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A Critical Review of the GST Exemption on Health and Life Insurance Policies in India: Evidence from Econometric Analysis of Insurance Penetration and Economic Growth.

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Abstract

Indeed, the reform of the Goods and Services Tax (GST) implemented in India in 2017 has altered the system of taxation through the indirect taxation by introducing a single national taxation system. Although GST has increased tax efficiency and compliance, its implication on the insurance industry has raised a lot of policy issues. Health and life insurance premiums are now charged at 18 percent GST, which makes them more expensive to cover insurance coverage to the consumers. Considering that the insurance penetration rate in India is relatively low as compared to that of most countries in the world, an issue of policy GST exemption of insurance products has been recently taken into consideration by policy-makers in order to enhance affordability and financial inclusion. This paper critically examines the economic repercussion of GST of health and life insurance policies in India. The study uses regression analysis, the Johansen cointegration tests, and Vector Error Correction Modelling (VECM) to test the relationship between taxation policy and insurance penetration and economic growth using secondary data and an econometric dataset of 200 observations. The empirical findings suggest that the cost of insurance premiums has a significant adverse effect on the insurance penetration whereas the economic growth is positively related to the insurance penetration. The results of cointegration indicate that there is a long-term equilibrium relationship between the development of the insurance sector and the growth of the economy. The paper concludes that specific GST changes like lower tax on crucial insurance products can be used to improve financial inclusion without compromising financial sustainability. The results are added to the literature on the taxation policy and the development of the financial sector in the emerging economies.

Keywords: GST, Insurance Taxation, Insurance Penetration, Economic Growth, Financial Inclusion

1: Introduction

This was a historical development in the financial and economic control of India with the introduction of the Goods and Services Tax (GST) in India in July 2017. GST was an ad hoc regime of indirect taxation, which once had incorporated service tax, value added tax (VAT), central excise duties, and various state level taxes. Before this reform, taxes were imposed cascading effects whereby taxes were levied on current taxes, thus making the effective cost of goods and services higher and making it more complex to comply with the taxation structure to businesses (Government of India, 2018; Kumar and Singh, 2019). The GST reforms were meant to overcome these structural inefficiencies and to evolve an integrated tax regime in the nation. GST was aimed at improving tax compliance, cutting administrative complexities, increasing transparency, and establishing a smooth market in the country by merging different types of indirect taxes into one system (Rao, 2017; Reserve Bank of India, 2023). On a macroeconomic level, GST reform was meant to enhance fiscal control, expand the tax base, and enhance collection of revenue to the government (IMF, 2022; Government of India, 2023).

Although GST has largely been seen as a major measure towards tax rationalization and economic integration, its effects have had different implications based on various areas of the economy. One of the sectors that will be impacted due to GST reforms is the insurance sector due to its two functions in the financial markets and the social security systems. The insurance services help people and companies to stay financially stable by helping them cope with risk, and mobilize savings over the long term which may be invested in productive activity (Arena, 2008; Outreville, 2013). The insurance industry is thus not only purposeful as a financial intermediary, but also as an instrument towards improving economic resilience and exposing the economy to financial shocks. With such functions, any policy decision impacting the insurance industry has extensive consequences in the economic development and social welfare (Ward and Zurbruegg, 2000; Pradhan et al., 2014).

The GST system treated the services of insurance as financial services and charged the standard tax of 18 percent. This was a significant improvement over the previous service tax system, where the insurance services were subject to a tax of about 15 percent (Government of India, 2017; Kumar and Singh, 2019). Though the difference might seem moderate in percentage rates, the tax rates growth has a direct effect

on the price of the insurance policies bought by the consumers. Insurance premiums are a definite price on the financial protection and therefore, this is sensitive to taxation policies since the expenditure decision of the households is directly influenced. In case the taxes imposed on the insurance services are high, the tax advantage goes up to the policyholders who are generally charged higher premiums (Cummins and Venard, 2008; Sharma, 2022). In turn, insurance products possess an immediate effect on the policies of taxation affecting their affordability and accessibility.

The effects of GST on the insurance premiums can be explained using a simple example. Take the case of life insurance premium of ₹10,000/year. With the present GST structure, the policy holder will have to pay the tax of 18 percent as a supplement, which will be ₹1,800. This leaves the overall policy cost to ₹11,800. Although this increase can be viewed as comparatively minor in the case of households with higher incomes, it can be a big financial burden to middle-income and low-income families. In a society with a relatively high level of disposable income among the different socio-economic classes, even small changes in the price of premiums may affect how consumers respond to insurance purchases (Beck and Webb, 2003; Prasad, 2023). Accordingly, this taxation of the insurance services under the GST has brought forth a lot of controversy among the policy makers, industry professionals and financial analysts.

As time has gone by, issues about the cost of insurance plans have been escalating more especially due to the escalating cost of healthcare and the growing economic uncertainty. The health insurance in particular has taken a greater significance with the medical cost in India soaring ever higher. Out-of-pocket medical costs continue to be some of the highest in the world, and cause significant financial strain on families (World Bank, 2021; Bhat & Jain, 2020). One way of reducing these risks is through insurance cover, which offers economic cushion against a medical crisis. Nonetheless, households can delay or even evade buying insurance cover when the price of insurance premiums is increased as a result of taxation policies (Sharma, 2022). In light of such a challenge, policymakers and industry stakeholders have started to debate the potential of cutting down or even doing away with GST imposed on health and life insurance policy.

During more recent policy discussions, especially those held around 2024 and 2025, debate in the GST

Council has been on the possible advantage of a tax credit on insurance products. Those who support GST exemption suggest that insurance policy must be regarded as vital financial services and not luxury taxed goods. In this sense, a policy to cut or abolish GST on health and life insurance premiums might considerably affect affordability, the adoption of insurance, and financial inclusion (IBEF, 2024; NITI Aayog, 2023). Besides, increasing insurance would decrease the poverty of households and enhance the overall financial stability of the economy. Conversely, the fiscal implications of such reforms have to be put into consideration by the policymakers as well. GST is a significant revenue-generating activity of the government, and any type of exemption granted to a large industry like insurance has to be looked into seriously in the context of its possible effects on the national purse (Government of India, 2023).

The low insurance penetration in India relative to the international standards is one of the key issues that the policy debate is based on. Insurance penetration which is often indicated as the proportion of insurance premiums to gross domestic product (GDP) is a significant measure of the level of insurance adoption within an economy. Although the financial sector of India has grown and the insurance markets have been expanded through the liberalization policies in the early years of the 21st century, the insurance penetration is at a low level. Regulatory statistics reported by the Insurance Regulatory and Development Authority of India (IRDAI) show that the insurance penetration in India is at the moment at about 3.7 percent of GDP (IRDAI, 2023). Compared to it, the average in the global context is estimated at approximately 7.3 percent, which means the insurance market in India is underdeveloped compared to global standards (Swiss Re Institute, 2023).

The insurance penetration is relatively low and this indicates that a big percentage of the Indian population is not insured or underinsured. This puts the households at high financial risk especially when there is an occurrence of medical emergencies, accidents or other unexpected economic shocks. The inadequate insurance cover may also contribute to income inequality, because financially human beings are less equipped to absorb un-foreseen costs (Outreville, 2013; Haiss and Sumegi, 2008). Against this backdrop, enhancing the insurance penetration is also a well-known policy goal of enhancing financial inclusion and economic stability.

The recent developments in terms of insurance penetration also depict the problems the Indian insurance industry is going through. Despite a moderate growth in the industry in the initial years after the liberalization of the market, the industry has been registering slow growth in the recent years. The table below gives some data on the insurance penetration in India, with selected data on both life and non-life insurance.

Table 1

Insurance Penetration in India

Year	Insurance Penetration (% of GDP)	Life Insurance	Non-Life Insurance
2019	3.8	2.9	0.9
2021	4.2	3.2	1.0
2023	3.7	2.8	0.9
2025	3.7	2.7	1.0

Source: IRDAI Reports

The data suggest that the insurance penetration has been slightly higher in the beginning of 2020s, but the general level of it is relatively stable. Specifically, life insurance penetration has been experiencing slow downward trend over the past years, whereas non-life insurance penetration has depicted minimal or no changes. These trends present critical questions on why the insurance is adopted in India. Taxation policies that influence the premiums have been one of the subjects of significant interest among the potential variables that determine insurance demand (Beck and Webb, 2003; Pradhan et al., 2014).

The low rate of insurance penetration implies that affordability is a major limitation in increasing insurance cover. Increased effective price of insurance products through taxation policies leads to consumers viewing insurance as an avoidable or unnecessary cost. Consequently, due to this, households might be more inclined to cover other financial obligations like housing, schooling, or household spending instead of being insured (Bhat & Jain, 2020). This reaction of behavior may be of great restriction to the development of insurance markets.

Realizing these issues, recent policy deliberations in the GST Council have taken into consideration the

issue of supplying or putting away GST in individual health and life insurance coverage. Such reforms would aim at reducing the premiums thus motivating more households to buy insurance cover. The proponents of this policy suggestion state that insurance products will offer necessary financial security and hence should be tax-advantaged (NITI Aayog, 2023). Also, the increase in insurance options may bring larger economic impacts through the enhancement of financial security and a decrease in the load on government social insurance programs.

Nevertheless, the possible advantages of GST exemption have to be also discussed in connection with fiscal considerations. Insurance policies should be exempted of GST because it will decrease the tax revenues to the government. Considering the significant role of GST as one of the primary sources of government income, government officials need to thoroughly evaluate the potential social and economic advantages of higher insurance coverage against the risk of revenue loss (Government of India, 2023; IMF, 2022).

It is based on this background that the current study aims at assessing the economic effects of GST taxation on health and life Insurance policies in India. In particular, the study focuses on analyzing the correlation between the policy of taxation and insurance penetration and macroeconomic growth. The research will employ econometric models of analysis in secondary data to offer empirical evidence about the impact of taxation policy on the development of the insurance market and the economy at large. Based on this analysis, the paper will add to the current policy debate about the possible application of GST reforms to further financial inclusion and reinforce the Indian insurance sector.

REVIEW OF LITERATURE

Taxation Policy and Insurance Demand

Taxation policies are important in influencing consumer behavior on financial products like insurance. Indirect taxes have been a well established factor in the field of public finance and financial economics because this taxes adds extra cost to the effective cost of services and hence this cost can potentially affect the consumer demand. The insurance products that have generally been viewed as discretionary financial instruments are especially vulnerable to taxation policy changes since the policies directly influence the cost of the premiums and the

household spending choices. When it is high indirect taxes imposed on the insurance services, the added tax burden is normally transferred to the consumers in terms of higher premiums affecting the opportunity and affordability of insurance cover (Cummins, and Venard, 2008; Beck and Webb, 2003).

According to Cummins and Venard (2008), insurance taxation is important in the development of insurance markets since it determines the price elasticity of the insurance products. The focus of their study was that an increased taxation on the insurance premiums would deter the people to buy the insurance cover especially in the developing economies where the household income is still relatively limited. The authors also emphasized that taxation can affect consumer demand as well as strategic behaviour of insurance companies. Increased taxation costs of insurance services can also lead to households putting off the purchase of insurance policies or lessening the amount of coverage they have characterized by purchases. Consequently, the taxation policies have the potential to dramatically influence the growth of the insurance markets and the financial protection prevalence in an economy.

Outreville (2013) presented an in-depth overview of the existing empirical studies investigating the interconnection, which exist between insurance markets and economic development. The paper examined over eighty empirical studies and determined that the insurance penetration is closely related to the economic development, regulatory frameworks, and tax policy. Outreville notes that the insurance services registered in countries where favourable tax policies are applied are more likely to cover a high level of insurance. Such policies can be tax deductions of the insurance premium or lower taxation or exemption of certain insurance cover like a health insurance cover. Such policies will boost the demand in insurance products and help to increase financial inclusion by reducing the cost of the insurance cover.

On the same note, studies looking at the factors of insurance consumption have revealed that taxation policies have significant effects in the demand of insurance. In their cross-country study of life insurance consumption, Beck and Webb (2003) determined taxation incentives to be a key factor that determined insurance adoption, by countries. They have found that tax benefits in life insurance policies make households invest in insurance products as part of long-term financial planning. On the other hand, lack of tax

incentives or rather an increase in tax rates could decrease consumer interest in acquiring insurance cover.

The studies which have been conducted recently have also highlighted the importance of taxation policies in influencing financial inclusion in the emerging economy. Sharma (2022) examined how taxation policies affect the affordability of insurance in developing nations and discovered that when taxes on insurance premiums are increased above the normal level, it may deter low-income households to buy insurance products. The paper has indicated that in other countries like India, where income inequalities still play a huge role, even small changes in the price of the premiums can have a big effect on the choices made by consumers in relation to insurance purchase.

The other empirical researches on the effects of taxation on insurance markets have indicated that the decrease in tax burdens can boost the uptake of insurance. In a study of how taxation affects the demand of insurance in rising economies, Prasad (2023) found out that tax exemption or lower tax rates on the purchase of essential financial services may greatly motivate households to buy insurance cover. The study suggests that financial resilience can be enhanced by implementation of policies that decrease the financial cost of insurance premiums to increase insurance coverage among the most at-risk populations.

On the whole, the literature indicates that taxation policies can have a prominent influence on the insurance demand, affecting the household financial choices and the development of the insurance markets in general. A high taxation will reduce market growth by making insurance products more expensive, whereas favourable taxation policies can make insurance more affordable, encourage greater insurance uptake, and result in financial inclusion.

GST Reform and the Financial Services Sector

The implementation of Goods and Services Tax (GST) in India was one of the significant structural changes that were to create a system of indirect taxation in the country that is simpler. Before the introduction of GST, the tax system in India was made up of numerous indirect taxes levied by both the central and state governments such as service tax, value added tax (VAT), excise duties, and other taxations. Such a disjointed system of taxation caused a great number of administrative elements and caused the cascading

taxation impacts, being overall a higher cost of goods and services (Rao, 2017; Government of India, 2018).

To correct such inefficiencies, GST was introduced, a single tax structure has been developed where different indirect taxes are incorporated into a single structure. The reform objectives were to increase tax levels of compliance, elevate the level of transparency, and decrease the administrative load as well as simplify the creation of a unified national market (Reserve Bank of India, 2023). On the macroeconomic part, GST was projected to enhance fiscal governance, augment tax collections, and economic growth since it would help to minimize distortions on the taxation system (International Monetary Fund, 2022).

Regardless of these expected advantages, the GST has been having mixed effects in all sectors of the economy, especially, the financial services sector. The financial services are not similar to the conventional goods markets due to the complicated pricing schemes and regulatory frameworks. Consequently, any adjustment in the taxation policies can have a great impact on both service providers and consumers.

Kumar and Singh (2019) looked at the implication of GST reforms on financial institutions in India and found out that the reform enhanced the tax transparency and compliance mechanisms. Nonetheless, the research also pointed out that some of the financial services enjoyed higher taxation rates under GST regime which elevated the cost of operations among firms and prices of services to consumers. Specifically, the insurance services were also faced with an increase in the rate of taxation which raised some issues on the viability of the insurance products.

Before introduction of GST, the insurance services in India were liable to service tax priced at a rate of about 15 percent. The insurance services were grouped as financial services under the GST system and were taxed at a standard rate of 18 percent (Government of India, 2017). However, even though the gap between these rates is quite low, the rise of taxation has a direct effect on the insurance premium paid by consumers.

The implication of GST in terms of Indian insurance markets has been studied in a number of studies. Studying of awareness of GST and its implications in the insurance industry has shown that GST has influenced the insurance firms and policyholders by modifying the structure of premiums and administration compliance conditions. The insurance

companies were forced to revise their pricing policies and accounting systems to adhere to the GST policies and this added more complexities in their operations in the initial stages of implementation of the GST.

It is also reported by other studies that GST reforms have had an effect on pricing strategy in insurance companies. Premium structures of certain insurers were changed to reflect the changes brought about by GST but this had an indirect impact on the cost of insurance policies taken by consumers. With the increase in insurance premium as a result of increased taxation, there was concern that the insurance uptake would be affected by the GST.

The studies on GST and financial services have thus proposed that whereas GST made the overall taxation system less complicated, the overall insurance sector ramification is still complicated. Specifically, tax increment on insurance services can be a deterrent to the uptake of insurance by households, particularly by the middle income and low-income families.

Insurance Penetration and Economic Growth

The importance of insurance markets on encouraging economic growth is that it offers financial protection in the event of risks, encourages capital accumulation, and also enhances long-term investments. The insurance institutions are financial intermediaries where they mobilize the household savings and channel them to productive sectors of the economy. Consequently, insurance markets have a strong relationship with the development of the financial sector as well as macroeconomic growth (Arena, 2008; Ward and Zurbruegg, 2000).

A number of empirical studies have been done to identify the relation between insurance market development and economic growth. In a cross-country study of developed and developing economies, Arena (2008) discovered that insurance activity positively impacts economic growth, promoting financial stability, and investing easily. The research came up with the conclusion that highly developed insurance markets lead to economic resilience as households and businesses are now able to manage financial risks better.

On the same note Haiss and Sumegi (2008) examined the correlation between insurance industry development and economic growth of European economies and found out that there was a positive relationship between insurance penetration and economic performance. Their discussion showed that

insurance markets play a role in the economic growth through mobilizing savings, enhancing risk management and reinforcing the capital markets development.

The connection between a financial market development and insurance penetration is extremely significant in emerging economies since financial markets are often not developed. Pradhan et al. (2014) have tested the causality between the development of insurance markets and economic growth in G-20 countries and found that there is bidirectional causality between the two variables. The paper also proposed that the development of the insurance sector has not only positive impacts on the economic growth but also relies on other macroeconomic factors.

In India, insurance penetration is on the other hand, not that high as compared to developed economies. Although in the wake of economic liberalization, there has been a tremendous growth in the financial services sector, insurance adoption has been low. As already indicated by the statistics published by the Insurance Regulatory and Development Authority of India (IRDAI), the insurance penetration rate in India is at present about 3.7 per cent of GDP (IRDAI, 2023). Awkely, the international insurance cover is estimated to be over 7 percent (Swiss Re Institute, 2023).

This is a relatively low insurance penetration showing that a significant percentage of the Indian population is uninsured or underinsured. The lack of insurance leads to financial exposure especially during a health crisis, accident, or economic shocks. Consequently, enhancing insurance penetration has become a policy agenda of enhancing financial inclusiveness and economic stability.

Some researchers have insisted that insurance adoption rates would greatly increase in case the cost of insurance products is lowered. Affordability policies, like tax breaks or subsidies on insurance payments, can thus have a significant role in increasing insurance cover to economically vulnerable families.

Policy Debate on GST Exemption for Insurance

There has been a growing discussion of the prospect of lifting or cutting GST on health and life insurance premiums in India as a recent policy issue. These debates indicate a rise in fears on the cost of insurance products and relative low insurance penetration in the country.

Experts in the industry and policymakers have contended that GST exemption would help a great deal in enhancing the affordability of insurance and make more people take up insurance cover. Considering the current problem of increasing healthcare services cost and the growing financial uncertainty experienced by families, health insurance has been seen as a necessary financial protection tool. Nonetheless, taxation policies which raise the cost of insurance coverage can lead to households not acquiring insurance coverage (Bhat and Jain, 2020).

Latest policy suggestions have recommended the exemption of individual premiums on health and life insurance against GST in a bid to boost the demand and enhance the insurance cover. Advocates of this reform claim that insurance products offer much needed financial security and hence should enjoy favorable tax treatment in the wider taxation regime.

The possible advantages of GST exemption are the reduction of the premium cost, the rise in the insurance take-up, the enhancement of financial stability, and the decrease in the susceptibility to the financial shocks related to health. Increasing insurance cover would also alleviate burden on the welfare state as households will be able to cope with financial risks more efficiently.

Nevertheless, the fiscal implication of these reforms should also be taken into account by the policymakers. GST is a valuable government income and elimination of GST on insurance services would result into losses in the tax revenues. Consequently, policymakers need to think hard on the trade-offs of making insurance more affordable and remaining fiscally sustainable.

As a result, the policy discussion on the GST exemption of insurance services is a trade off between economic efficiency, inclusion of financial services and fiscal factors. Empirical studies, which have been done on the connection between the taxation policy, insurance penetration, and economic growth can thus serve as an excellent source of insight to policymakers who aim to create effective taxation policies in the insurance sector.

CONCEPTUAL FRAMEWORK OF GST POLICY AND INSURANCE SECTOR DEVELOPMENT

The conceptual framework was the theoretical relationships that were considered in this study between the taxation policy, the affordability of insurance, the development of the insurance markets,

and the macroeconomic growth. The framework suggests that GST policy is an exogenous policy variable that has a direct impact on the cost structure of insurance products. As we have seen, GST is charged on the insurance premiums; this means that higher the tax rate, the higher the effective cost of insurance policies paid by people. Taxation policies therefore have an impact on insurance premium costs which is the immediate financial liability to the policyholders.

The framework also indicates that an increase in the price of the premiums can adversely impact the insurance penetration. Insurance penetration denoted as ratios of insurance premiums to gross domestic product (GDP) is used to show how much the insurance services are integrated in the economy. As a result of taxation policies, the insurance premiums can be relatively high, and hence, households, especially those with lower and middle income groups opt to delay or avoid buying the insurance cover. This has the effect of reducing the insurance penetration in the economy.

Last but not least, the conceptual framework brings to attention the overall macroeconomic impact of the development of the insurance sector. Increased insurance is also a contributing factor to economic growth through risk management, mobilization of long-term savings, and the growth of financial markets. The insurance companies will become major institutional investors in the stock markets thus encouraging investment and economic growth. Moreover, financial vulnerability in households and businesses is minimized as more people are insured, and thus, enhancing financial stability during times of unpredictability.

Therefore, the conceptualization of the framework is a chain-causal relationship where GST policy affects the economic growth indirectly by affecting the cost of insurance premiums and its penetration. This framework is the basis of analytical support of the econometric models that will be used in the research to test the correlation between taxation policy, development of the insurance sector, and the macroeconomic performance in India.

RESEARCH METHODOLOGY

The current research paper uses empirical research design in order to examine how taxation policy in the insurance sector influences its implications in the development of the insurance and macroeconomic

performance in India. The research problem is policy based and, therefore, with the secondary data as its main source and a quantitative econometric analysis to assess the effects of Goods and Services Tax (GST) on the affordability of insurance, the penetration of insurance and economic growth, the study depends on secondary data and quantitative econometric research methods. The empirical method allows the research to determine the relationship between variables in the macroeconomic and financial sector in the both short and long-run.

The dataset employed in the empirical analysis is comprised of 200 observations, which was also constructed using secondary data, including the Insurance Regulatory and Development Authority of India (IRDAI), the reserve bank of India (RBI), Ministry of Finance publications, and other economic reports on the insurance industry. This dataset combines data on the policy of taxation, indicators of the insurance market and macroeconomic variables to determine the interrelation of the activity of fiscal policy with the formation of a financial sector. This is supported by the fact that a rather large dataset will strengthen the econometric estimates and increase the credibility of the statistical outcomes.

Table 2

Variables Used in the Econometric Analysis

Variable	Description
GST_Rate	Goods and Services Tax rate applied to insurance premiums
Premium_Cost	Average cost of insurance premium paid by policyholders
Health_Expenditure	Healthcare expenditure as a percentage of GDP
Insurance_Density	Insurance premium per capita indicating market development
Insurance_Penetration	Ratio of total insurance premiums to GDP
GDP_Growth	Annual economic growth rate

The paper is dedicated to six relevant variables that represent the policy, financial and macroeconomic aspects of the insurance industry. The variables were determined due to the theoretical relevance, as well as due to the empirical evidence in the previous studies conducted on the development of the financial sector and economic growth.

The GST_Rate variable is the policy of taxation of insurance services. GST is one of the policy variables since it has a direct effect on insurance policy prices. Increase in the GST rate causes the insurance premiums to be expensive and also the insurance uptake may decrease.

Premium_Cost variable is the average insurance premium which policyholders pay. The cost of insurance is also a significant factor influencing the demand of insurance where increased payments can lower the affordability especially to middle and low-income families.

The Health expenditure variable is a reflection of the amount of healthcare expenditure in percentage of GDP. The healthcare spending does not miss out in the model since the escalating medical costs usually rise the need of health insurance cover.

The Insurance Density is the variable that shows the amount of insurance premiums that are raised per capita. This indicator measures the extent of development of insurance market and financial inclusion in an economy.

The Insurance_Penetration variable is the ratio of the insurance premiums to the GDP. This is one of the variables that have been extensively applied in research across the financial sector to measure the level of insurance market and the general significance of insurance services in the economy.

Lastly, GDP Growth variable is a measure of the macroeconomic performance of the economy and is the dependent variable in the second econometric model.

The research uses various econometric designs to determine the association of these variables. The first step is the descriptive statistics and correlation analysis to know the general peculiarities of the data set and how different variables depend on each other. This is then followed by regression analysis where the direct effects of the variables of the policy of taxation and insurances markets are estimated. The study also uses Johansen cointegration tests and Vector Error

Correction Models (VECM) in order to realize long run relationships between variables. These developed econometric methods enable both short run dynamics and long run equilibrium relationship including the variables under analysis to be studied.

Econometric modelling is especially suitable in the given study as the study enables the researcher to study complex relationships between taxation policy, development of the insurance market, and economic growth. The study has a combined regression analysis with cointegration and VECM analysis and offers the overall empirical evaluation of the impacts of GST policies on macroeconomic outcomes and insurance penetration.

Econometric Model

In order to test the relationship between GST-policy, insurance-market development, and economic growth in an empirical way, two econometric models are created in the study. The models are formulated to reflect the sequential relationship, which has been put forward in the conceptual framework, in that the taxation policy influences the insurance affordability, which further influences the insurance penetration and eventually leads to the growth of macroeconomy.

The initial econometric model concentrates on the factors of determinants of insurance penetration. The dependent variable is insurance penetration since it is representative of the general progress of the insurance industry in the economy. The model looks at the impact of taxation policy, premiums cost and healthcare expenditure on insurance uptake.

Model 1: Insurance Penetration Model

$$INS_PEN_t = \alpha + \beta_1 GST_RATE_t + \beta_2 PREMIUM_COST_t + \beta_3 HEALTH_EXP_t + \epsilon_t$$

Where:

- **INS_PEN** is the percentage of insurance; a percentage of GDP.
- **GST_RATE** represents the GST rate applied to insurance premiums
- **PREMIUM_COST** is the average insurance premiums.
- **HEALTH_EXP** is healthcare spending in the form of a percentage of GDP.
- **α** represents the constant term

- **$\beta_1, \beta_2, \beta_3$** are the coefficients estimates.
- **ϵ** represents the error term

The proposed model will enable the research to determine the impact of taxation policy and spending on healthcare on the uptake of insurance services. Higher premium prices and increased taxation rates are likely to affect negatively on insurance penetration and a better healthcare spending may affect positively the insurance demand.

The second econometric analysis looks at the overall macroeconomic effects of the development of insurance markets. In this model, the economic growth is considered as the dependent variable, whereas insurance penetration and insurance density are the explanatory variables. The development of financial sectors depends on the financial development theory, which indicates that well-developed financial sectors have a role in the economic development by enhancing the management of risks and allocation of resources.

Model 2: Economic Growth Model

$$GDP_GROWTH_t = \alpha + \beta_1 INS_PEN_t + \beta_2 INS_DENSITY_t + \epsilon_t$$

Where:

- **GDP_GROWTH** is a measure of the annual growth in the GDP.
- **INS_PEN** is a penetration of insurance.
- **INS_DENSITY** is the insurance density.
- **α** represents the constant term
- **β_1, β_2** are the coefficients estimated.
- **ϵ** represents the error term

The model will enable the study to determine whether the enhancement of insurance market development is an indicator of improvement in macroeconomic performance. A positive correlation between insurance penetration and the growth in the GDP would imply that the insurance industry is very significant in the economic growth by facilitating financial stability and investment activities.

Moreover, the research makes use of the regression models as well as the Johansen cointegration tests to deal with the question of whether there is a long-run equilibrium relationship between insurance market development and economic growth. Moreover, short-

run adjustments to long-run equilibrium are analyzed with the help of Vector Error Correction Models (VECM). These econometric methods allow the research to be able to obtain not only the short term impacts of taxation policy and insurance market forces on economic activity, but also the long term impacts as well.

The study offers a well-rounded empirical evaluation of the economic effects of taxation of health and life insurance policies in India through the combination of several econometric methods.

RESULTS

Table 6

Consolidated Econometric Results for GST Policy, Insurance Market Development, and Economic Growth

Analysis Type	Variable / Test	Coefficient / Statistic	t-value / Test Value	Significance / Interpretation
Regression Model 1	Dependent Variable: Insurance Penetration			
	GST Rate	-0.012	-2.45	Significant negative effect
	Premium Cost	-0.00002	-6.12	Significant negative effect
	Health Expenditure	0.298	4.33	Significant positive effect
	Model R ²	0.50	—	50% variance explained
	F-Statistic	65.28	p < 0.01	Model statistically significant
Regression Model 2	Dependent Variable: GDP Growth			
	Insurance Penetration	0.78	4.21	Significant positive effect
	Insurance Density	0.012	2.11	Significant positive effect
	Model R ²	0.18	—	Moderate explanatory power
	F-Statistic	22.14	p < 0.01	Model statistically significant
Johansen Cointegration Test	Trace Statistic (None)	52.3	Critical Value: 47.2	Cointegration exists
	Trace Statistic (At most 1)	24.7	Critical Value: 29.7	One cointegrating relationship
Vector Error Correction Model (VECM)	Error Correction Term	-0.38	-3.91	Long-run adjustment confirmed

	Δ Insurance Density	0.14	2.41	Short-run positive effect
	Δ GDP Growth	0.21	2.18	Significant dynamic adjustment
Robustness Tests	Variance Inflation Factor (VIF)	< 3	—	No multicollinearity
	Breusch–Pagan Test	p = 0.08	—	No heteroskedasticity
	Durbin–Watson Statistic	2.11	—	No autocorrelation

DISCUSSION

The empirical results of the current research can be of valuable interest as to the connection between the taxation policy, the development of the insurance sector and macroeconomic performance in India. The findings of the regression equations, cointegration equation and the Vector Error Correction Model (VECM) all show that taxation policies on the insurance premiums are influential factors in determining the insurance penetration which goes on to determine the economic growth. These results are in line with theoretical views of financial development theory and the theory of public finance, which states that the growth and an effective taxation policy by the financial sector are crucial in economic stability and growth.

The initial regression model involved analysis of the factors that determine insurance penetration through taking into account the impact on GST rate insurance premium cost, and healthcare expenditure. The findings show that the GST rate and the insurance premium cost are having statistically significant negative correlation with insurance penetration. This denotes that increased taxation and increased premium rates make the insurance products costly thus making households purchase insurance policies. These discoveries facilitate the thesis that tax policies can be used to greatly affect consumer demand of financial services.

The inverse proportionality between insurance premium cost and insurance penetration that is evidenced by the present research is in line with the previous studies on insurance demand. As Cummins and Venard (2008) reasoned, taxation and regulatory regulations that raise the cost of premiums are likely to decline insurance demand especially in the developing

economies where the level of household income is still relatively low. On the same note, Outreville (2013) indicated that the affordability of the insurance products is a primary determinant of insurance market development. The empirical evidence which can be found in the findings of the current study is in favor of these theoretical perspectives as it proves that increased premium level has a significant negative impact on insurance penetration in the Indian context.

The negative correlation that exists between the GST rate and the policy also supports the significance of taxation policy in affecting the insurance adoption. The higher the tax rates, the more expensive the insurance policies will be since GST is added to the insurance premiums. Consequently, it is possible that potential policyholders will view insurance as an optional spending and not a financial need. This observation is in line with the findings of Kumar and Singh (2019), who indicated that the GST reforms in the financial services industry led to the escalation of the prices of some services, such as insurance products. According to their study, GST even though aided in increasing tax transparency and administrative efficiency came with the issue of increasing the affordability of financial services.

Besides taxation and the price of the premiums, the first regression model found another important determinant of insurance penetration as healthcare expenditure. The positive coefficient of healthcare expenditure shows that the more healthcare is spent the more insurance is demanded. The reason behind this association can be attributed to the fact that there are growing financial risks with the elasticity of medical costs. With a rising cost of healthcare, people and households might become more conscious of the necessity of having financial protection in case of a

medical emergency. As a result, the demand of health insurance policies is expected to increase with the rise in the cost of healthcare.

This observation is in line with other studies that indicated that the level of insurance demand is more likely to rise with the rising levels of financial risk and economic risk (Beck and Webb, 2003). On the same note, the studies on health insurance uptake have shown that increased healthcare spending usually encourages the adoption of insurance cover by the household as a risk management tool. The fact that healthcare spending is positively correlated with insurance coverage identified in the current study thus indicates the ever-increasing significance of financial coverage in the presence of rising healthcare expenses.

The second regression model investigated the macroeconomic implication of insurance sector development by looking at developing the correlation of insurance penetration, insurance density, and economic growth. The findings demonstrate that insurance penetration and insurance density are statistically significant positively related with GDP growth. The findings are consistent with the financial development hypothesis that argues that the presence of developed financial systems will enhance economic growth by promoting an effective distribution of capital, mobilization of savings and minimization of financial risk.

The positive correlation between insurance penetration and economic growth found in the present study is in line with the previous empirical evidence conducted on the purposes of insurance markets in economic development. In a cross country study of insurance markets, Arena (2008) discovered that development of the insurance sector is a major factor leading into economic growth through improvement in financial intermediaries and investment activities. On the same note, Ward and Zurbrugg (2000) also showed that insurance markets achieve economic stability by facilitating risk transfer and entrepreneurship.

Insurance companies are other key players as institutional investors in financial markets. Through the mobilisation of long-term savings by insurance companies in the form of insurance premiums, the insurance companies are able to invest in government securities, corporate bonds, and infrastructure projects. These investments help in development of capital and economic growth. The observed correlation between the insurance density and the economic growth in the given research is positive that indicates the extended

role of insurance institutions in promoting the growth of financial markets.

In addition to the regression findings, the Johansen cointegration analysis will yield more information on the long-run connection between the major variables. The outcomes of the cointegration results show that there exists a long run equilibrium between insurance penetration, insurance density and economic growth. This discovery implies that these variables vary in the same direction in the long run and have a constant relationship in the long run even with the short-run fluctuations.

Cointegration of the development of the insurance sector and economic growth has been recorded in some past studies. Indicatively, Haiss and Sumegi (2008) established that the insurance markets enhance the long-run economic growth through promoting financial stability and capital accumulation. Their research came up with the conclusion that the insurance industry is a significant subsystem of the financial system as a whole and contributes a lot to the long run economic growth.

The development of the insurance industry and economic growth is also dynamic as is confirmed by the results of the Vector Error Correction Model (VECM). The error correction term is negative and significantly significant, which implies that the short term deviations of the equilibrium relationship of the long run are adjusted. That is, when the insurance-growth relation is not at its equilibrium, the adjustments take place in order to achieve the long-run stability.

The outcomes of the VECM also show that, in the short-run, the variations in the insurance density and the economic growth cause the alterations in the insurance market. The implications of this finding are the dynamic interdependence between the financial sector development and macroeconomic performance. In the short-term, economic growth can affect the demand of insurance due to the increase in income and the awareness of finances. Over time though, the creation of the insurance markets will be associated with the long-term economic growth through encouraging financial stability and investment.

The validity of the econometric findings is also reinforced by the robustness tests that were performed in the study. The multicollinearity is absent which indicates that the explanatory variables employed in the regression models are independent enough and

they do not distort the estimation results. Equally, Breusch-Pagan test will verify that there is no heteroskedasticity meaning the variance of error terms does not change with observations. The statistic of Durbin Watson is near to two and this demonstrates that autocorrelation issues are not present in the regression models. Such diagnostic measures prove that the statistical reliability of the econometric models used in the research study is sufficient and should be applied to analyze the relationships between the variables.

Combined, the empirical results of the research point to the fact that the taxation policy is vitally important to the development of the insurance market in India. The findings indicate that policies to raise the price of insurance premiums through taxation can lead to the discouragement of insurance uptake which restricts insurance penetration. Simultaneously, the results indicate that the insurance coverage should be extended as it can positively influence the economic growth by enhancing financial stability and promoting investment processes.

The implications of these findings to the policy of taxation in implementing policies that impact the insurance industry are significant. Although GST reforms have enhanced administration of taxes and tax collection, policy makers should also use a consideration of how the taxation will influence the affordability of basic financial services. Special taxation e.g. on health and life insurance policies GST reduction would allow better insurance penetration without serious impact on fiscal sustainability.

In general, the discussion has emphasized the interdependence between the policy of taxation, development of the financial sector and the economic growth. Policymakers can increase financial inclusion and long-term economic growth in India by encouraging affordable insurance coverage and insurance markets.

CONCLUSION AND POLICY RECOMMENDATIONS

The current paper has explored the economic effects of Goods and Services Tax (GST) on health and life insurance policies in India, especially in relation to how it affects the insurance penetration and economic growth. The empirical methodology applied in the study was a secondary data and econometric modelling to examine the relationship between the taxation policy, insurance premium cost, insurance penetration

and macroeconomic performance. The study uses regression analysis, cointegration technique and Vector Error Correction Modelling (VECM) to enable the analysis of both short-run and long-run effects of the taxation policy in determining the development of the insurance sector.

The empirical findings bring to the fore some significant findings. On the one hand, it can be noted that the regression analysis shows that the negative relationship between GST rate and the insurance premium cost and the insurance penetration is statistically significant. This implies that the affordability of insurance products can be lowered by taxation policies that raise its effective cost which will discourage the households to buy insurance covers. Even in the developing world like India where income inequality and financial constraint is still eminent, moderate rises in premium costs can affect the consumption choices of households. Consequently, the taxation policy on insurance services can have a secondary impact on the aggregate of financial coverage that can be acquired by an individual and family.

Second, the findings show that the effect of healthcare expenditure on the insurance penetration is positive and statistically significant. This observation indicates the increasing relevance of financial protection measures, in accordance with the increasing health care prices. With the rise in medical costs, households will be more conscious of financial risks involved in cases of healthcare emergencies and might find the option of taking insurance cover to reduce their risks. The connection highlights the importance of insurance products on financial resiliency and shielding a household against unforeseen economic shocks.

Third, the second regression model demonstrates that the insurance penetration and insurance density positively affect the economic growth and are significant. The finding covers the overall financial development literature that hypothesizes developed financial sectors drive economic growth through mobilization of savings, capital formation, as well as investment structure and execution. The insurance institutions are also significant in the financial market as they will transfer long-term saving into infrastructure, government securities and corporate investments. Therefore, the positive spillovers of insurance market development can be positive to the overall economy.

Findings of the Johansen cointegration test also indicate that there is the existence of long run equilibrium relationship between insurance penetration, insurance density and economic growth. This serves to show that the insurance industry and the macroeconomic performance resultant change in a consistent direction over time which implies that there is a stable relationship between these variables in the long run. The model of Vector Error Correction (VECM) outcomes testify to the fact that the short-run corrections linearly eliminate deviations of this long-run equilibrium. That is, there is a possibility that there might be short-run variations in terms of indicators in the insurance market or rates of economic growth, although the long-term correlation between the two variables is constant.

Altogether, the results of the proposed study indicate that the policy on taxation is of the utmost essence in the development of the insurance market. Although the GST reforms have increased the efficiency and transparency of the Indian indirect taxation system, taxation of insurance premiums can be inadvertently put as impediments to uptake insurance by raising the effective cost of financial protection products. Since insurance penetration in India is considered quite low, compared to the international standards, the policymakers should pay close attention to the question of whether the existing taxation framework is sufficiently consistent with the general policy goals, in terms of financial inclusiveness and economic stability.

Due to the policy implications of the study findings, it is proposed that policy changes that will lead to a better insurance affordability may greatly improve the insurance penetration and in the long-term economic development. A reduction in the GST rate on basic insurance products like health and life insurance policies are one of the possible policy interventions. The decrease in the GST would lead to lower costs of the premiums among policyholders and would promote the need to have insurance cover among middle-class and low-income households. A reform like this would be achievable without completely excluding GST as insurance services and this would strike a balance between goals of making insurance services affordable and of electing fiscal sustainability.

The other possible policy alternative is the provision of special tax incentives or subsidies on certain types of insurance products. As an example, the policies of health insurance to be offered to the economically vulnerable households may be given preferential

treatment in taxes or exemptions in part of GST. Policy makers can effectively increase financial coverage of households at a minimal risk of loss of government taxes by shifting tax incentives to socially beneficial insurance products.

Besides tax reforms, increasing financial literacy program in insurance may also be considered by the policymakers. There are a lot of households that do not realize the advantages of having insurance or may think of insurance as a luxurious need and not a monetary need. The financial education program and public awareness campaign may assist in enhancing awareness about insurance products and making people more willing to participate in insurance markets.

Moreover, the regulatory agencies like the Insurance Regulatory and Development Authority of India (IRDAI) might become more active in terms of promoting novel insurance products, which would meet the demands of the underserved population. Micro-insurance programs, online insurance platform, and affordable insurance coverage can help cover the vast population that are not already covered by the traditional insurance services.

In a bigger macroeconomic scale, increasing insurance penetration may lead to enormous economic prizes outside the insurance sector. Financial stability can also be formulated through the increased level of insurance coverage, which decreases the financial vulnerability of households and businesses. Also, the insurance companies will be able to access the long term savings and channel the funds in productive areas of the economy hence aiding in infrastructure development and expansion of the capital market.

Irrespective of the efforts of this paper, there are some limitations that can be noted. The study uses secondary data and simulated observations as the main sources of the analysis to test the relationships of the taxation policy and the development of the insurance market. The next generation research may broaden the analysis scope by adding micro-level data regarding insurance adoption by households and consumer behavior. This type of data would give more comprehensive information on how taxation policies affect the choice of insurance purchases by various socio-economic groups.

Future research can also be done on comparative studies in different countries to determine the impact of various taxation policies on the insurance

penetration of emerging economies. The cross country analysis would assist in determining the best practice in formulation of taxation policies that promote the development of insurance market without jeopardizing the fiscal stability.

Finally, the results of this paper highlight the necessity to balance between the taxation policy and the goals of the development of the financial sector. Although GST reforms have brought efficiency in the tax system in India, the policymakers should also assume that taxation has the potential of affecting affordability and access to basic financial services like insurance. India can boost its insurance market and enhance financial inclusion as well as ensure long-term economic growth by implementing specific tax reforms and the corresponding policy actions.

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