in both developed and developing economies. In this context, India's performance in the insurance sector continues to show a disparity in ranking outcomes depending on the evaluative framework employed.

As reflected in the comparative table of selected nations, India's ranking by traditional indicators remains relatively low in 2020, following the trend observed in previous years. Specifically, when assessed by Insurance Premium, Insurance Density, and Insurance Penetration, India occupies a lower-tier position among the twelve countries under study. These metrics, which are widely used by international organizations such as Swiss Re,

OECD, and the World Bank, predominantly capture quantitative dimensions of insurance sector development—namely, the total volume of premiums written, average per capita insurance expenditure, and insurance premiums as a proportion of GDP.

India's continued low standing under these conventional metrics suggests a number of persistent challenges. These include low per capita income, limited consumer awareness, inadequate financial literacy, and a still-developing institutional framework in many parts of the country, particularly in rural and semi-urban areas. While these factors partially explain the modest growth in premium volumes and penetration rates, the traditional indicators do not fully capture the progressive policy shifts, regulatory innovations, and inclusive insurance initiatives that have taken shape in India over the past decade.

In contrast, India's performance under the BRIP method tells a significantly different story. In 2020, India ranks 3rd among the selected countries when assessed using the BRIP formula, reflecting a marked improvement in its comparative position. This elevated ranking is not merely a statistical anomaly, but rather the result of a more context-sensitive and multidimensional approach to insurance sector assessment.

The BRIP method distinguishes itself from traditional evaluation techniques by incorporating both quantitative and qualitative indicators, accounting not only for the absolute size of the insurance market but also for critical contextual variables such as:

- Population size and demographic structure, recognizing that countries with large populations may have lower density figures but still possess vast potential for insurance expansion.
- Economic development stage, acknowledging that insurance penetration tends to correlate with GDP growth and the development of financial infrastructure.
- Institutional and regulatory capacity, including the presence of pro-poor insurance schemes and national strategies aimed at increasing financial inclusion.
- Structural linkages between insurance and broader economic resilience, such as the role of insurance in disaster risk financing, agricultural protection, and public health coverage.

India's improved performance under the BRIP index in 2020 reflects several important developments. Notably, the country witnessed an acceleration in health insurance awareness

due to the COVID-19 pandemic, leading to a surge in demand for both government-sponsored and private health insurance products. Schemes expanded their coverage to millions of vulnerable households, while private insurers began to offer customised COVID-19 protection plans, indicating increased responsiveness to emergent risks.

These structural shifts, while not fully measurable through traditional indicators, are better captured through BRIP's integrated framework.

Additionally, India's economic and demographic profile—as a lower-middle-income economy with a large, youthful population—creates a unique setting where latent insurance demand can be rapidly converted into actual coverage when supported by enabling policies. The BRIP method adjusts for this potential, offering a forward-looking perspective that accounts for the trajectory of insurance sector growth, rather than its present maturity alone.

This divergence in ranking outcomes between traditional and BRIP-based methods thus underscores a fundamental issue in international insurance comparisons. The traditional approach, by over-relying on volume-based indicators, tends to undervalue the systemic efforts and long-term potential of emerging markets, particularly those undergoing structural transformations. In contrast, BRIP provides a more balanced and development-sensitive assessment, positioning countries like India more accurately in the global insurance context.

In conclusion, the evaluation of India's insurance sector performance in 2020 highlights the inadequacy of traditional indicators as standalone tools for cross-country comparison. While such indicators remain valuable for tracking market size and economic contribution, they must be supplemented by comprehensive, multidimensional frameworks like BRIP that better reflect the inclusive, dynamic, and policy-driven nature of insurance development in emerging economies. The findings from 2020 not only validate the importance of adopting such frameworks but also reaffirm India's position as a transformative player in the global insurance landscape, with the potential to set benchmarks for inclusive and scalable insurance models in the Global South.

Table3.4: Table showing Insurance industry rankings of selected countries in 2024

Country	Premium	ID	IP	BRIP
Canada	7	1	7	6
France	6	4	4	4
Germany	5	5	8	9
Italy	8	6	5	3
Japan	3	7	6	5
UK	4	3	3	2
USA	1	1	2	6
Brazil	11	10	10	11
Russia	12	11	12	12
India	9	12	9	**8**
China	2	9	10	10
South Africa	10	8	1	1

Source: Author's computation based on new assessment of BRIP[2].

The comparative table above provides an elaborate overview of the rankings of chosen nations in the international insurance market for 2024, using both conventional measures of assessment and the BRIP approach that is more sophisticated in nature. The year 2024 is especially analytically important, considering the continued aftershocks of the COVID-19 pandemic, which continued to have a volatile and uneven impact on world insurance markets. The pandemic had not only disturbed world health systems and economic stability but also profoundly impacted consumers' behavior, risk perception, and policy take-up in the insurance sector.

Though these disruptions occurred, the BRIP index was consistent and reliable indicator of insurance development within countries. Unlike traditional indicators, which are volume or income based, the BRIP method accounts for demographic, economic, and structural factors so that contexts and development levels will be taken into account when assessing insurance markets, no matter where or when in the world. This is an enormous advantage in times of global uncertainty. For instance, China has a high rank in traditional sectors such as total

[3] BRIP= (Actual penetration / Benchmark penetration) × 100

premiums and insurance density. However, in BRIP, their rank was much lower. This placement indicates that although the size of the insurance market remained large in the absolute sense, relative market development, adjusted for the population and economic placement of the country, indicated a degree of inefficiency or saturation in the market or more inequality in the distribution of insurance. This incongruence demonstrates the importance of multidimensional evaluations to uncover insurance market features that are obscured by premium volume.

On the other hand, India’s insurance sector was more stable and resilient in the post-pandemic period. In 2024, India's BRIP rank was relatively high, indicating that the country maintain the momentum of building insurance inclusion, building respect for technology and concurrent development of public insurance institutions. India's traditional ranks, based on premiums, density and penetration continue to lag behind developed economies, the BRIP evaluations suggested a move forward in terms of structural and institutional change including, a growth in government-backed micro insurance schemes, the roll out of digital insurance, and an increase in insurance literacy for rural and urban poor sections of society.

Contrary to this, India's insurance industry showed a more robust and stable performance throughout the post-pandemic period. The nation's BRIP score in 2024 was comparatively higher, indicating ongoing efforts to expand insurance inclusion, harmonize digital technologies, and enhance public insurance infrastructure. Although classic India rankings—premium, density, and penetration—remained behind developed countries, the BRIP assessment noted the progress in structural and institutional aspects. These encompass the sustained development of government-supported micro insurance initiatives, deepening of digital insurance platforms, and growing insurance literacy among rural and urban poor populations.

The most notable is that, in the environment of the global pandemic aftermath, the insurance market in India showed a lesser extent of exposure than in many high-income economies. This might be due to the relative lower level of dependence on private health insurance in India, the greater role played by the public insurance sector, and targeted schemes that offered a social safety net to vulnerable sections. These aspects, mainly excluded by conventional measures, were well described by the BRIP framework.

Conversely, the United States—a nation that perennially excels on international insurance rankings using conventional criteria—kept its leading position in 2024 by premium volume,

density, and penetration. But its BRIP ranking was decidedly weaker. This contrast indicates that the conventional pride of the American insurance system—market size and sophistication—perhaps does not fully capture inclusivity, affordability, or demographic penetration. The lower U.S. BRIP score suggests possible gaps in coverage across populations, higher premium prices, and growing inequity in access to risk protection—issues that deserve closer examination by policymakers and insurers alike. Taken together, these findings provide compelling evidence that the BRIP method offers a credible and necessary alternative to traditional frameworks of insurance sector comparison. As the global economy becomes more integrated and as emerging markets take on greater significance in global financial systems, it is imperative that international insurance evaluations adopt methods that are sensitive to development stages, structural transformations, and population dynamics.

Furthermore, the results from 2024 affirm the need for the institutional recognition and wider adoption of BRIP in global insurance reporting and policymaking. In particular, the method's ability to highlight growth potential in developing nations, as opposed to simply measuring market maturity in developed ones, provides a more forward-looking and equitable basis for comparison. This shift in perspective is essential not only for academic research but also for strategic planning by global insurers, investment analysts, and national regulatory bodies.

In conclusion, the insurance sector in 2024 revealed structural asymmetries that traditional metrics alone cannot explain. The BRIP method addresses these gaps by offering a composite, economically adjusted view of insurance sector growth and inclusivity. For countries like India, this method better captures the trajectory of development and institutional innovation. For developed nations like the U.S., it draws attention to areas where systemic reforms may be needed. As such, there is a clear imperative to further explore the drivers of BRIP performance, particularly in developing countries, and to examine how policy frameworks, financial inclusion strategies, and technological interventions can sustain and enhance insurance sector growth in the years ahead.

3.7. **Summing Up**

The adoption of the BRIP as a new paradigm for international insurance comparison offers a transformative approach to assessing the growth and development of insurance markets across both developed and developing economies. By shifting focus away from purely

quantitative, traditional indicators—such as Insurance Premium, Density, and Penetration—and instead evaluating countries on an economically adjusted and demographically contextual basis, the BRIP method presents a more holistic and forward-looking framework for international insurance analysis.

This study aims to explore and validate BRIP as an alternative tool for global insurance comparison has yielded several notable conclusions and inferences:

1. Insurance as an Economic Driver

It has been consistently reaffirmed throughout this research that insurance is not merely a financial service, but a critical enabler of economic development. The growth of the insurance sector contributes to macroeconomic stability, capital formation, social security, and household resilience. Therefore, any meaningful study of insurance performance must be closely integrated with the broader economic context in which it operates. The BRIP framework aligns with this principle by embedding economic indicators such as GDP per capita, population structure, and development stage into its evaluative model.

2. Divergent Growth Patterns: Developed vs. Developing Economies

One of the most significant findings of this study is the emerging pattern of stagnation in developed markets and momentum in developing ones. While traditional indicators continue to depict developed economies as global leaders in insurance, the BRIP-adjusted rankings reveal a declining trajectory of insurance growth in many of these countries over the study period. This suggests that mature markets may have approached saturation or face structural inefficiencies in terms of outreach, inclusiveness, and affordability.

In contrast, developing countries particularly those in the BRICS nations are exhibiting strong, sustained growth, supported by favourable demographics, increasing awareness, digital penetration, and policy support. The BRIP framework brings this to light by recognizing relative progress, rather than absolute premium volume alone. This has significant implications for international insurers and policy planners, who must recalibrate their strategic focus toward emerging markets that offer untapped potential and rising insurance demand.

3. Strategic Opportunities in the BRICS Economies

Among the BRICS nations, the insurance sector has demonstrated accelerated growth and attained a relatively high momentum in recent years. These markets are rapidly evolving in

terms of product diversity, distribution channels, and technological innovation. The study underscores the importance for both domestic and global insurance firms to strategically engage with these markets, rather than focusing exclusively on developed economies. By leveraging the insights provided by BRIP, insurers can identify growth corridors and underserved customer segments in these countries more accurately.

4. Re-evaluating India's Insurance Performance

The application of the BRIP index to India yields a particularly insightful outcome. Unlike the dismal image often portrayed by traditional indicators, BRIP reveals a more optimistic and accurate picture of India's insurance landscape. India demonstrates a pattern of steady and sustainable growth, driven by government-backed schemes, digital inclusion initiatives, regulatory reforms, and the rise of micro insurance. Traditional metrics fail to reflect these systemic transformations and may thus mislead insurers and investors about the actual market potential.

Moreover, policy decisions based solely on traditional rankings may lead to misallocation of resources and the underutilization of government efforts to improve insurance outreach. It is therefore essential for Indian policymakers to adopt and integrate BRIP-like methodologies into official reporting and regulatory assessments. Such alignment would promote data-driven, development-oriented policymaking, more reflective of the nation's demographic and economic complexities.

5. Limitations of Traditional Indicators

Traditional insurance measurement frameworks suffer from several inherent limitations. They offer a static, one-dimensional perspective that fails to accommodate structural changes, qualitative progress, or evolving consumption patterns. These frameworks often disproportionately reward mature, high-income markets while penalizing countries that are making relative strides in coverage, access, and regulatory development. This can distort the global understanding of insurance evolution and lead to strategic oversights by multinational insurers, rating agencies, and even governments.

6. Policy and Strategic Implications

In an increasingly globalized and interconnected financial system, the need for accurate, inclusive, and development-adjusted insurance assessment tools is more critical than ever. The BRIP method offers a credible alternative, enabling more realistic and actionable

comparisons between nations. Countries that embrace such frameworks will be better positioned to design long-term strategies for insurance expansion, financial inclusion, and risk protection.

For governments, BRIP-informed policy can help in:

- Targeting underserved regions more effectively.
- Designing subsidies and incentives based on structural needs rather than output indicators.
- Benchmarking progress across time and international peers with greater accuracy.

For the insurance industry, this approach allows for:

- More accurate market segmentation.
- Realistic growth projections.
- Better alignment between products and socioeconomic conditions.

Given the improved picture of India's insurance sector under the BRIP framework, a deeper exploration into the drivers of this growth is warranted. One critical area of interest emerging from this study is the role of bancassurance—the collaboration between banks and insurance firms—as a delivery channel in expanding insurance access, particularly in tier-2 and tier-3 cities. Understanding the role of bancassurance in the context of BRIP may provide valuable insights into scalable and replicable models of insurance outreach in developing economies.

In summary, this study affirms that the BRIP method presents a more equitable, inclusive, and economically grounded model for international insurance comparison. By aligning insurance assessment with demographic and economic realities, BRIP offers a more meaningful reflection of both current capacity and future potential. Its widespread adoption could mark a paradigm shift in how insurance markets are evaluated and understood—from a static, volume-centric model to one that embraces progressiveness, inclusivity, and sustainability. For countries like India, this marks not only a moment of recognition but also a call to further action in refining, scaling, and supporting the momentum of insurance sector growth. From the study of the objective it is observed that the position of India is not as gloomy as has been reflected in past years. This inference definitely motivates to study the various drivers of insurance industry in India as well as specifically bancassurance.

CHAPTER IV
AN EXPLORATION OF THE MAJOR DRIVERS INFLUENCING THE SPREAD OF BANCASSURANCE IN INDIA.

4.1 Context of the Study

The stance of India in global arena is quite impressive and there is a lot of scope for augmenting insurance penetration (IP) as well as insurance density (ID). The population in India is yet underinsured or not at all insured in various programs of the insurance industry. In the non-life insurance sector, people of India are yet in a nascent stage and there is a huge scope for the insurance companies to tap these areas. Both ID and IP of India for life and non -life insurance data show that Indians can be insured under various schemes and the reach of insurance can be widespread. The data for IP for both life and non-life for 2023-24 is as low as 2.8% and 1%. The same for ID is 70 US$ and 25US$. This data proves beyond doubt regarding the under insurance or uninsured population of our country. Although life insurance accounts for 80% of the total premium generated from new business, it can be improved. The insurance companies can tap the rural as well as the urban markets with a variety of insurance products to meet the needs of Indian population. Generally, it is observed that the earning member of the family even if insured is not adequately insured or in other words is underinsured. The other members especially the women and the children population are left out of the purview of insurance. This is more rampant in the rural areas than the urban zones. Although there are various ways of reaching out to the people of the country for promoting insurance, bancassurance has created niche for itself. The banks in our country have reached most of the remote and backward areas. The reach of insurance to such regions has not yet been satisfactory. The lives of rural people along with their property must be insured. Medical expenses being on a rise for a long time, demand health insurance coverage (non-life insurance). Insurance companies can utilize the data available with banks to reach out to rural people with insurance programs. They can be designed to suit the needs of those areas. The insurance companies can also utilize the infrastructure of the banks to promote the insurance products amongst the rural people. This union can help the insurance companies as the account holders of the bank can get the insurance policy information from their banks itself. It helps in gaining confidence of the prospective customers of the

insurance products. The banks on the other hand benefit from the insurance companies by charging a commission on the subscribed insurance products. This adds to the earnings of the bank. This method of bancassurance can be applied to all the areas of the country which is a very productive way of tapping the insurance market. The authorities of the insurance companies can provide various training programs for promoting bancassurance.

The various factors which may have an influence on ID, IP and bancassurance should be analyzed to have a better overview of the insurance market.

To explore the major drivers influencing the spread of bancassurance in India, the position of Indian insurance industry needs to be studied. The two crucial parameters to understand the industry are ID and IP. To understand bancassurance better, the analysis of insurance industry firstly through ID and IP must be done.

For this objective ID as well as IP has been studied for both Life Insurance as well as Non-life Insurance. With the study of ID an idea regarding the gross premium collected in a country and hence about under insurance and uninsured population of the country can be achieved. On the other hand, IP which measures the percentage premium collected to a country's GDP is an indicator of insurance sector development.

Life insurance is a contract between an insurance policy holder and an insurance company in which the insurer promises to pay an amount of money in return for a premium upon the death of an insured person or after a certain length of time.

Non-life insurance, commonly known as general insurance in India, protects property, enterprises, and persons. This sort of insurance is known as Property and Casualty (P&C) insurance in various markets. Unlike life insurance, which insures lives for guaranteed benefits, non-life insurance covers damages on an indemnity basis. It financially protects the insured by paying money in the case of an unexpected loss. Non-life insurance policies include fire, marine, motor, health, house, factory, shop, travel, and liability insurance, among others.

4.2 Review of Literature

Rajaram S. et al (2015) studied the financial and non-financial drivers of insurance sector in an emerging economy. The study analyzed the drivers broadly to determine a causal relationship between total premium and economic growth. From the perspective of various variables, it is found that owing to various macro-economic factors and regulatory norms

there has been observed a slump in growth of insurance market in India. Nexus between the insurance sector and economic growth is empirically shown by highlighting the need for developing insurance industry to proportionately impact on economic growth. Kwon W. Jean (2013) studied the significance of regulatory orientation, political stability and culture on consumption and price adequacy in insurance markets for fifty six developed and developing countries for a period of five years to find insurance consumption is much lower in those type of countries where there is an controlling authority to regulate insurance exclusively but it is higher in those countries where insurance is regulated by agency along with government. In the non-life insurance market there is a positive impact for accounting regulation and regulator's intervention power.

4.3 Objective

After the review of existing literature, both at the international as well as national level, an idea was established that articles were predominant in banking sector with limited ones at the insurance level. More prevalently in the areas of Bancassurance, articles are meagre.

Hence this study focusses on the bancassurance sector along with insurance sector and tries to measure the situation at the international level as well as the position of India. The drivers of insurance have mostly been studied for the developed nations and the developing countries which countries like India which require to be focused on, have not been included. The drivers of insurance sector whether effect ID and IP, require to be analyzed: which is also not included in the literature. An analysis has been done keeping in mind these various broad areas which are included in this research work.

The study tries to collate the drivers that are associated with developing the factors of insurance and hence this chapter tries to explore the major drivers influencing the spread of bancassurance in India. It seeks to identify and analyze the critical drivers influencing the growth and distribution of insurance through bancassurance channels, offering a comparative perspective with global trends. This chapter, therefore, attempts to bridge the existing research void by systematically exploring the factors that shape bancassurance development and insurance sector performance in India.

4.4. Data and Methodology

The study for this objective has been undertaken for the period 2000-01 up till the year 2023-24.

Table 4.1 Table showing description and source of variables undertaken for study

Variable	Description	Source
DEPENDENT VARIABLES		
Life Insurance Density	Life Insurance Premium divided by population	Swiss Re
Non-life Insurance Density	Non-life Insurance premium divided by population	Swiss Re
INDEPENDENT VARIABLES		
World Governance Indicators		
Voice and Accountability	Freedom of expression	World Bank
Political Stability and Absence of Violence/Terrorism	Likelihood of Political Instability	World Bank
Government Effectiveness	Quality of public services	World Bank
Regulatory Quality	Sound policies of the government and promote private sector development	World Bank
Rule of Law	Confidence in and abide by rules of society	World Bank
Control of Corruption	Public power exercised for private gain	World Bank
Health Indicators		
Life Expectancy	Length of life (in number of years)	World Bank
Current health expenditure	Cost involved for health maintenance	World Bank
Economic Indicators		
Growth Rate of GDP	GDP per capita, PPP (constant 2017 international $)	World Bank
Inflation	Inflation, consumer prices (annual %)	World Bank
Real Interest Rates	Real Interest Rates (%)	World Bank
Service Value Added	Services etc.,value added (% of GDP)	World Bank

The drivers of ID and IP in India has been analysed from the point of view of three important dimensions of the economy which impact the insurance sector. Each of these indicators have been further sub – divided.

They are as follows:

4.4.1 MODEL 1: GOVERNANCE INDICATORS

Voice and Accountability(VA)- Voice and accountability capture perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media

Political Stability and Absence of Violence/Terrorism(PS)- Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism.

Government Effectiveness(GE)- Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Regulatory Quality(RQ)- Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Rule of Law(RL)- Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

Control of Corruption(CC)- Control of corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

4.4.2 MODEL2 : HEALTH INDICATORS

The Health Indicators in the study try to capture the health situation in India from the point of view of two important parameters viz., Life Expectancy and Current Health Expenditure, which are the two main factors for a person before life accepting insurance policy.

Life expectancy (LE) is based on an estimate of the average age that members of a particular population group will be when they die.

Current Health Expenditure(CHE): CHE spending as a proportion of GDP indicates the degree of resources directed to health in comparison to other purposes. It demonstrates the importance of the health sector in the overall economy and the societal priority that health is given in monetary terms.

4.4.3 MODEL 3 : ECONOMIC INDICATORS

Economic factors refer to the variables which capture the overall economic situation of a country.

Economic indicators which include factors like legal system of the country is one of the important role players in deciding the insurance demand. The various factors of economic indicators are Growth rate of GDP, Inflation, Real interest rates, service value added to the economy. have an impact on the people's perception towards purchase of insurance.

Growth rate of GDP(GDPPC)- Growth rate of GDP of India showing a positive rise almost every year with better government policies to show progress in transport infrastructure, logistics and the business ecosystem. Growth rate in GDP is propelled by infrastructure development, improved labour market conditions, sound and supportive government policies, moderate inflation etc. Even after economic slowdown, tight monetary conditions, India has shown growth in GDP over the years. This rising growth rate helps the economy to bounce back after any unfavourable economic situation. All the sectors of the economy play a vital role in promoting growth in GDP.

Inflation (INF)- is a sustained increase in the overall level of prices. But when the overall price level rises, it erodes the purchasing power of income, raises the cost of living, and lowers the real value of savings. Savers, investors, and financial intermediaries track closely the link between inflation and interest rate. The level of inflation is also critical in terms of maintaining competitiveness of domestic industry in a liberalised trading and market determined exchange rate regime. (Mohanty D.)

Real Interest rates (RINT) - RINT have an impact on the financial sector including the insurance sector. Real interest rates if higher impact insurance companies and when it falls or is low too affects the policies.

Service Value Added (SVA) - refers to the proportion of earnings to the economy from the service sector. In India service sector is the fastest growing sector of the economy with a stable growth rate over the years since independence. The insurance sector being a part of this sector also is growing since the year 2000 when India invited private and foreign players into the insurance zone. Since then, there are public as well as private insurance companies in the Indian insurance market.

Robust regression has been used here for analysis as data contained many outliers and influential observations. It is considered better than Ordinary Least Squares (OLS) in certain situations because it is more resistant to the effects of outliers and violations of assumptions. Here are some reasons why robust regression can be preferred over OLS

a) Outlier Resistance-Robust Regression can handle outliers and influential data points more effectively, reducing their impact on model's estimates.
b) Non-Normality-Robust Regression methods can handle non-normal data, whereas OLS assumes normally distributed errors.
c) Heteroskedasticity **-** Robust Regression can handle unequal variances whereas OLS assumes equal variances.

Firstly the correlation matrix is computed (Refer to Annexure A2). It is observed that for governance indicators, VA is strongly correlated with RQ and PS. So for specification I in regression outputs, RQ and PS are not taken into consideration with VA as the independent variable affecting LN_LID. Similarly, when RQ is considered for analysis, then PS and CC are not taken into consideration as they are strongly correlated. This defines speculation -II where regressors are RQ, RL and GE. Under specification III, PS and GE can only be considered as PS is strongly correlated with VA, RQ, RL and CC.

4.5 Empirical Findings

After the analysis the study revealed the following results.

Table 4.2: Table showing the expected signs of LID, NID, LIP, NIP

Variables	Life Insurance Density (LID)	Non-Life Insurance Density (NID)	LIP	NIP
GOVERNANCE				
VA	>0	>0	>0	>0
RQ	>0	>0	>0	>0
RL	>0	>0	>0	>0
GE	>0	>0	>0	>0
PS	>0	>0	>0	>0
CC	>0	>0	>0	>0
HEALTH				
LE	>0	>0	>0	>0
CHE	>0	>0	>0	>0
ECONOMIC				
GDPPC	>0	>0	>0	>0
INF	>0	>0	>0	>0
RINT	<0	<0	<0	<0
SVA	>0	>0	>0	>0

The above table presents the expected signs of various governance, health, and economic variables on four insurance indicators: Life Insurance Density (LID), Non-Life Insurance Density (NID), Life Insurance Penetration (LIP), and Non-Life Insurance Penetration (NIP).

Governance indicators such as Voice and Accountability (VA), Regulatory Quality (RQ), Rule of Law (RL), Government Effectiveness (GE), Political Stability (PS), and Control of Corruption (CC) are all expected to positively influence insurance indicators, as they promote trust, stability, and regulatory efficiency.

Health variables—Life Expectancy (LE) and Current Health Expenditure (CHE)—also show positive expected signs, suggesting that healthier populations and greater health spending drive demand for both life and non-life insurance.

Economic variables show mixed effects: GDP per capita (GDPPC), Inflation (INF), and Services Value Added (SVA) are expected to have positive effects, indicating that economic growth and a strong service sector support insurance market expansion. In contrast, Real Interest Rate (RINT) is expected to negatively affect insurance uptake, as higher rates may divert savings away from insurance products. Overall, the table summarizes theoretically grounded expectations for how these variables shape insurance development.

SECTION A

LIFE AND NON-LIFE INSURANCE (PUBLIC and PRIVATE)

MODEL1: GOVERNANCE INDICATORS

Case 1: Here the dependent variable is Life Insurance Density in natural logarithm

ln ID(Life) $= \propto_0 + \beta_1(ln\ Accountability) + \beta_2$***(ln Regularity Quality)*** $+ \beta_3\ (ln\ Political\ Stability) + \beta_4(ln\ Rule\ of\ Law) + \beta_5$ ***(ln Government effectiveness)*** $+ \beta_6$ ***(ln Control of corruption)*** $+$ ***error term***

Table4.3:Regression Results

Indept	I	II	III
Const.	2.42*	3.57*	3.87*
Ln_RL	0.11**	0.018	--
Ln_GE	-0.02	-.005	-0.02
Ln_RQ	--	0.22*	--
Ln_PS	--	--	0.49*
Ln_CC	-1.04*	--	--
Ln_VA	-0.09	--	--
F-stat(p-value)	4.02(0.02)	9.10(0.00)	4.77(0.02)
No. of observations	24	24	24

*significant at 5% level

**significant at 10% level

CC is negatively related to LID. If control of corruption which is perception of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests decreases, insurance coverage increases. Insurance level is indirectly related to satisfaction enjoyed by the common people who perceive that if corruption is there; life insurance coverage has to be raised. In the study if CC reduces, it is found that correspondingly LID increases by 1.04%.

Another significant measure is RL which signifies that the citizens' attitude towards rules of the society as well as whether the people want to abide by the rules of the society. If the rules of the country are favourable towards the people then insurance density improves. The

premium paid towards insurance is also higher. People feel secure and safe if the societal rules applied to the people are just and likelihood of crime and violence is lower. In that case people will be interested in being insured. When in a country there is robust rule of law, it enhances the economic stability of the country, which in turn provides a foundation for insurance markets as insurance can flourish with agility. People are aware that their contracts and claims will endure. Businessmen have confidence in legal institutions which leads to rise in insurance density and higher coverage reflects societal trust. In the study it is shown that if RL increases, it is found that LID too correspondingly increases by .11%

Under Specification II, the significant impactful measure of governance indicators is RQ.

With better RQ in a country, there is improved economic predictability which helps in expansion of life insurance market with synergy. Clear regulations mitigate risks and uncertainties which in turn attract investments in insurance policies too. As there is interest amongst the citizens towards insurance policy, decisions on insurance are taken by them decisively which leads to increasing the premium or getting fresh insurance coverage. So, with improved RQ, that is the regulatory standards rise, people opt for life insurance which improves LID. If RQ increases, LID correspondingly increases by .22%

Under Specification III, the significant impactful measure of governance indicators is PS.

Confidence in government stability reinforces trust of the common people and it fosters the mindset of the people favorably for insurance.PS which is a pillar of prosperity, is essential for higher insurance density which in turn signifies economic maturity. In the study too it is shown that with improvement in PS, LID too is a significant measure of governance indicators. If PS increases , then LID also rises by .49%

Case2: Here the dependent variable is Non-Life Insurance Density in natural logarithm

$$ln\ ID(Non\text{-}Life) = \propto_0 + \beta_1(ln\ Accountability) + \beta_2(ln\ Regularity\ Quality) + \beta_3\ (ln\ Political\ Stability) + \beta_4(ln\ Rule\ of\ Law) + \beta_5\ (ln\ Government\ effectiveness) + \beta_6\ (ln\ Control\ of\ corruption) + error\ term$$

Table 4.4: Regression Results

Indept	I	II	III
Const.	0.809*	1.56*	2.24*
Ln_RL	.18*	.17*	--
Ln_GE	.006	.16	-.08
Ln_RQ	--	.45*	--
Ln_PS	--	--	1.51*
Ln_CC	-1.102*	--	--
Ln_VA	-.209	--	--
F-stat(p-value)	20.52(0.00)	20.78(0.00)	8.07(.002)
No.of observations	24	24	24

*significant at 5% level

For NID, under specification I the significant measures of governance indicators are RL and CC.

The estimated coefficient of the constant is significant.

RL is positively significant when NID is taken into consideration for the study. Robust legal frameworks help in mitigating the losses arising out of businesses. RL promotes economic stability which boosts non-life insurance investment for protection of business assets with prudence.

CC is negatively significant when studied with NID. This can be related to an economy too as CC is key to economic dynamics. With decrease in control of corruption, businesses need to insure themselves more or pay higher premium for greater uncertainties and vulnerabilities. Insurance companies too charge premiums to cover elevated risk levels.

For NID under specification II, the significant measures of governance indicators are RL and RQ.

With robust RL the insurance companies can regulate the insurance policies efficiently, reducing risk of disputes between policy holders and companies. When businessmen have confidence in the in the country's legal system to uphold contractual obligations and ensure faster claim settlement, they are more likely to invest in insurance policies. A fair and just

system of legal matters applicable on a country promotes stability in financial transactions. The legal protection ensured by a well-developed RL ensures economic stability and viability of the insurance companies.

It is observed that the significant independent variable is Regulatory Quality (RQ).

Robust RQ help in consumer protection, such as clear disclosure requirements, effective premium value, equal opportunity to all policy holders and conducive mechanisms for faster resolution of disputes. Such an environment promotes trust and encourages people to purchase non-life insurance. Well- defined regulations promote innovation and competition amongst insurance companies. A constructive regulatory framework reduces overhead costs for non-life insurers, which helps insurers to allot resources more effectively.

For NID under specification III, the significant measure of governance indicators is PS.

With the establishment of a stable government in a country, the perceived risks associated with social and economic instability is decreased which in turn enhances trust among the people of a country to invest in non-life insurance to protect against future probable losses. The countries with stable government are more likely to attract FDI and non-life insurance becomes mandatory to hedge against political disruption and administrative changes.PS can be equated with better indicators of life like health care, social services etc. which require non -life insurance products like health insurance, accident coverage insurance etc which enhances insurance density.

Case 3: Here the dependent variable is Life Insurance Penetration in natural logarithm

$$ln\ IP(Life) = \propto_0 + \beta_1(ln\ Accountability) + \beta_2(ln\ Regularity\ Quality) + \beta_3\ (ln\ Political\ Stability) + \beta_4(ln\ Rule\ of\ Law) + \beta_5\ (ln\ Government\ effectiveness) + \beta_6\ (ln\ Control\ of\ corruption) + error\ term$$

Table 4.5: Regression Results

Indept	I	II	III
Const.	.93*	1.14*	1.08*
Ln_RL	-.03	-0.02	--
Ln_GE	.01	-0.00	-0.01
Ln_RQ	--	0.00	--
Ln_PS	--	--	0.12
Ln_CC	-1.96	--	--
Ln_VA	.24	--	--
F-stat(p-value)	1.6(0.34)	.28(0.84)	.89(0.12)
No.of observations	24	24	24

*significant at 5% level

The estimated coefficient of the constant is significant.

For LIP, it is found that for governance indicators, none of the measures are significant for specification I, II or III.

This shows that as per the governance indicators do not have an impact on LIP, which imply that LIP may be more impacted by income levels, demographic factors, economic stability etc.

Case 4: Here the dependent variable is Non-Life Insurance Penetration in natural logarithm

$$ln\ I.P(Non\ Life) = \propto_0 + \beta_1(ln\ Accountability) + \beta_2(ln\ Regularity\ Quality) + \beta_3\ (ln\ Political\ Stability) + \beta_4(ln\ Rule\ of\ Law) + \beta_5\ (ln\ Government\ effectiveness) + \beta_6\ (ln\ Control\ of\ corruption) + error\ term$$

Table :4.6 Regression Results

Indept	I	II	III
Const.	-0.74*	-.58*	-0.29*
Ln_RL	0.04*	0.04*	--
Ln_GE	-0.00	0.00	-0.02
Ln_RQ	--	0.18*	--
Ln_PS	--	--	0.47
Ln_CC	-0.27*	--	--
Ln_VA	-0.13*	--	--
F-stat(pvalue)	14.91(0.00)	14.20(0.00)	6.79(0.01)
No.of observations	24	24	24

*significant at 5% level

Under Specification I for NIP, the significant impactful measures of governance indicators are RL, CC and VA.

The estimated coefficient of the constant is significant.

A country with a strong foundation of RL provides for assurance regarding enforceability of insurance policies which in turn reduces costs and risks for both insurance companies as well as policyholders. With growth, development and progress of economies with the benefit of a well-developed RL, the need for non-life insurance products also rises. As insurance penetration builds up economic flexibility by supplying funds for rehabilitation after natural catastrophes or crises. A strong RL ensures faster tracks for processing of claims during such crucial times.

Another measure which is negatively significant as per study is CC

In those economies where corruption is not controlled, there is a much higher perception amongst the citizens of the country to insure their property against various risks. People therefore need to seek protection which is also a dependable tool for management of risk as well as to get compensation.

The other measure which is negatively impacting as per the study is VA.

The countries which suffer due to lower levels of VA, people are associated with higher risks of property damage, higher liabilities etc. So in such a situation there is need for non

life insurance products to safeguard property and assets. To ensure a smooth flow of business activities too, people need to insure. In such economic conditions where, trust of the general public on government sector is low, insurance acts as a tool of reassurance and also as a way of finance for security for other investments and loans.

Under Specification II for NIP, the significant impactful measures of governance indicators are RL, and RQ.

A country with a strong foundation of RL provides for assurance regarding enforceability of insurance policies which in turn reduces costs and risks for both insurance companies as well as policyholders. With growth, development and progress of economies with the benefit of a well-developed RL, the need for non-life insurance products also rises. As insurance penetration builds up economic flexibility by supplying funds for rehabilitation after natural catastrophes or crises. A strong RL ensures faster tracks for processing of claims during such crucial times.

With improvement in RQ, the citizens of a country are certain regarding the terms and conditions of an insurance policy and thus are encouraged to take up insurance. With boost in business conviction, insurance contracts are more legitimate, and any sort of disputes can also be solved easily.

Under specification III, there is no significant measure of governance indicators.

MODEL 2 : HEALTH INDICATORS

Case 1: Here the dependent variable is Life Insurance Density in natural logarithm

$$ln\ ID(Life) = \propto_0 + \beta_1\ (ln\ Life\ expectancy) + \beta_2(ln\ Current\ Health\ expenditure) + error\ term$$

Table 4.7:Regression results

Indept	I	II
Const.	-.57*	9.92*
Ln_LE	14.52*	--
Ln_CHE	--	-5.08*
F-stat(pvalue)	26.52(0.00)	44.04(0.00)
No.of observations	24	24

*significant at 5% level

The estimated coefficient of the constant is significant.

Increase in LE is associated with rise in LID. This happens due to the fact that in such a situation people want their lives to be insured. With longer life, people generally have more financial responsibilities along with potential earnings. People need to financially secure themselves to maintain a certain level of living for their family members. Higher LE is also associated with rising standards of living as well as economic development, so insuring becomes more acceptable to the people. Higher LE means higher health care expenses, which also can be met from insurance investment. As the awareness for insurance rises, tendency to insure too rises.

Insured people are also interested in preventive health care and adopt healthier lifestyles, which reduces the cost of health expenditure on their part. Insured people with adequate coverage get or seek medical intervention as and when required and also have better reach towards health care , which primarily reduces the health expenditure.

Case 2: Here the dependent variable is Non-Life Insurance Density in natural logarithm

lnID(Non-Life) $= \propto_0 + \beta_1$ ***(ln Life expectancy)***

$\beta_2(ln\ Current\ Health\ expenditure) +$ ***error term***

Table 4.8: Regression Results

Indept	I	II
Const.	-70.73*	8.5*
Ln_LE	17.30*	--
Ln_CHE	--	-5.31
F-stat(pvalue)	498.53(.000)	168.07(0.00)
No.of observations	24	24

*significant at 5% level

The estimated coefficient of the constant is significant.

Increase in LE is associated with rise in NID. This happens since medical expenses as well as assets of an individual rise with longer life. Hence people need more insurance to safeguard them. Also, with higher consumption level, need to hedge against various risks

and expenses rise. There is greater awareness amongst people for insurance products thereby raising the demand for such insurance policies.

Case 3: Here the dependent variable is Life Insurance Penetration in natural logarithm

ln IP(Life) $= \propto_0 + \beta_1$ ***(ln Life expectancy)*** $\beta_2(ln\ Current\ Health\ expenditure) +$ ***error term***

Table4.9:Regression Results

Indept	**I**	**II**
Const.	-4.57	0.00*
Ln_LE	1.34	--
Ln_CHE	--	-.85**
F-stat(pvalue)	.402(.73)	.094(3.09)
No.of observations	24	24

*significant at 5% level

**significant at 10% level

The estimated coefficient of the constant is significant.

Under specification I, there is no significant measure, implying that there may be other than LE and CHE which impact LIP.

Under specification II, CHE is significant but impacting negatively on LIP.

In countries where government takes over the responsibility of health of the citizens of the country as its social welfare program, people tend to save on medical expenditure thereby reducing its impact on penetration too. Also when people switch to medical insurance and do not invest in life insurance, assuming the former to be more fruitful, LIP falls.

Case 4: Here the dependent variable is Non-Life Insurance Penetration in natural logarithm

lnIP(NonLife) $= \propto_0 + \beta_1$ ***(ln Life expectancy)***
$\beta_2(ln\ Current\ Health\ expenditure) +$ ***error term***

Table4.10: Regression Results

Indept	I	II
Const.	-17.28*	1.28*
Ln_LE	4.02*	--
Ln_CHE	--	-1.28*
F-stat(pvalue)	35.53(0.00)	19.88(0.00)
No.of observations	24	24

*significant at 5% level

The estimated coefficient of the constant is significant.

Under specification I, the significant measure from health indicators is LE

Under specification II, the significant measure from health indicators is CHE but inversely related.

It happens in those situations when with rise in CHE, the disposable income in the hands of the people reduce, thereby reducing allocation for non-life insurance products. Also, in those situations when people have priorities towards life insurance thereby diverting funds from non-life insurance products, resulting in decreased NIP.

MODEL 3: ECONOMIC INDICATORS

The correlation matrix is calculated. It is found that for economic indicators GDPPC is strongly correlated with SVA. So for specification I, in regression outputs, SVA is not considered with GDPPC as independent variable affecting LN_LID.

In the other situation, when RINT is considered, the regressors are INF and SVA.

Case1: **Here the dependent variable is Life Insurance Density in natural logarithm**

$$ln\ ID(Life) = \propto_0 + \beta_1(ln\ Growth\ rate\ of\ GDP) + \beta_2(ln\ Inflation) + \beta_3(ln\ Real\ Interest\ rate) + \beta_4\ (ln\ service\ value\ added) + error\ term$$

Table 4.11: Regression results

Indept	I	II
Const.	-9.5*	-29.33*
Ln_GDPPC	1.67*	--
Ln_Rint	-.009	-.18
Ln_INF	.604*	.599*
Ln_SVA	--	1.16*
F-stat(pvalue)	49.40(0.00)	47.92(0.00)
No.of observations	24	24

*significant at 5% level

Under specification I, the measures which are significant for economic factors are GDPPC and INF. The estimated coefficient of the constant is significant.

This is a kind of cyclic movement whereby growth rate in GDP results in rise in LID. With rise in LID too the GDP too escalates to a greater level. As people become aware of the need of life insurance, they get themselves insured or raise the premium level. This boosts the GDP by fostering growth in infrastructure, other productive sectors etc. With boost in GDP growth rate, employment generation or business growth occurs, which again surges LID.

Rising INF leads to increased awareness about the need for financial planning. One of the tools can be to actively invest in insurance products. These products can provide to the people a sense of financial security to attain an uniform standard of living even during inflationary period. This helps in intensifying LID

Under specification II, the measures which are significant for economic factors are INF and SVA.

For this specification too, it is found that INF is a positively related measure of LID.

Like previous specification, here INF too helps in raising in LID due to factors like increased awareness and need for maintaining the criterion of living. Hence it can be understood that with rise in INF, helps in progressing LID.

Service value added (as a % of GDP) is significant in this model of economic indicators as insurance is an important part of the service sector. As insurance density rises the service

sector also plummets along with it. With the rise in population and awareness amongst people for insurance, this sector is diversifying which results in services added to the GDP.

Case 2 : **Here the dependent variable is Non-Life Insurance Density in natural logarithm**

ln ID(Non-Life) = $\propto_0$ + β_1(ln Growth rate of GDP) + β_2(ln Inflation)+ β_3(ln Real Interest rate) +β_4 ($ln\ service\ value\ added$) + error term

Table4.12: Regression results

Indept	I	II
Const.	-13.17*	-37.8*
Ln_GDPPC	2.11*	---
Ln_Rint	-.22	-.03
Ln_INF	.12*	.11*
Ln_SVA	---	1.4*
F-stat(pvalue)	434.30(0.00)	431.82(0.00)
No.of observations	24	24

*significant at 5% level

Under specification I, a significant measure of economic indicators is GDPPC and INF. The estimated coefficient of the constant is significant.

As an economy grows, the people of the country have higher income, which can be spent by them on which previously, they had not thought of investing. Insuring against non- life insurance is one such area. Those who had insurance, would prefer to raise the premium amount as the assets may also grow with growth in GDP, which again soars NID.

With rising INF, NID also gets a boost as INF demands higher expenses for replacing or repairing the assets. As the value of assets rise, demand for insurance products correspondingly go up thereby raising NID

Under specification II, a significant measure of economic indicators is INF and SVA.

Similar to previous measure, INF plays a significant role also with RINT to surge NID. INF when leaps, it also upswings the need for NID as people desire for insurance to maintain a particular standard of living. In order to continue with that, insuring the assets becomes important.

With increase in population for non-life insurance products go up, which tantamount to increase in service value (as a % of GDP). They are very highly related as service value increases as insurance rises with awareness amongst people as well as rise in population.

CASE 3: Here the dependent variable is Life Insurance Penetration in natural logarithm

ln IP(Life) $= \propto_0 +$ ***ln Growth rate of GDP)*** $+ \beta_2$***(ln Inflation)*** $+ \beta_3$***(ln Real Interest rate)*** $+\beta_4 (ln\ service\ value\ added) +$ ***error term***

Table 4.13: Regression results

Indept	**I**	**II**
Const.	-.22*	-1.2
Ln_GDPPC	.09	---
Ln_Rint	-.015	-.16
Ln_INF	.39*	.40*
Ln_SVA	---	.05
F-stat(pvalue)	7.36(0.00)	7.38(0.00)
No.of observations	24	24

*significant at 5% level

Under Specification I and II, INF is the only significant measure for economic indicators.

During inflationary period, people would prefer to secure family's financial security, and would prefer to invest in insurance products as a safety net against economic turmoil. Insurance policies also give an option to raise loans against the policy. This feature becomes crucial in inflationary period prompting people to opt for insurance products.

Case 4: Here the dependent variable is Non-Life Insurance Penetration in natural logarithm

ln IP(Non Life) $= \propto_0 +$ ***ln Growth rate of GDP)*** $+ \beta_2$***(ln Inflation)*** $+ \beta_3$***(ln Real Interest rate)*** $+\beta_4 (ln\ service\ value\ added) +$ ***error term***

Table4.14: Regression Results

Indept	I	II
Const.	-3.8*	-10.02*
Ln_GDPPC	.53*	--
Ln_Rint	-.03	-.03
Ln_INF	-.11**	-.11**
Ln_SVA	--	.36*
F-stat(pvalue)	28.67(0.00)	30.24(0.00)
No.of observations	24	24

*significant at 5% level

**significant at 10% level

Under specification I, the significant measure of economic indicator is GDPPC and INF.

With rise in growth rate of GDP insurance penetration for non-life insurance also rises as with annual increase in GDP, tendency to insure goods also rises. They are directly proportional to each other and tend to rise if one rises.

With INF at a low level, people are left with higher disposable income, prompting them to go for insurance products. This, gives a upswing to non-life insurance too. Those who are insured already, insurance companies may lower premiums on their policies making them bend towards new insurance policies too. With INF at a low level, people tend to buy costlier assets which they could not afford earlier, which needs insurance. Such products also raise the demand for NIP.

Under specification II, the significant measure of economic indicator is INF and SVA.

With INF at a low level, people are left with higher disposable income, prompting them to go for insurance products. This, gives a upswing to non-life insurance too. Those who are insured already, insurance companies may lower premiums on their policies making them bend towards new insurance policies too. With INF at a low level, people tend to buy costlier assets which they could not afford earlier, which needs insurance. Such products also raise the demand for NIP.

With better insurance awareness amongst the people of the country, it becomes positively significant, hence service value added also rises with rise in life insurance coverage.

SECTION B

BANCASSURANCE

LIFE INSURANCE (PUBLIC and PRIVATE)

Data for Bancassurance (Non-Life Insurance): *Bancassurance data on Non-Life Insurance (both public and private insurance companies) are not available on the IRDA website from the year 2000, as private sector Non-Life Insurance started since 2014. Consequently, both public non-life bancassurance and private non-life bancassurance data are not provided on the IRDA website. For the purposes of this study, figures for public and private insurance (expressed as a percentage of premium) have been used in the analysis of the bancassurance segment.*

MODEL1: GOVERNANCE INDICATORS

$$ln\ BANCA\_PUB(Life) = \propto_0 + \beta_1(ln\ Accountability) + \beta_2(ln\ Regularity\ Quality) + \beta_3\ (ln\ Political\ Stability) + \beta_4(ln\ Rule\ of\ Law) + \beta_5\ (ln\ Government\ effectiveness) + \beta_6\ (ln\ Control\ of\ corruption) + error\ term$$

Case 1: **Here the dependent variable is Bancassurance in Public life insurance in natural logarithm**

Table 4.15:Regression results

Indept	I	II	III
Const.4.	.02	.42*	.67*
Ln_RL	.17*	.15*	--
Ln_GE	.57**	.04	-.04
Ln_RQ	--	.11	--
Ln_PS	--	--	.52
Ln_CC	-.47*	--	--
Ln_VA	-.56	--	--
F-stat(p-value)	9.75(0.00)	13.64(.00)	2.06(.15)
No.of observation	24	24	4

*significant at 5% level

**significant at 10% level

Under specification I, the significant measures of governance indicators are RL, GE and CC.

With a strong RL enforced in a country, people generally opt for life insurance more. Again, the same ensures that public banks are operating with greater regulatory framework and efficiency which makes people opt for insuring their lives from public sector banks. People are generally protected from malpractice and fraud when they are under robust laws. This also supports them to insure themselves from public banks.

Similarly with efficient GE, people have trust in the government and hence on public sector banks which encourages people to insure themselves from public sector banks. With improved financial literacy promoted by public sector banks and transparency and streamlined processes ensured by GE, people opt for insurance from public banks.

Here it is found that CC is negatively related to Bancassurance Public Life. This can happen ironically when people analyse the public sector banks to be safe for purchase of policies rather than private banks. The spread of public banks is not limited to urban areas, hence tendency of rise in insurance policies from these banks is always more.

Under specification II, the significant measure of governance indicators is RL.

With a strong RL enforced in a country, people generally opt for life insurance more. Again, the same ensures that public banks are operating with greater regulatory framework and efficiency which makes people opt for insuring their lives from public sector banks. People are generally protected from malpractice and fraud when they are under robust laws. This also supports them to insure themselves from public banks.

Under specification III, there is no significant measure of governance indicators.

Case 2: **Here the dependent variable is Bancassurance in Private life insurance in natural logarithm**

$$ln\ BANCA\_PVT(Life) = \propto_0 + \beta_1(ln\ Accountability) + \beta_2(ln\ Regularity\ Quality) + \beta_3\ (ln\ Political\ Stability) + \beta_4(ln\ Rule\ of\ Law) + \beta_5\ (ln\ Government\ effectiveness) + \beta_6\ (ln\ Control\ of\ corruption) + error\ term$$

Table4. 16: Regression Results

Indept	I	II	III
Const.	2.8*	3.12*	3.5*
Ln_RL	.21*	.19*	--
Ln_GE	-.00	.01	-.08**
Ln_RQ	--	.17**	--
Ln_PS	--	--	1.08*
Ln_CC	-.46*	--	--
Ln_VA	-.77	--	--
F-stat(p-value)	22.49(0.00)	28.05(0.00)	6.41(0.01)
No.of obs	24	24	24

*significant at 5% level

**significant at 10% level

Under specification I, the significant measures of governance indicators are RL, and CC.

With robust RL, people do have trust and confidence even on private banks. With this in mind that malpractices would be lower and transparent services provided by private banks, people opt for life insurance from private banks too.

Private banks at the cost of money provide services and variety in insurance policies which may not be done by public banks. Sometimes too much documentation or distrust of the people towards public banks turns them towards private banks too. The private banks can provide services which are of global standards with better marketing and branding.

Under specification II, the significant measures of governance indicators are RL, and RQ.

With robust RL, people do have trust and confidence even on private bank. With this in mind that malpractices would be lower and transparent services provided by private banks, people opt for life insurance from private banks too. With improved RL private banks offer innovative policies to suit the needs of younger generation and lesser documentation attracts them towards private banks too.

Under specification III, the significant measures of governance indicators are GE and PS.

Now with enhanced financial stability, streamlined work system, enhanced growth, financial literacy- all provided by GE, people do not hesitate to insure themselves from private banks too.

With enhanced reliance on private institutions too due to formation of stable government, individuals can easily depend on private banks for their investments. Private banks with better services attract the people with flexible terms of policies tailor made to suit the needs of a variety of population. With better risk management, enhanced infrastructure, higher disposable income in the hands of the people, insurance from private banks rises.

MODEL2: HEALTH INDICATORS

Case 1: **Here the dependent variable is Bancassurance in Public life insurance in natural logarithm**

$$lnBANCA\_PUB(Life) = \propto_0 + \beta_1 (lnLifeexpectancy + \beta_2 (ln\ Current\ Health\ expenditure) + error\ term$$

Table4.17: Regression Results

Indept	I	II
Const.	-39.0*	4.21*
Ln_LE	9.41*	---
Ln_CHE	--	-2.97*
F-stat(pvalue)	51.88(0.00)	17.77(0.00)
No.of observations	24	24

*significant at 5% level

The significant measure of health indicator is LE.

Improved LE signifies longer financial planning horizon and also retirement plans for a greater number of years. Due to this and increased awareness amongst the people of the country there is rise in insurance investment.

The significant measure of health indicator is CHE.

Here the significant factor is CHE although inversely related.

Even if there is fall in CHE, with a more diversified financial literacy programs may prompt people to go for insurance policies for the future need. Sometimes to meet the health

emergencies, public banks promote these policies at times of falling CHE for a particular type of disease.

Case 2: **Here the dependent variable is Bancassurance in Private life insurance in natural logarithm**

$$lnBANCA\_PVT(Life) = \propto_0 + \beta_1(lnLifeexpectancy) + \beta_2(ln\ Current\ Health\ expenditure) + error\ term$$

Table4.18: Regression Results

Indept	I	II
Const.	-.64*	9.00*
Ln_LE	16.18*	--
Ln_CHE	--	-4.5*
F-stat(pvalue)	193.03(0.00)	20.04(0.00)
No.of observations	24	24

*significant at 5% level

The significant measure of health indicator is LE.

Improved LE signifies longer financial planning horizon and also retirement plans for a greater number of years. Due to this and increased awareness amongst the people of the country there is rise in insurance investment. Private banks offer more comprehensive and customized insurance policies to attract the investors. This leads to rise in insurance investment.

The significant measure of health indicator is CHE.

Here the significant factor is CHE although inversely related.

Even if there is fall in CHE, with a more diversified financial literacy programs may prompt people to go for insurance policies for the future need. Sometimes to meet the health emergencies, private banks promote these policies at times of falling CHE for a particular type of disease. With falling services from public banks, people tend to opt for private banks to meet needs of insurance specially life.

MODEL3: ECONOMIC INDICATORS

Case 1: Here the dependent variable is Bancassurance in Public life insurance in natural logarithm

$$ln\ BANCA\_PUB(Life) = \propto_0 + \beta_1(ln\ Growth\ rate\ of\ GDP) + \beta_2(ln\ Inflation) + \beta_3(ln\ Real\ Interest\ rate) + \beta_4\ (ln\ service\ value\ added) + error\ term$$

Table 4.19: Regression Results

Indept	I	II
Const.	-8.6*	-22.78*
Ln_GDPPC	1.22*	--
Ln_RINT	.04	.03
Ln_INF	.29*	.2**
Ln_SVA	--	.83*
F-stat(pvalue)	41.53(0.00)	42.860.00)
No.of observations	24	24

*significant at 5% level

**significant at 10% level

Under specification I, the significant measure of economic indicators is GDPPC and INF.

With improved growth rate in GDP, and hence improved financial stability and employment opportunities and rising confidence on public institutions, life insurance from public banks is attractive to the common people. Expansion of public sector banks to even the remote villages of India is taking even insurance to these areas.

Insurance policies are sometimes used as instruments to hedge against rising inflation. Public sector banks offer traditional policies which have fixed or stable premium which provide stability even during inflationary period. There is also long term security when insurance undertaken from public banks, hence public banks perceived as banks backed up by the government can be utilized for insurance even during inflationary times.

Under specification II, the significant measure of economic indicators is INF and SVA

Insurance policies are sometimes used as instruments to hedge against rising inflation. Public sector banks offer traditional policies which have fixed or stable premium which

provide stability even during inflationary period. There is also long term security when insurance undertaken from public banks, hence public banks perceived as banks backed up by the government can be utilized for insurance even during inflationary times.

Insurance is part of tertiary sector and bancassurance undertaken with public sector banks will rise in a positive manner, which propels the service value added to the economy. Increased sale of insurance policies contribute to service value addition into the economy.

Case 2: **Here the dependent variable is Bancassurance in Private life insurance in natural logarithm**

$$ln\ BANCA\_PVT(Life) = \propto_0 + \beta_1(ln\ Growth\ rate\ of\ GDP) + \beta_2(ln\ Inflation) + \beta_3(ln\ Real\ Interest\ rate) + \beta_4\ (ln\ service\ value\ added) + error\ term$$

Table 4.20*:* Regression Results

Indept	**I**	**II**
Const.	-11.3*	-.34*
Ln_GDPPC	1.97*	--
Ln_Rint	.067	.05
Ln_INF	.303*	.30*
Ln_SVA	--	1.3*
F-stat(pvalue)	98.42(0.00)	102.20(0.00)
No.of observations	24	24

*significant at 5% level

Under Specification I, the significant economic indicators identified are GDP per capita (GDPPC) and inflation (INF). A growing GDP reflects a strengthening economy, which typically boosts consumer confidence in the financial system. As a result, individuals are more likely to explore formal financial instruments, including life insurance products. With rising income levels, people tend to seek avenues for both financial security and wealth accumulation, and insurance—particularly life insurance offered through private sector banks—becomes a natural choice. Private banks, operating under competitive market dynamics, design a wide array of customized insurance products to suit evolving consumer needs. These products often combine protection with savings or investment components, catering to both risk-averse and wealth-focused customers. Consequently, an increase in GDP not only enhances consumers' capacity to invest in insurance but also increases their

willingness to do so through trusted private financial institutions, leading to a proportional rise in life insurance density in the private sector.

Inflation (INF), another key economic variable under both specifications, also plays an important role in shaping insurance demand. During inflationary periods, consumers look for instruments that can preserve or grow the real value of their money. Some insurance policies offered by private banks are designed specifically to provide stable returns even when inflation is high. These policies, with built-in inflation protection or flexible payout options, offer a sense of financial reliability, attracting customers who seek long-term stability amidst rising costs. The flexibility and variety offered by private banks enable them to meet diverse risk appetites and financial goals, reinforcing consumer trust and encouraging insurance uptake even during economically volatile periods.

Under Specification II, inflation (INF) remains significant alongside the Share of Value Added by the service sector (SVA). The rising SVA indicates a growing contribution of services—including financial services—to the overall economy. As private banks expand their footprint and market share, particularly through bancassurance models, their contribution to the service sector becomes more pronounced. Bancassurance, by integrating insurance offerings into mainstream banking services, enhances accessibility, convenience, and consumer reach. This integration not only adds value to the financial services landscape but also stimulates the insurance sector by tapping into the existing customer base of banks. The synergy between banking and insurance services contributes to higher service sector output, thus elevating SVA. This suggests that the growth of bancassurance channels—driven by private sector dynamism—adds both economic value and financial inclusivity, reinforcing the importance of service-oriented financial innovation in driving insurance sector development.

In summary, both specifications highlight how macroeconomic stability, inflationary resilience, and the expanding role of the service sector—particularly through private sector participation—serve as critical drivers for life insurance growth in India. These dynamics underscore the relevance of bancassurance not merely as a distribution model but as a strategic contributor to financial sector deepening and economic value creation.

4.6. Summing Up

The interconnection between financial sector development and economic progress has been widely recognized in modern economic literature. Among the various components of the

financial ecosystem, the insurance sector plays a crucial role in risk mitigation, long-term savings mobilization, and financial stability. Within this sector, the emergence of *bancassurance*—a model that enables banks to distribute insurance products—has introduced a new dimension to insurance outreach and financial inclusion. Bancassurance leverages the extensive branch network, customer trust, and financial expertise of banks to deliver insurance solutions more efficiently and at a wider scale.

Despite the growth of bancassurance globally, academic focus on this distribution model—especially in emerging economies like India—remains limited. While substantial research has examined banking sector reforms and economic development, the insurance sector, and particularly the bancassurance channel, has received comparatively less attention. Moreover, most existing studies are concentrated in developed nations, with inadequate representation of the structural, regulatory, and socio-economic dynamics found in developing countries. This has created a gap in understanding how various macro-level factors—such as governance quality, health indicators, and economic parameters—influence insurance growth and the success of bancassurance as a distribution strategy. India, with its rapidly expanding middle class, increasing financial literacy, and robust banking infrastructure, presents a unique context for studying bancassurance. The country has witnessed notable growth in both public and private sector participation in life and non-life insurance, yet insurance penetration and density remain modest relative to global standards. As such, it becomes essential to identify the key drivers that can influence insurance uptake and the effectiveness of bancassurance in bridging protection gaps across diverse populations.

This study aims to analyze the influence of governance, health, and economic indicators on insurance density (ID) and insurance penetration (IP) for both life and non-life segments. Further, it evaluates whether these drivers have a parallel impact on the spread of bancassurance in India. By doing so, the research not only contributes to existing academic discourse but also offers policy-relevant insights for regulators, insurers, and banking institutions seeking to enhance the reach and effectiveness of insurance services through bancassurance models.

Building upon this objective, the study underscores that only statistically significant factors influence Insurance Density (ID), Insurance Penetration (IP), and the growth of bancassurance. The governance parameters—particularly Rule of Law (RL), Regulatory

Quality (RQ), and Political Stability (PS)—play a vital role in enhancing life and non-life insurance density. These indicators reflect institutional strength and administrative efficiency; when governance is perceived to be stable and effective, individuals are more likely to trust and invest in formal financial instruments such as insurance. This trust fosters an environment conducive to insurance market expansion.

Health-related indicators, namely Life Expectancy (LE) and Current Health Expenditure (CHE), also show a strong positive relationship with insurance uptake. As life expectancy improves and public and private spending on health increases, awareness about long-term financial planning and risk mitigation grows, leading to greater adoption of life and non-life insurance. These factors collectively indicate that improvements in human development correlate strongly with increased demand for insurance.

Economic factors such as GDP per capita (GDPPC), Inflation (INF), and the Share of Value Added by the service sector (SVA) are also central to driving insurance development. GDPPC indicates rising income levels and purchasing power, encouraging individuals to seek financial products beyond basic needs, including life insurance for wealth protection and accumulation. Moderate inflation, when managed well, can incentivize consumers to safeguard their future incomes through insurance. Similarly, a rising SVA demonstrates a shift towards a service-based economy, which is particularly relevant for the growth of bancassurance, as banks and insurance companies operate primarily within this sector.

Once the impact of these drivers on ID and IP is established, they are extended to test their influence on bancassurance. Bancassurance acts as a strategic channel that bridges the gap between financial services and insurance coverage, enhancing outreach across various socio-economic segments. In India, banks enjoy deep-rooted trust among people—across rural, semi-urban, and urban regions—owing to their regulatory oversight by the Reserve Bank of India (RBI), strong infrastructure, and long-standing presence. This trust is especially evident among low-income and financially underserved populations, who may not otherwise engage directly with insurance providers.

By partnering with banks, insurance companies can leverage this existing infrastructure and customer base. Banks have access to detailed customer profiles, including financial goals, income levels, and spending habits, which can be used to offer tailored insurance products. Whether for income protection, health emergencies, or future investments, insurance

companies can align their products with customer needs, making bancassurance a powerful distribution mechanism.

The study confirms that the factors influencing ID and IP similarly affect the spread of bancassurance in both the public and private sectors. This convergence implies that any policy framework or reform that strengthens the key drivers of ID and IP will also indirectly promote the growth of bancassurance. As such, bancassurance is not just a supplementary distribution channel but a parallel mechanism capable of enhancing insurance penetration, improving financial inclusion, and supporting the broader goals of economic development.

The interconnection between financial sector development and economic progress has been widely recognized in modern economic literature. Among the various components of the financial ecosystem, the insurance sector plays a crucial role in risk mitigation, long-term savings mobilization, and financial stability. Within this sector, the emergence of *bancassurance*—a model that enables banks to distribute insurance products—has introduced a new dimension to insurance outreach and financial inclusion. Bancassurance leverages the extensive branch network, customer trust, and financial expertise of banks to deliver insurance solutions more efficiently and at a wider scale.

Despite the growth of bancassurance globally, academic focus on this distribution model—especially in emerging economies like India—remains limited. While substantial research has examined banking sector reforms and economic development, the insurance sector, and particularly the bancassurance channel, has received comparatively less attention. Moreover, most existing studies are concentrated in developed nations, with inadequate representation of the structural, regulatory, and socio-economic dynamics found in developing countries. This has created a gap in understanding how various macro-level factors—such as governance quality, health indicators, and economic parameters—influence insurance growth and the success of bancassurance as a distribution strategy. India, with its rapidly expanding middle class, increasing financial literacy, and robust banking infrastructure, presents a unique context for studying bancassurance. The country has witnessed notable growth in both public and private sector participation in life and non-life insurance, yet insurance penetration and density remain modest relative to global standards. As such, it becomes essential to identify the key drivers that can influence insurance uptake and the effectiveness of bancassurance in bridging protection gaps across diverse populations.

This study aims to analyze the influence of governance, health, and economic indicators on insurance density (ID) and insurance penetration (IP) for both life and non-life segments. Further, it evaluates whether these drivers have a parallel impact on the spread of bancassurance in India. By doing so, the research not only contributes to existing academic discourse but also offers policy-relevant insights for regulators, insurers, and banking institutions seeking to enhance the reach and effectiveness of insurance services through bancassurance models.

CHAPTER V
ROLE OF INSURANCE DENSITY THROUGH BANCASSURANCE ON ECONOMIC GROWTH IN INDIA- AN EMPIRICAL INVESTIGATION

5.1 Context of the Study

Recent studies in financial history show that consistent economic growth usually follows the rise of a modern financial system. Key elements like effective governance, economic factors, a central bank, organized banking, active securities markets, and a dependable insurance sector are essential for supporting economic development. In the framework of financial sector development, the expansion of insurance services through bancassurance represents a structural innovation that enhances market efficiency and broadens financial intermediation. Bancassurance, by leveraging the existing infrastructure and clientele of the banking sector, reduces distribution costs, mitigates information asymmetry, and facilitates the cross-selling of financial products. A critical outcome of this integration is the increase in insurance density which is a key proxy for insurance market development and financial integration. In the context of India's emerging economy, increasing insurance density via bancassurance is theorized to contribute positively to economic growth through several transmission mechanisms. First, by pooling and redistributing risks, insurance fosters greater economic efficiency and investment certainty. Second, the accumulation of long-term contractual savings through life and non-life insurance enhances the availability of investible funds, thereby promoting financial goals and productive investment. The insurance sector has had a wide-ranging impact on the economy. It supports economic growth by functioning as a financial intermediary and by offering risk transfer and compensation services. This enables more effective risk management and encourages the mobilization of domestic savings. The link between the development of the insurance sector and economic growth has been well-documented across financial literature. Overall, empirical studies have consistently shown a positive long-term relationship between measures of insurance sector development and economic growth. As with other financial institutions, such as insurance, market operations play a critical role in enabling economic growth. The insurance industry activities carry out a range of key economic functions that are largely unaffected by other financial intermediaries, such as banking .The functions of

the insurance market- both as an indemnifier and risk transferor and as an institutional investor- can help the economy grow through promoting financial stability, trade and commerce, mobilizing domestic savings, facilitating various risks to be managed more economically, stimulating the mobilization of additional capital, enabling a better allocation of domestic capital facilitates relief or reduction of loss.

Furthermore, life and non-life insurance business operations may have different effects on economic growth because of the inherent difference between the two. These varied activities in the insurance industry help to protect households and businesses against a varied range of risks that affect economic activity in unique ways. Apart from, Life insurance firms primarily deal in long-term investment schemes, as contrasted to the short-term investment techniques commonly employed by non-life insurance firms.

This study establishes the existence of a long-run equilibrium relationship among the growth of the insurance industry, the growth of the banking industry, and economic growth. It establishes a strong and statistically significant positive impact of economic growth and the growth of the banking industry on the growth of the insurance industry in India, and this suggests that both these determinants are the prime drivers for the growth of the insurance industry in the Indian economy.

5.2 Literature Review

Pradhan et al (2015) studied the dynamics of insurance sector development, banking sector development and economic growth in G-20 countries to show that there exists a long term relation within these variables.

Pradhan et al (2017) studied insurance market density and economic growth in Eurozone countries through Granger Causality to arrive at both uni- directional as well as bi directional causality. It was found by them that economic policies should recognise the differences in the sector of insurance as well growth in an economy so as to maintain sustainable growth.

Research on ASEAN Regional Forum countries (1988–2012) examines Granger causal relationships among insurance market penetration, broad money, stock market capitalization, and economic growth. Findings reveal integration and a network of causal links, including short-run bidirectional causality between insurance penetration and economic growth. The study recommends stronger regulatory frameworks, professional

education for insurance personnel, and opening domestic insurance markets to foreign players to enhance competition, efficiency, and adherence to international standards.

Pradhan, R. P., Arvin, (2017) analyzing 26 countries (1980–2013) explores the integrating and causal relationships between insurance market development (IMD) and economic growth using panel-data techniques. Six IMD indicators validate robustness, revealing a long-run equilibrium among IMD, growth, and macroeconomic factors such as money supply, interest rates, inflation, urbanization, youth dependency, and government spending. Panel VAR results show IMD and certain macroeconomic variables Granger-cause economic growth in the long run, confirming the insurance sector's critical role in economic development.

Pradhan, R. P., Arvin, (2015) studied 34 OECD countries (1988–2012) investigates causal relationships between insurance market development, financial development, and economic growth using a panel VAR model. Insurance development is measured through life, non-life, and total insurance density and penetration, while financial development is captured by a composite index. Findings reveal both insurance and financial development as long-run drivers of economic growth, while short-run dynamics exhibit diverse adjustment patterns, including potential bidirectional feedback among variables.

5.3 Objective

The financial system of a country functions as a backbone for its economic development, with the banking and insurance sectors playing mutually reinforcing roles. In India, the growing convergence of these sectors—particularly through bancassurance—has reshaped the way financial services are delivered, offering integrated solutions to a broader segment of the population. Recognizing this synergy, the present study seeks to examine the dynamic interrelationship between the banking sector, the insurance sector, and economic growth, focusing on whether a bidirectional association exists among them. By specifically analyzing the influence of insurance density generated through bancassurance on India's economic development, this research aims to uncover whether bancassurance not only enhances insurance outreach but also contributes meaningfully to macroeconomic performance. This holistic approach helps assess the extent to which the integration of banking and insurance services can act as a catalyst for sustained and inclusive economic growth in India.

To analyse the impact of banking sector on insurance as well as economic development in India by a holistic two way study on these sectors the research tries to frame this objective. By this objective it will be analysed whether a two way relation exists between these sectors. Accordingly the objective is to analyse the effect of insurance density through bancassurance on economic growth in India.

5.4 Data and Methodology

To analyse the effect of insurance density through bancassurance on economic growth in India, a study is done from the year 2000-01 to 2023-24 with the following data.

Table 5.1 Table showing the variables used in study and definition

Variable	Variable definition
GDP	Per capita economic growth; percentage change in per capita gross domestic product
LID	Life insurance density: direct domestic life insurance premium per capita in USD
NID	Non-life insurance density: direct domestic non-life premium per capita in USD
LIP	Life Insurance penetration: direct domestic life premium expressed as a percentage of GDP
NIP	Non-life insurance penetration: direct domestic non-life premium as a percentage of GDP
PSC	Private sector credit: expressed as a percentage of GDP
SDB	Savings Deposits with Commercial Banks(Indian and foreign banks) expressed in (₹ In crore)
NCB	Population group -wise of number of branches of scheduled commercial banks
BMS	Broad Money Supply (expressed as a % of GDP)

Annual data from the year 2000 to 2024 for India were obtained from the World Development Indicators of the World Bank and Sigma/ Economic Research and Consulting, Switzerland. The variables used were growth rate of real per capita income as a percentage, life insurance density as premium per capita (LID), non-life insurance density as a premium per capita (NID), life insurance penetration as a percentage of gross domestic product (LIP), non-life insurance penetration as a percentage of GDP (NIP). All the variables were converted into natural logarithms for purposes of estimation.

The model is used for long run and short run causal relationship between insurance sector development and banking sector development and per capita economic growth (GDP) , where LID, NID ,LIP and NIP are used as variables for insurance sector development , PSC, SDB, NCB, BMS are used as variables for banking sector development.

The mutual relationship between banking sector development (BSD), insurance sector development (ISD) and economic growth in India during the study period of 2000-2024 is taken into consideration. For this purpose, stationarity test is conducted namely Augmented Dicky Fuller (ADF) test.

5.5 Empirical findings

The analysis of the data for the given period divulged the following results.

Table 5.2: Table showing Unit Root Test Results

Variables	ADF Unit Root Test Results	
	At Levels	At First Differences
LnGDP	-3.21	-6.102*
Lnidlife	-1.403	-3.47*
Lnidnonlife	-1.12	-4.15*
Lniplife	-1.977	-4.506*
Lnipnonlife	-2.016	-4.291*
Lnbms	-2.183	-3.909*
Lnpsc	-0.993	-5.951*
Lnsdb	-1.340	-5.164*
Lnncb	-2.184	-5.439*

H_0: Variable has unit root or non-stationary

H_1: Variables are stationary

- For purposes of estimation, all variables have been converted into their natural logarithms.
- All the concerned variables are first difference stationary

Causal Relationships have been tested in the model to show **GDP =f(ID**) through Bancassurance. Accordingly, the four different cases that were tested:

Table 5.3: Table showing the four cases of BMS, NCB, SDB, and PSC with ID

BSD Variable	LIFE	NON-LIFE
Case1: BMS	LID ─ BMS ─ GDP	NID ─ BMS ─ GDP
Case2: NCB	LID ─ NCB ─ GDP	NID ─ NCB ─ GDP
Case 3: SDB	LID ─ SDB ─ GDP	NID ─ SDB ─ GDP
Case 4: PSC	LID ─ PSC ─ GDP	NID ─ PSC ─ GDP

Table 5.4: Table showing the results of BMS with LID and NID

Bi Variate Variables	Direction of Causality	Test Statistic (p-value)	Decision
LID and BMS	LID ↔ BMS	4.5047 (0.041) 4.33 (0.015)	Supply-side hypothesis Accepted
NID and BMS	NID ↔BMS	13.126 (0.001) 11.4767 (0.048)	Supply-side hypothesis Accepted
BMS and GDP	BMS ↔ GDP	12.034(.003) 8.341(.0305)	Supply and Demand Side Hypothesis Accepted

The existence of bidirectional causality between ID and Economic Growth through the bancassurance variable of BMS is examined. It is found that there is existence of bi-directional causality between broad money supply and economic growth (BMS ↔ GDP), life insurance density and economic growth (LID ↔GDP) and between life insurance density and BMS. This gives evidence of two-way Granger Causality between BMS and GDP, LID and GDP and LID and BMS. This signifies that there is support for both the supply leading hypothesis and demand following hypothesis. This indicates that they mutually cause each other, and their reinforcement may have important implications for the development of financial and economic policies

Table 5.5: Table showing the results of NCB with LID and NID

Bi Variate Variables	Direction of Causality	Test statistic (p values)	Decision
LID and NCB	LID ↔ NCB	0.36876(.002) 0.04096(.008)	Supply-side hypothesis Accepted
NID and NCB	NCB → NID	11.753(.003)	Supply-side hypothesis Accepted
NCB and GDP	GDP ↔ NCB	3.8645(.005) 0.17488(.006)	Supply-side and Demand side hypothesis Accepted

In the above situation the existence of Bi-directional causality between ID and Economic growth through the bancassurance variable of NCB is examined. It is found that there is existence of bidirectional causality between number of bank branches and economic growth (NCB ↔ GDP), LID and economic growth (LID ↔GDP) and between LID and number of commercial bank branches. This gives the evidence of two-way Granger Causality between NCB and GDP , LID and GDP and LID and NCB. This signifies that there is support for both the supply leading hypothesis and demand following hypothesis. This indicates that they mutually cause each other, and their reinforcement may have important implications for the development of financial and economic policies.

Table 5.6: Table showing the results of PSC with LID and NID

Bi Variate Variables	Direction of Causality	Test Statistic (p value)
LID and PSC	LID → PSC	12.785(0.002)
NID and PSC	NID ↔ PSC	6.8189(0.033)
PSC and NID		6.4966(0.039)
GDP and PSC	PSC → GDP	6.1904(0.045)

The existence bidirectional causality between ID and Economic growth through the bancassurance variable of PSC is examined. It is found that supply side hypothesis is fulfilled for PSC as LID → SDB and PSC ↔ NID. But the demand side is not fulfilled as PSC → GDP is unidirectional which signifies economic growth does not lead to increase in demand for PSC.

Table 5.7: Table showing the results of SDB with LID and NID

Bi Variate Variables	Direction of Causality	Test Statistic (p value)
LID and SDB	LID ↔ SDB	7.8832(.0019)
		5.5102(0.064)
NID and SDB	SDB ↔ NID	11.051 (0.004)
		38.903(0.000)
SDB and GDP	SDB → GDP	0.68853(0.009)

The existence of bidirectional causality between ID and Economic growth through the bancassurance variable of SDB is examined. It is found that supply side hypothesis is fulfilled for SDB as LID ↔ SDB and SDB ↔ NID. But the demand side is not fulfilled as SDB → GDP is unidirectional which signifies economic growth does not lead to increase in demand for SDB.

Causal Relationships have been tested in the model to show **GDP =f(IP)** through Bancassurance. Accordingly, the four different cases that were tested:

Table 5.8: Table showing the four cases of BMS, NCB, SDB, and PSC with IP

BSD Variable	LIFE	NON-LIFE
Case1: BMS	LIP ─ BMS ─ GDP	NIP─ BMS ─ GDP
Case2: NCB	LIP ─ NCB ─ GDP	NIP─ NCB ─ GDP
Case 3: SDB	LIP ─ SDB ─ GDP	NIP ─ SDB ─ GDP
Case 4: PSC	LIP ─ PSC ─ GDP	NIP─ PSC ─ GDP

Table 5.9: Table showing the results of BMS with LIP and NIP

Bi Variate Variables	Direction of Causality	Test Statistic (p-value)	Decision
LIP and BMS	LIP ↔ BMS	8.54311(0.036) 10.8707(0.0144)	Supply-side hypothesis Accepted
NIP and BMS	NIP ↔BMS	3.3736(0.018) 11.879 (0.039)	Supply-side hypothesis Accepted
BMS and GDP	BMS ↔ GDP	12.034(.003)	Supply and Demand Side Hypothesis Accepted

There is existence of bidirectional causality between IP and Economic growth through the bancassurance variable of BMS is examined. It is found that there is existence of bi-directional causality between broad money supply and economic growth (BMS ↔ GDP), life IP and economic growth (LIP ↔GDP) and between life insurance density and Broad Money Supply. This gives the evidence of two-way Granger Causality between BMS and GDP, LIP and GDP and LIP and BMS. This signifies that there is support for both the supply leading hypothesis and demand following hypothesis. This indicates that they mutually cause each other, and their reinforcement may have important implications for the development of financial and economic policies.

Table 5.10: Table showing the results of NCB with LIP and NIP

Bi Variate Variables	Direction of Causality	Test statistic (p value)	Decision
LIP and NCB	LIP↔ NCB	2.8716(.038) 7.406(.0025)	Supply-side hypothesis Accepted
NIP and NCB	NCB → NIP	2.815(.005) 8.9184(0.014)	Supply-side hypothesis Accepted
NCB and GDP	GDP ↔ NCB	3.8645(.005) 0.17488(.006)	Supply-side and Demand side hypothesis Accepted

In the above situation the existence of Bi-directional causality between IP and Economic growth through the bancassurance variable of NCB is examined. It is found that there is existence of bidirectional causality between number of bank branches and economic growth (NCB ↔ GDP), LIP and economic growth (LID ↔GDP) and between LIP and NCB. This gives evidence of two-way Granger Causality between NCB and GDP, LID and GDP and LID and NCB. This signifies that there is support for both the supply leading hypothesis and demand following hypothesis. This indicates that they mutually cause each other, and their reinforcement may have important implications for the development of financial and economic policies.

Table 5.11: Table showing the results of PSC with LIP and NIP

Bi Variate Variables	Direction of Causality	Test Statistic (p value)
LIP and PSC	LIP → PSC	12.211(0.002)
NIP and PSC	NIP → PSC	22.336(0.00)
GDP and PSC	PSC → GDP	6.1904(0.045)

The existence bidirectional causality between IP and Economic growth through the bancassurance variable of PSC is examined. It is found that supply side hypothesis is fulfilled for PSC as LIP → SDB and PSC ↔ NIP. But the demand side is not fulfilled as PSC → GDP is unidirectional which signifies economic growth does not lead to increase in demand for PSC.

Table 5.12: Table showing the results of SDB with LIP and NIP

Bi Variate Variables	Direction of Causality	Test Statistic (p value)
LIP and SDB	LIP ↔ SDB	0.33134(.007)
		2.3145(.004)
NIP and SDB	SDB ↔ NIP	17.087(0.00)
		3.8301(.007)
SDB and GDP	SDB → GDP	0.68853(0.009)

The existence of bidirectional causality between IP and Economic growth through the bancassurance variable of SDB is examined. It is found that supply side hypothesis is fulfilled for SDB as LID ↔ SDB and SDB ↔ NID. But the demand side is not fulfilled as SDB → GDP is unidirectional which signifies economic growth does not lead to increase in demand for SDB.

When the Granger causality is examined on ID and IP on BMS, NCB, SDB, PSC, similar type of results are arrived at. This shows the robustness of the test particularly between insurance sector development and economic growth. It is crucial to note that these results are confirmed by previous studies too (Pradhan 2015). Bidirectional Granger causality between banking sector development and insurance sector development also corroborate with already established results (Liu and Lee 2014). The causal nexus between life insurance and banking sector development show more bidirectional results than when compared with non -life insurance. The study lays stress on interdependence between economic growth, insurance market development and banking sector development. It can be observed from the above results that banking sector development and economic growth are impactful for insurance sector development. It is also investigated and found that these parameters are

cointegrated. The Granger causality tests substantiate that ID and IP are poignant for both banking sector development and economic growth. This is the result of demand side hypothesis which is more so shown for life insurance. The interdependence between insurance sector development, banking sector development and economic growth when studied through Granger causality show that both banking sector and economic growth impact insurance sector positively.

5.5 Summing Up

The present study, under this objective, has attempted to explore the intricate relationship between the banking sector development (BSD), insurance sector development (ISD), and their joint influence on economic growth in India. By employing empirical analysis using various indicators of BSD such as credit availability, private sector credit, scheduled commercial banks, number of bank branches along with ISD parameters like insurance density and penetration, the study captures the interplay between these sectors and their collective impact on the broader economy.

The outcomes of the analysis provide strong evidence of mutual reinforcement between BSD and ISD, suggesting that progress in one sector can drive development in the other. This is especially evident when examined through the lens of bancassurance. Bancassurance not only facilitates the expansion of insurance outreach by leveraging the wide network and credibility of the banking sector but also enhances banking profitability through diversified income streams. The analysis shows that as the banking sector deepens and expands, it creates a fertile ground for the insurance sector to flourish, and this combined advancement contributes positively to economic development.

The relationship between these sectors can also be understood in terms of supply and demand dynamics. On the supply side, stronger banking institutions are better positioned to offer insurance products through their distribution channels, especially in regions where insurance infrastructure is otherwise lacking. This facilitates access, reduces transaction costs, and encourages financial participation. On the demand side, economic growth fuelled by an efficient banking system increases household and corporate income levels, which in turn generates greater demand for risk mitigation and investment tools such as life and non-life insurance products.

These findings are highly relevant for policy formulation and institutional reforms. The observed complementarities between BSD and ISD point to the need for integrated financial

sector strategies rather than isolated interventions. Policymakers must acknowledge that a healthy and growing banking sector has the potential to stimulate insurance uptake, which in turn can support capital formation, encourage long-term savings, and enhance financial stability. Similarly, a maturing insurance market can mobilize long-term funds, reduce vulnerability to shocks, and contribute to credit risk mitigation, thereby facilitating smoother banking operations.

The study also indicates that targeted policy initiatives aimed at promoting BSD and economic growth may have a ripple effect in promoting ISD. For example, measures such as improved financial literacy, digital banking inclusion, regulatory support for bancassurance models, and rural banking penetration can simultaneously benefit both banking and insurance sectors. As the ecosystem becomes more inclusive and accessible, it broadens the customer base and builds trust, further accelerating financial deepening.

Moreover, the reverse causality is equally important. A well-developed insurance sector can positively influence the banking sector. Insurance companies often invest a large portion of their collected premiums in financial markets, including banking instruments, contributing to liquidity and stability in the financial system. They also enhance consumer resilience by providing coverage against unforeseen events, which can otherwise destabilize household finances and lead to loan defaults. This symbiotic relationship strengthens the resilience and depth of the financial system as a whole.

To achieve sustainable and inclusive economic growth, the government must take a proactive role in fostering this synergy. Promoting cross-sector collaboration through policy frameworks that encourage innovation in financial product design, streamline regulatory compliance, and support digital transformation in both sectors will be key. Public-private partnerships can be encouraged to deliver hybrid financial solutions that combine the security of insurance with the accessibility of banking services, especially in underserved areas.

Additionally, regulatory bodies such as the Reserve Bank of India (RBI) and IRDA must work in coordination to facilitate smoother operational integration of bancassurance models. Joint guidelines and data-sharing mechanisms can ensure that both banks and insurance providers operate transparently, ethically, and in the best interest of consumers. Further, incentivizing banks to actively participate in insurance distribution through policy levers can enhance bancassurance penetration.

Financial inclusion policies must also consider the specific role that bancassurance can play in reaching economically weaker sections of society. Banks already have access to rural and semi-urban populations due to previous financial inclusions. By extending insurance through these established channels, the government can ensure social protection, promote financial literacy, and support the achievement of inclusive development goals.

The findings of this study reaffirm that the banking and insurance sectors are no longer operating in isolation; rather, they are integral components of a unified financial ecosystem. Their interaction has measurable implications for macroeconomic stability, capital formation, and inclusive growth. The use of bancassurance as a delivery mechanism is an important policy innovation that can bridge institutional gaps and bring insurance within reach of millions. As India moves toward a more digitized and financially integrated economy, strengthening this linkage becomes imperative.

In conclusion, the study emphasizes the importance of designing a comprehensive and future-oriented financial policy framework that promotes the interdependence of BSD and ISD. Encouraging cooperation between banks and insurance providers not only enhances operational efficiency but also multiplies the developmental impact across sectors. As India aspires for high and inclusive economic growth, promoting such synergistic models can act as a transformative lever for achieving long-term financial sustainability, institutional robustness, and broad-based economic progress.

CHAPTER VI

CONCLUSION AND POLICY IMPLICATIONS

6.1 Recap

This study encompasses a comprehensive journey that begins with a deviation from the conventional parameters traditionally used in international insurance comparisons. Instead of relying solely on standard indicators such as Insurance Density (ID) and Insurance Penetration (IP), which may not fully capture the multidimensional nature of insurance development across countries, this research introduces a new assessment methodology—BRIP. This innovative approach facilitates a more nuanced understanding of the insurance landscape across both developed and developing economies. It enables a reassessment of global insurance positions by accounting for contextual and structural differences in economic, demographic, and financial systems that influence insurance uptake and distribution.

By employing BRIP, the study offers an alternative lens through which national insurance markets can be compared. In particular, it highlights India's relative standing in a more favorable light than traditional metrics suggest. While conventional indicators often place India in a lower tier due to comparatively modest insurance penetration rates, the BRIP framework incorporates additional factors such as market potential, population coverage, institutional outreach, and service delivery mechanisms—particularly those used in underbanked or underserved areas. As a result, India emerges with a more competitive and promising profile in the international insurance domain. This finding challenges existing narratives and paves the way for more inclusive and accurate benchmarking of insurance systems across diverse economic contexts.

Following this re-evaluation of India's global insurance standing, the study proceeds to investigate the internal drivers of the Indian insurance sector, focusing separately on the Life Insurance and Non-Life Insurance segments. The identification and empirical examination of these drivers form a core component of the research. The analysis explores how factors spanning governance, health infrastructure, and economic indicators influence insurance development. Governance indicators such as rule of law (RL), regulatory quality (RQ), political stability (PS), and control of corruption (CC) are assessed for their impact on consumer trust, institutional performance, and policy enforcement. In parallel, health-

related factors like life expectancy (LE) and current health expenditure (CHE) are examined, as improvements in these areas often signal rising awareness and demand for risk protection mechanisms. Economic variables including GDP per capita (GDPPC), inflation (INF), and share of value-added services (SVA) are also tested to evaluate how macroeconomic growth and sectoral shifts affect insurance consumption patterns.

These variables are analyzed in the context of three major insurance development indicators—ID, IP, and the expansion of Bancassurance. This multi-dimensional approach allows for a holistic understanding of how various socio-economic forces converge to shape the Indian insurance market. Particular attention is given to Bancassurance as a delivery model, given its strategic role in expanding insurance access via banking infrastructure. By integrating Bancassurance into the broader analytical framework, the study offers a wide-angle perspective that connects institutional strategy with grassroots-level insurance outreach.

The final phase of the research examines the dynamic interrelationship among Banking Sector Development (BSD), Insurance Sector Development (ISD), and Economic Growth in India. Utilizing a two-way Granger causality analysis, the study explores whether changes in one sector can statistically predict developments in another over time. This provides critical insight into the cyclical and reinforcing nature of these sectors. The results offer valuable implications for financial sector policy, indicating that strengthening one domain—such as banking—can simultaneously catalyse progress in insurance, and vice versa. This bidirectional linkage also emphasizes the role of an integrated financial ecosystem in supporting sustainable economic development.

In sum, the study constructs a complete analytical journey—from redefining global insurance comparison methodologies to examining domestic sectoral drivers, and finally, to evaluating macroeconomic interlinkages. It not only contributes a new measurement framework but also provides empirical evidence and policy recommendations that underscore the interdependence of India's banking and insurance sectors in fostering long-term economic growth.

6.2 Summary of Findings

After thoroughly reviewing the available literature on international insurance comparison, it became apparent that several critical aspects remained unaddressed or insufficiently explored. One such gap pertained to India's position in the global insurance landscape,

which continued to lag behind both developed and several developing economies. This disparity persisted despite decades of economic reforms, financial liberalization, and the coexistence of both public and private sector insurance providers in India. Traditional metrics such as ID and IP, while useful, failed to capture the full scope of India's insurance market potential and structural strengths. This limitation prompted the need for a more holistic and representative evaluation framework.

To address this gap, the first objective of the study introduced a novel methodology BRIP to assess the real position of India's insurance sector in a global context. Unlike conventional indicators that may ignore demographic scale, economic diversity, and institutional capacity, BRIP takes into account a broader set of variables that reflect the operational, demographic, and policy environments in which insurance systems function. This new assessment provided a fresh and more realistic portrayal of India's insurance development, offering not only a redefined global standing for India but also presenting a revised outlook for other developing countries. At the same time, the methodology revealed discrepancies in the perceived dominance of certain developed countries by factoring in structural inequalities and differences in market access. Consequently, BRIP challenged the conventional hierarchies in global insurance rankings and encouraged a more equitable approach to international comparisons.

The findings from the BRIP framework hold substantial implications for policy formulation and insurance market strategies. By offering a more accurate assessment of market depth, institutional readiness, and insurance outreach, BRIP provides a useful tool for both policymakers and insurance companies to design targeted interventions. These interventions could focus on underserved regions, address protection gaps, and develop products tailored to the unique risk profiles of diverse population segments.

Building upon this foundation, the second objective of the study aimed to identify the key drivers influencing the growth of insurance in India. This analysis was grounded in empirical evidence derived from robust statistical models. The study considered multiple indicators drawn from three broad dimensions—governance, health, and macroeconomic environment. These factors were examined in relation to both Life Insurance and Non-Life Insurance segments to provide a comprehensive picture.

The results revealed that ID and IP in India are significantly influenced by governance-related factors such as Regulatory Quality (RQ), Rule of Law (RL), and Control of

Corruption (CC). These governance parameters emerged as powerful determinants, suggesting that a transparent, stable, and law-abiding institutional environment promotes trust in financial institutions and encourages insurance uptake. In parallel, health indicators like Life Expectancy (LE) and Current Health Expenditure (CHE) were found to significantly impact insurance growth. Improved health outcomes and rising awareness of medical risks often lead to greater demand for risk-mitigating instruments like life and health insurance policies.

Economic variables also played a crucial role. Among them, inflation (INF) surfaced as a key determinant. While high inflation can erode purchasing power, it also prompts individuals to seek financial instruments that offer protection and stable returns—thus indirectly boosting insurance demand. The analysis further extended these variables to examine their influence on bancassurance—a model wherein banks act as distribution channels for insurance products. Bancassurance was studied for both public and private life insurance sectors. Interestingly, the results mirrored those observed in the broader insurance domain, reinforcing the idea that the same set of drivers influence both conventional insurance channels and bancassurance-based outreach. This finding confirms that integrating banking infrastructure with insurance distribution can enhance insurance penetration across different demographic and geographic segments.

The third objective of the study focused on testing the existence and direction of causality between Banking Sector Development (BSD), Insurance Sector Development (ISD), and Economic Growth using the Granger causality approach. This two-way causality analysis was crucial in determining whether changes in the banking and insurance sectors could predict changes in economic growth, and vice versa. The analysis revealed insightful patterns that reinforce the importance of sectoral interdependence. Specifically, the study found that Banking Market Structure (BMS) and Number of Commercial Bank Branches (NCB) affected both the supply side hypotheses of ID and IP. This indicates that a robust banking infrastructure and market competition enhance the supply capacity of insurance services. On the other hand, Scheduled Deposits by Banks (SDB) and Private Sector Credit (PSC) were shown to influence the demand side of insurance development, suggesting that increased financial activity and credit availability raise insurance awareness and affordability.

These findings have critical policy implications. They highlight that integrated reforms in the banking and insurance sectors can generate mutually reinforcing effects, ultimately fostering economic development. Encouraging collaboration between banks and insurance providers through bancassurance models, developing inflation-protected insurance products, and strengthening governance mechanisms can collectively enhance insurance uptake and financial inclusion. Furthermore, by understanding the causality relationships between these sectors, policymakers can design coordinated strategies to simultaneously develop the financial ecosystem and support sustainable economic growth.

In conclusion, the study traverses a multi-dimensional research trajectory—from proposing a new measurement model for international insurance comparison, to identifying sector-specific growth drivers, and finally, to establishing the dynamic linkages among banking, insurance, and economic growth. Together, these findings contribute to a deeper understanding of the Indian financial system and offer a framework for strategic planning, policy formulation, and future research in the insurance domain.

6.3 Policy Implications

In the study of first objective, it was found that the traditional methods of measurement of insurance coverage of a country, suffer from inherent disadvantages. The BRIP approach demonstrates a new strategy for worldwide insurance comparison as well as a new method for comparing insurance growth levels. BRIP method of measurement of insurance growth level is a robust method whereby the growth is measured at “economic adjusted insurance growth level”. The new assessment method surpasses all three traditional methods and provides a new outlook for a reasonable foundation for international regulation.

When the ranking of India with the help of BRIP has been conducted in this study, it is found to give a better position of the country than the traditional methods of insurance comparison. This result is true not for India but also for emerging nations and BRICS nations. With this new method of insurance assessment, which is more convincing, the policy makers will be able to take better decisions regarding the approach for growth of insurance in future.

1. Insurance sector is undergoing rapid development and hence there should be recognition for this new assessment method as although presently insurance is at a relatively higher growth level in developed nations, but insurance industry in developing nations is undergoing rapid development.

2. There is high potential for insurance growth in the developing countries and they should actively explore developing markets and insurance companies can lay stress on this new assessment method to frame policies and accordingly design marketing strategies for selling the policies.
3. The developing countries can consider adjustment and improvement of insurance measurement to have a sustainable insurance growth in long term.
4. Policies should be framed where focus of insurance comparison is not only on quantitative or economic factors but also on other factors like governance, health etc as well as qualitative factors.
5. Insurance policy makers in India also should accordingly recognise this new assessment for drawing the actual position of the country and reformulate policies suitable to the current requirements (trends) of the Indian population.

The study of major drivers of insurance (life and non-life) is sub-divided into the three main indicators for exploring the drivers for ID and IP. For bancassurance the study is categorised into public life and private life insurance.

While studying ID (for both life and non-life) for governance indicators, it is observed that RL, RQ, PS, CC are imperative amongst the other factors for spread of insurance and hence policy makers can lay stress more on these crucial measures. These factors promote a suitable environment for the insurance industry to flourish.

As there is rooted RL in the country, there can be rigorous administration of conditions to protect consumers from any sort of unfair trade practices. Banks already meeting the financial needs of the accountholders can help in communication between insurance companies and the prospective investor.

When RL is satisfactory to the citizens of a country, they can invest in life insurance policies as they trust that policies will be honored because robust RL ensures that life insurance companies are well regulated.

As for non-life insurance similarly, stringent laws and enforcement ensure higher acceptance of insurance with decreased costs for companies.

With good governance and stable government (RQ), insurance companies can easily bring up new insurance products as well as insurance solutions which strengthen the overall

market, develop it and evolve customer's needs. It prevents monopolistic practices and hence encourages competition. This leads to better services and lower prices of policies.

For life insurance RQ is important for intensifying ID, as it can foster confidence when privately placed insurance becomes easily available and that too at competitive prices. This in turn creates opportunities for new product development and attracts more customers.

Governmental insurance too RQ has an important role to play as non -life insurance from non -governmental insurance plans can have competitive premiums, product diversification faster handling of claims.

PS which promotes investor-friendly policies in the market ensures that investors have confidence in the investment made which gives them effective returns along with wealth creation. PS is particularly important for life insurance as it provides a safer environment for insurance policies as it can only then provide competitive products. This may result in reduced risk premiums making life insurance more affordable.

For non-life insurance PS leads to the creation of private wealth which demands more insurance. The environment of violence and terrorism free further pushes the need for infrastructural development which again asks for insurance for protection against risks.

CC is negatively significant for governance indicators for both life and non-life insurance. With the increase in corruption level of a country, people have more faith on non-governmental measures and hence they desire to take insurance policies on their own rather than depend on social measures.

Life insurance policy, being also a form of investment, becomes a good venture in such a situation as government provided social security measure become futile and people depend on privately purchased insurance.

For non-life insurance, with decrease in control on corruption, people want to protect assets and property from damage etc., and hence need to insure from any kind of risk. With governmental or social security measures already in bad shape, people prefer to insure from private insurance companies.

For IP for life insurance, governance indicators do not play a significant role to play as per the study, but it is found that other indicators health and economic indicators have an integral role to play.

For IP non-life insurance is boosted by measures like RL, CC, RQ and VA. RL and RQ are positively significant, whereas CC and VA are negatively.

In a country where a strong RL is enforced, insurance contracts are easily commanded, which ensures that policyholders trust the contracts for new insurance premium or higher insurance premium. Insurance companies also would like to diversify in such countries.

Strong RQ protects consumers from unfair trade practices, which may encourage people to go for insurance contracts. This leads to higher premiums collected as a percentage of GDP, indicating higher insurance penetration.

With the fall in VA, trust of common people on government-provided social security reduces. They need insurance as protection from various risks is essential too. So, to protect themselves and family members private insurance becomes the option of the people. In such situations self-provision of security becomes important which drives insurance penetration.

With decrease in CC people have higher perception of personal and economic risks, which leads them towards insurance contracts increasing the ratio of insurance penetration.

For bancassurance of life from public sector banks it is found that RL, GE and CC are significant players for governance indicators. Since it is observed that RL, GE, CC are imperative amongst the other factors for spread of bancassurance, policy makers can lay stress more on these crucial measures. These factors promote a suitable environment for the bancassurance industry to flourish or grow. Such a market enjoys operational efficiency, lower overhead costs and management of risks. The industry too stimulates financial inclusion, economic development and new-age products.

As there is rooted RL in the country, there can be rigorous administration of conditions to protect consumers from any sort of unfair trade practices. Banks already meeting the financial needs of the accountholders can help in communication between insurance companies and the prospective investor. The bancassurance sector becomes attractive to investors as good governance laws lower legal costs and disputes at the time of maturity or regarding the policy is reduced. To develop and ensure this, ombudsman services are to be introduced or made more effective.

With strong GE, insurance companies can easily bring up new insurance products as well as insurance solutions which strengthen the overall market, develop it and evolves customer’s needs. Operational risks of the banks comparatively reduce, and insurance

companies involved in bancassurance enjoy lower overheads, stable market, long term investor.

For bancassurance, the common people have trust in public banks because of their age and experience in banking sector. With the fall in corruption, this further rises and hence insurance contracts too from such banks become dependable. Consumers may have a perception of transparency in processing of claims is more dependable in public banks. These can raise the life insurance contracts from public sector banks.

For life insurance from private banks the significant factors shown here are RL, GE, PS, RQ and CC. Only CC is negatively significant.

For private sector banks, it is easier to influence customers towards life insurance when the governance indicators are strong. This is so because private bank customers can get a variety of insurance policies to suit their needs.

Strong RL ensures insurance contracts are enforceable, invoking consumer confidence in private life insurance policies. Disputes are also resolved faster and hence the willingness of the common people towards insurance from private banks.

Government initiatives include financial literacy programs setting the tone for private insurance policies too. It can also promote economic stability encouraging insurance for a longer period as well as investment in life insurance from private banks.

Private banks can enjoy the benefits of PS as it fosters overall growth which in turn promotes insurance from private banks. With a stable political environment there is more willingness amongst the people for opting insurance.

Strong RQ, helps in reducing fraud, enhanced market confidence, variety in insurance products which boosts insurance from private banks. RQ ensures stable markets too, which is the need for insurance policies linked to the stock market, mostly offered by private banks.

CC is negatively significant, which implies that with rise in corruption level, generally people want to seek protection through insurance and for financial security they opt for life insurance. Public banks too are badly affected due to corruption, and this gives an opportunity for private banks to satisfy people and turn their minds towards insurance.

When health indicators are to be taken into consideration, the first initiative that the companies can take is regarding LE. LE being longer now, there should be health awareness

programs conducted by the companies. Due to longer LE, and preventive health care, claims for life insurance reduce. This leads to higher profitability and longer sustainability for the insurance companies. Insurance with the help of banks makes insurance easier to reach a wide range of people. With a larger population included in insurance coverage, insurance companies can have more comprehensive and competitive but customer friendly policies. Banks can provide information to the insurance companies regarding the database of its account holders. Through banks, insurance companies can understand the diversified needs of people's health insurance.

Insurance companies should also be research driven where technological advancements in the health care industry can be utilized and its results passed on to the customers to reduce health care expenditure. This can also have the potential effect of lowering the premium to attract new customers or raising the coverage level. This can nurture the insurance industry.

When IP is studied after ID to have a holistic coverage of the insurance industry, for economic indicators, it is shown that the significant measures are GDPPC, INF SVA.

While studying ID (for both life and non-life) similar significant factors were established by the study.

IP surges when GDPPC grows as people have more disposable income with them. Since there is financial literacy, it encourages people to get insured. Thus, insurance companies should target those countries which have high potential of growth in GDP to boost growth of insurance for both life and non-life insurance.

Growth rate in GDP fuels insurance sector by increasing the disposable income in the hands of the people. As and when the insurance companies can estimate a probable growth in GDP, they must offer new and improved policies to the people who might not be insured or are underinsured. Insurance companies should target newer areas in such times to tap the funds available with the people. To raise bancassurance penetration and market share, banks should reach out to all strata of people to raise awareness about insurance as well as raise profitability. Those who are not yet introduced to insurance investment as a tool of financial planning, banks can integrate such products into their financial plan by making such policies attractive to them. With diversified products and growth in savings of the people, insurance companies capture a larger market.

The impact of INF cannot be avoided, since it's beyond control of policyholders or insurance companies. But insurance companies can launch dynamic pricing models, that harmonize with inflationary swings, to attract customers even during inflationary periods. There can be options for the investor to pay premium at flexible times (index-linked premium payment) to adjust with inflation. This helps in boosting customer confidence along with retaining smooth cash inflow for the insurance companies. Similarly, banks can be influenced to introduce or promote such inflation-indexed products too which have the capacity to raise the profits of banks and insurance companies. Since such products attract new investors, banks can select such customers from their database who can be suitable to such policies.

Collaboration between banks and insurance companies to provide insurance to the common people adds to the service value in the economy. With a broader market base the insurance companies should tap different sources to reach the investors. The customers should be provided with better insurance products which can draw higher customer satisfaction as well as long-term commitment to investment.

For the final objective in the analysis for impact of ID through bancassurance on economic growth in India, four dimensions have been selected. These four dimensions being BMS, NCB, SDB and PSC. The four dimensions in their very own way, impact ID through bancassurance which results in economic growth for India.

6.3.1 Broad Money Supply (BMS)-Insurance Density (ID) Relationship

This relation amplifies cash inflow into the economy which allows banks to have more liquid fund for lending and investment. BMS counterbalances the economy which boosts the confidence of the customers and businessmen alike. This motivates them for insurance including bancassurance. The insurance companies too get a wider customer base from the banks to display innovative products to the banks customers which in turn again stimulates economic development.

From the study an important policy which results is that for ensuring this cycle the monetary policies of the government that nurture bancassurance should be practiced in the economy. This uplifts liquidity further to expand insurance market. Banks should also manage the liquidity now available effectively to support bancassurance growth. The findings suggest that broad money supply plays a catalytic role in promoting bancassurance and, by extension, the insurance sector. To harness this relationship, the following policy measures are recommended:

1. **Monetary Policy Alignment** – The RBI should maintain a balanced monetary stance that ensures adequate liquidity in the banking system. Stable and predictable liquidity conditions encourage banks to actively participate in bancassurance activities.
2. **Liquidity Utilization Guidelines for Banks** – Regulatory frameworks should encourage banks to allocate a portion of their liquid funds specifically towards financing and promoting bancassurance-related initiatives, such as developing sales channels, training staff, and upgrading technology for insurance distribution.
3. **Product Innovation Incentives** – Policymakers should create incentives—such as tax benefits or reduced compliance hurdles—for banks and insurance companies that collaborate to introduce innovative, customer-centric bancassurance products tailored to different market segments.
4. **Customer Awareness Campaigns** – Public–private partnerships should be initiated to conduct nationwide awareness drives, informing customers about the benefits of purchasing insurance through banks. This will leverage the trust and reach of the banking network to boost insurance penetration.
5. **Monitoring and Evaluation Mechanisms** – A dedicated monitoring framework should be established to evaluate the impact of broad money supply on bancassurance growth, ensuring timely policy adjustments when needed.
6. **Support for Rural Bancassurance Expansion** – Special liquidity support or credit lines can be provided to banks expanding bancassurance into underserved rural and semi-urban areas, thereby widening financial inclusion and insurance coverage.

6.3.2 Savings Deposit with Commercial Banks (SDB)-Insurance Density (ID) Relationship

With an increase in **SDB,** banks can diversify into the business of cross-selling insurance products too. Banks with higher savings enjoy consumer confidence as the customers can reap its benefits in various ways. The surplus funds allow the banks to invest the same into diversified areas and bancassurance is one such profitable area. With the increase in SDB, bancassurance too gets a boost. The SDB can also be utilized for other lending areas or as investment Thus with surplus SDB, a bank can spread its avenues, which promotes economic growth.

The results of the study can be given a shape of policy making by the authorities. The banks should encourage savings amongst customers (both new and old). The unbanked people can be included in the banking system by organizing awareness programs in such areas. Promotional campaigns can be organized where insurance products can be introduced to the customers to enhance the knowledge base. From such campaigns too insurance products can be sold, which helps in bancassurance. Banks can offer higher rates on savings to encourage the same amongst the account holders. Banks can promote insurance products by encouraging the account holders to invest the same into insurance products. When banks have more funds banked with them, it can be utilised as capital to lend or invest in diversified sectors. This results into a stronger base for the banks and simultaneously promotes economic stability and growth.

The study shows the significant role of SDB in strengthening the financial capacity of banks and enabling the growth of bancassurance. Based on these findings, the following policy recommendations are proposed:

1. **Savings Mobilization Programs** – Banks should actively design and implement targeted programs to encourage higher savings among existing customers and attract new depositors. Special savings schemes, loyalty rewards, and tiered interest rates can be introduced to incentivize deposits.
2. **Financial Inclusion Initiatives** – Authorities should collaborate with banks to bring unbanked and underbanked populations into the formal banking network through community outreach, mobile banking services, and simplified account opening procedures.
3. **Awareness and Promotional Campaigns** – Nationwide and regional campaigns should be organized to educate customers about the benefits of both savings accounts and insurance products offered through bancassurance channels. These campaigns can serve a dual purpose enhancing financial literacy and generating bancassurance sales.
4. **Linking Savings to Insurance** – Banks can design integrated products that link savings accounts to micro-insurance or bundled insurance plans, enabling customers to seamlessly transition from depositors to insurance policyholders.
5. **Interest Rate Incentives** – Regulatory guidelines can allow banks to offer higher interest rates or loyalty bonuses on savings accounts for customers who also purchase insurance products through the bank.

6. **Product Diversification and Innovation** – Banks should be encouraged to use surplus SDB to develop diversified financial products, including tailored insurance plans for different demographic and income groups.
7. **Digital Integration** – Policymakers should promote digital banking platforms that enable customers to open savings accounts, track balances, and purchase insurance products in a single interface, thus enhancing convenience and adoption rates.
8. **Performance-Based Incentives for Banks** – Government and regulatory bodies can consider offering fiscal or operational benefits to banks that demonstrate strong performance in savings mobilization and bancassurance growth.
9. **Rural and Semi-Urban Outreach** – Dedicated liquidity support, credit lines, and marketing resources should be provided to banks expanding bancassurance operations in rural and semi-urban regions, where insurance penetration remains low.

6.3.3 Number of commercial bank branches (NCB)-Insurance Density (ID) Relationship

Another dominant factor for promoting bancassurance is **NCB**. It is well understood that with the increase in number of branches a bank has, it can serve higher number of customers and reaches out to remote and backward areas too. More customers being included within the banking arena helps not only banks but also customer engagement opportunities are also raised. With more account holders for a branch, insurance products can be introduced to these people easily through banks.

From the analysis a policy can be framed to utilize the results into a meaningful impact.

With a greater number of bank branches in a country, it stimulates greater financial inclusion and promotes development of the economy. With greater number of bank branches in a country, it restores local economies by maintaining them with financial independence.

When branches of a bank are greater in number, allied products of the bank can also be promoted to its existing account holders. Businessmen interested in borrowing loans can be offered insurance to cover the business assets.

With higher bank branches, rural and remote areas too are covered. In these areas there is demand from small and medium-sized enterprises for credit. Banks can take this opportunity to offer them comprehensive and tailor-made insurance packages.to cover their assets. There

should be a strong and well framed risk measurement structure to ensure that insurance policy covers any credit extension and eases out any risks for both banks and business.

The analysis highlights the importance of the Number of Commercial Bank Branches (NCB) as a driver of bancassurance growth. A wider branch network not only enhances customer reach but also strengthens financial inclusion and economic development. Based on the findings, the following policy measures are recommended:

1. **Branch Network Expansion Strategy** – Regulatory authorities should encourage banks to expand their branch networks, especially in underserved rural and semi-urban areas, to maximize financial inclusion and open opportunities for bancassurance.
2. **Integration of Bancassurance in Branch Operations** – Banks should incorporate bancassurance as a core offering at all branches, ensuring that insurance products are part of the standard financial services package for account holders.
3. **Targeted Rural Outreach** – Rural branches should be equipped with specially designed insurance products tailored to the needs of farmers, small traders, and rural households, including micro-insurance options.
4. **Local Economic Revitalization** – New bank branches should be positioned not only as financial transaction points but also as hubs for promoting local economic development through accessible credit, insurance, and savings products.
5. **Customer Engagement and Education** – Branch staff should be trained to actively educate customers about the benefits of insurance, particularly in regions where awareness levels are low.
6. **Technology-Enabled Remote Service** – In areas where physical branch expansion is limited, mobile banking units or digital kiosks can be deployed to offer core banking and bancassurance services, ensuring consistent coverage.
7. **Performance Monitoring** – Authorities should periodically evaluate the impact of branch network growth on bancassurance penetration, adjusting policy measures to maintain balanced development.

6.3.4 Private Sector Credit (PSC) - Insurance Density (ID) Relationship

PSC by banks helps in business growth and investment which calls for higher insurance needs of the people. The risk management also has to be done by the business houses which demand comprehensive and holistic insurance coverage.

When private sector is extended credit, it encourages entrepreneurship or diversifies a business which stimulates economic growth. Such long -term economic stability can be brought in if with the help of insurance, business sustainability can be achieved with a comprehensive risk management plan.

Insurance companies can prepare such policy packages with both credit and insurance to ensure that businessmen who come for borrowing loans are covered by appropriate insurance policy. The loans to the private sector whether for short –term or long term can be packaged in such a way that it is tailor made to suit the needs as well as covered by suitable insurance. PSC by banks plays a vital role in driving business expansion, investment, and entrepreneurship, all of which increase the demand for comprehensive insurance solutions. The linkage between credit and risk management presents significant opportunities for bancassurance. The following policy measures are recommended:

1. **Credit-Linked Insurance Bundling** – Banks and insurance companies should jointly design loan products that automatically include relevant insurance coverage, ensuring that borrowers' businesses, assets, and liabilities are adequately protected.
2. **Tailor-Made Insurance Solutions** – Both short-term and long-term credit facilities should be accompanied by insurance plans specifically tailored to the borrower's industry, scale, and risk profile.
3. **Promotion of Risk Management Awareness** – Banks should educate borrowers on the importance of risk mitigation, highlighting how insurance can safeguard business continuity in case of unforeseen events.
4. **Sector-Specific Insurance Offerings** – Specialized insurance products should be developed for high-risk sectors such as agriculture, manufacturing, and exports, linked directly to PSC disbursements.
5. **Support for Start-Ups and SMEs** – Special PSC schemes for start-ups and small and medium-sized enterprises (SMEs) should be packaged with affordable insurance coverage to foster sustainable entrepreneurship.
6. **Risk-Sharing Mechanisms** – Partnerships between banks, insurance companies, and government agencies can create partial risk-sharing arrangements, reducing the exposure of both lenders and borrowers.
7. **Monitoring and Compliance Framework** – A regulatory framework should ensure that credit-linked insurance packages meet minimum coverage standards and are implemented transparently.

6.4 Scope for Further Research

While the present study has endeavored to provide a comprehensive overview of the bancassurance landscape in India and its association with broader financial sector dynamics, there remain certain inherent limitations due to data constraints, scope boundaries, and methodological focus. These limitations, however, provide fertile ground for future research, which can extend the findings of this work and build a more holistic understanding of the evolving role of bancassurance in India's financial system. The scope for further research can be broadly classified into three interrelated domains: (1) data extension and inclusion of non-life insurance, (2) exploration of additional determinants influencing the insurance sector, and (3) widening the impact framework beyond economic growth.

1. Inclusion of Non-Life Insurance Sector in Bancassurance Analysis

One of the principal limitations encountered in the course of this study was the non-availability of consistent and reliable data concerning the non-life insurance sector over the entire study period. As a result, the empirical analysis had to be confined largely to the life insurance segment of bancassurance, thereby omitting a critical component of the insurance industry.

The non-life insurance sector, encompassing segments such as health, motor, travel, home, and commercial insurance, plays an equally significant role in ensuring risk protection and financial stability for both individuals and businesses. In recent years, the non-life segment has seen rapid growth, particularly in the wake of increasing awareness about health insurance (especially post-pandemic), and greater regulatory push towards insuring assets and businesses. According to the IRDA, the general insurance sector registered a growth of approximately 16.36% in gross direct premium income in the year 2023–24 compared to the previous fiscal year. This demonstrates the rising relevance of this segment in the Indian insurance market. Furthermore, public and private sector insurers have been increasingly leveraging bancassurance channels to distribute general insurance products. This is especially visible in the health insurance and motor insurance sub-segments, where banks act as critical points of sale. Several large Indian banks have forged strategic partnerships with general insurance providers, including multiple non-exclusive tie-ups post the IRDA s 'open architecture' policy reform. Therefore, a significant opportunity exists to undertake a dedicated, comparative analysis of bancassurance effectiveness and performance in the non-life sector—particularly comparing public vs private sector collaborations.

Such an extension would not only fill a major gap in the literature but also offer a more balanced view of the bancassurance model's role across the insurance spectrum. Comparative performance indicators such as premium mobilization, claims ratio, product penetration, persistency, and customer acquisition cost in life vs non-life bancassurance channels can provide deeper insights into the strategic alignment between banks and insurers.

2. Incorporation of Broader Drivers Influencing the Insurance Sector

Another potential area for further research lies in the inclusion of a more diverse set of variables that serve as drivers for insurance sector development. While the present study has focused on a limited set of macroeconomic and institutional factors (with special attention to the role of bancassurance and economic growth), the insurance ecosystem is influenced by a broader range of structural, behavioural, regulatory, and technological variables that warrant empirical investigation. Some the aspects could be based on demographic factors, regulatory changes, changes in the banking sector too.

By extending the model to include these multidimensional drivers, future researchers can provide a more granular understanding of the factors contributing to the evolution and effectiveness of bancassurance as a distribution channel.

3. Expanding the Impact Analysis Beyond Economic Growth

The current study has primarily examined the impact of bancassurance and insurance sector development on economic growth, using GDP as the main macroeconomic indicator. While this is a valid and critical linkage, the reciprocal relationship namely the impact of economic growth and financial sector expansion on insurance development also warrants detailed investigation.

- Financial inclusion: Bancassurance can act as a vehicle for increasing insurance penetration in underbanked regions. Studies could assess how bancassurance is contributing to inclusive growth by bringing insurance to marginalized populations.
- Risk mitigation and resilience: Insurance plays a key role in building economic resilience against disasters, health emergencies, and climate events. The contribution of bancassurance in improving social protection systems can be studied, especially in rural or disaster-prone areas.

- Household savings and investment patterns: Life insurance, often sold through banks, is a significant form of long-term household savings in India. Its impact on national savings rates and capital formation can be evaluated.
- Employment generation and skill development: The bancassurance sector also generates employment across sales, operations, underwriting, and customer service roles. Future studies may assess the employment elasticity of the sector.

Additionally, the scope of research can be expanded geographically to include cross-country comparisons, particularly within South Asia or emerging markets. This would allow benchmarking India's bancassurance model against countries with similar economic structures and regulatory frameworks—such as BRICS nations or G7 countries.

6.5 Conclusion

The present study provides a foundational understanding of the bancassurance model's trajectory and influence within India's insurance sector. However, to fully unravel the multifaceted nature of bancassurance, it is essential for future research to overcome the existing data and scope limitations. Expanding the analytical lens to include the non-life insurance segment, incorporating a broader array of explanatory variables, and assessing multidirectional impacts beyond economic growth will not only enrich the academic discourse but also provide policymakers and practitioners with actionable insights. As the insurance and banking sectors continue to converge through technology, regulatory evolution, and customer-centric models, the relevance of such extended research will only grow in the years to come.

In conclusion, the analysis highlights how banking infrastructure, liquidity, credit expansion, and customer trust collectively shape the growth of bancassurance, making it a pivotal distribution channel for insurance products in the modern financial ecosystem. These findings offer not only academic value but also practical implications for industry stakeholders. However, to fully unravel the multifaceted nature of bancassurance, it is essential for future research to address the limitations of the current study, particularly in terms of data availability and scope. The inclusion of the non-life insurance segment, which has been relatively underexplored in the context of bancassurance, would provide a more holistic view of the sector's operational dynamics and market potential.

Furthermore, expanding the analytical framework to incorporate a broader array of explanatory variables—such as the role of digital transformation, customer engagement

strategies, regional and rural outreach programs, the evolving regulatory environment, and competitive pressures—would significantly enrich the robustness and relevance of future studies. Such research could also explore the long-term sustainability of bancassurance models in light of emerging Fintech partnerships, and the increasing importance of integrated financial solutions.

Beyond assessing direct contributions to economic growth, future studies should examine the multidirectional impacts of bancassurance on social welfare, financial inclusion, disaster preparedness, and risk resilience, particularly in underserved regions. This would help policymakers craft strategies that leverage bancassurance not only as a commercial model but also as a vehicle for inclusive development. As the insurance and banking sectors continue to converge through advancements in distribution channels, customer-centric product innovation, and data-driven decision-making, the relevance of such extended research will only grow in the years to come.

A deeper, more holistic exploration of bancassurance has the potential to strengthen evidence-based policymaking, shape sustainable business models, and foster economic stability. By aligning industry practices with broader socio-economic objectives, bancassurance can serve as a bridge between financial security and economic empowerment, ultimately contributing to India’s long-term developmental aspirations.

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ANNEXURE

Table A1: Table showing the sources of variables used in the study.

Variable	Variable Definition	Source
Premium, ID, IP	Insurance Data on India. Life Insurance Data is in US $(in million) Non-life (in US$ million) includes General insurance and Standalone health insurers Insurance density is measured as ratio of premium (in US dollar) to total population. Insurance penetration is measured as ratio of premium (in US dollars) to GDP (in US dollars) (expressed in %)	IRDA Annual Report
Insurance Data (Insurance Premium)	G7 and BRICS Nations Insurance Data (Total Gross Insurance Premium - Annual in Million US $)	Swiss Re (Sigma Reports)
Voice and Accountability (VA)	Freedom of expression	World Bank
Political Stability and Absence of Violence/Terrorism (PS)	Likelihood of Political Instability	World Bank
Government Effectiveness (GE)	Quality of public services	World Bank
Regulatory Quality (RQ)	Sound policies of the government and promote private sector development	World Bank
Rule of Law (RL)	Confidence in and abide by rules of society	World Bank
Control of Corruption (CC)	Public power exercised for private gain	World Bank
Life Expectancy (LE)	Length of life (in number of years)	World Bank
Current health expenditure (CHE)	Cost involved for health maintenance	World Bank
Growth Rate of GDP(GDPPC)	GDP per capita, PPP (constant 2015 international $)	International Comparison Program, World Bank | World Development Indicators database, World Bank |

Variable	Variable Definition	Source
		Eurostat-OECD PPP Programme.
Inflation (INF)	Inflation, GDP deflator (annual %)	World Bank
Real Interest Rates (RINT)	Real Interest Rates (%)	World Bank
Service Value Added (SVA)	Services etc., value added (% of GDP)	World Bank
GDP	Per capita economic growth; percentage change in per capita gross domestic product	World Bank
LID	Life insurance density: direct domestic life insurance premium per capita in USD	IRDA
NID	Non-life insurance density: direct domestic non-life premium per capita in USD	IRDA
LIP	Life Insurance penetration: direct domestic life premium expressed as a percentage of GDP	IRDA
NIP	Non-life insurance penetration: direct domestic non-life premium as a percentage of GDP	IRDA
PSC	Private sector credit: expressed as a percentage of GDP	World Development Indicators. World Bank
SDB	Savings deposits with commercial banks(Indian and foreign banks) expressed in (₹ In crore)	Reserve Bank of India (RBI) Handbook of Statistics.
NCB	Population group -wise of number of branches of scheduled commercial banks	Reserve Bank of India (RBI) Handbook of Statistics.
BMS	Broad Money Supply: expressed as a percentage of gross domestic product	World Development Indicators. World Bank

Table A2: Tables showing correlation matrix of the Governance, Health and Economic Indicators

Correlation Matrix

1. GOVERNANCE INDICATORS

Table: Correlation Matrix of Governance Indicators (obs = 24)

	LN_VA	LN_RQ	LN_PS	LN_RL	LN_GE	LN_CC
LN_VA	1.00	-0.91	-0.79	-0.27	0.23	0.40
LN_RQ	-0.91	1.00	0.83	0.12	-0.27	-0.58
LN_PS	-0.79	0.83	1.00	0.67	-0.39	-0.66
LN_RL	-0.27	0.12	0.67	1.00	-0.61	0.08
LN_GE	0.23	-0.27	-0.39	-0.61	1.00	0.22
LN_CC	0.40	-0.58	-0.66	0.08	0.22	1.00

2. HEALTH INDICATORS

Table: Correlation Matrix of Health Indicators (obs = 24)

	LN_LE	LN_CHE
LN_LE	0.85	---
LN_CHE	---	0.78

3. ECONOMIC INDICATORS

Table: Correlation Matrix of Economic Indicators (obs = 24)

	LN_GDPPC	LN_RINT	LN_INF	LN_SVA
LN_GDPPC	1.00	-0.45	0.13	1.00
LN_RINT	-0.45	1.00	-0.33	-0.44
LN_INF	0.13	-0.33	1.00	0.13
LN_SVA	1.00	-0.44	0.13	1.00