A Comparative Assessment of Indicators for Public Sector General Insurance Companies : An Indian Perspective

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Abstract

Academic research in the insurance sector is limited to the life insurance segment with non-life insurance being an under focus area. This paper addressed the void in literature by studying the general insurance sector by comparing the performance from an Indian perspective. The research was based on studying all the major companies operating in the general insurance sector in India focusing on the critical dimensions of premiums collected by the insurance companies, claims paid to the insured, and commissions paid to sales agents. As the Indian market is led by public sector companies, all the four major general insurance companies were researched, and a comparative assessment was made across two different geographic markets. The objective of the paper was not only to establish the linkages for firm performance across geographic markets, but also to identify a set of themes for future research to strengthen the body of literature on general insurance industry in India. The paper would have far reaching influence for general insurance practitioners too by providing the nuances of performance on relevant dimensions in the general insurance domain.

Key words : General insurance, insurance claims, insurance premium, regression analysis, sales commissions

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The history of general insurance is more than 200 years old in India. Among the global emerging economies, India occupies the fifth place. Globalization has provided ample opportunities to all sectors, including insurance through advanced technologies and enhanced service delivery. At the same time, globalization has increased competition and has also increased the risk for the insurance industry (Vijaylakshmi, 2009). Presently, there are 30 non - life insurance companies in India (IRDA, n.d.) that deal with general insurance that includes motor, personal accident, fire, marine, and household to name a few. In the year 1972, general insurance was nationalized. However, with liberalization post 1991 and subsequently entry of multinational enterprises (MNE) across various sectors, that is, automotive, consumer products, consumer durables, etc., the private sector was allowed into the insurance industry in the year 2000.

Recently, the Government of India (GOI) has approved the increase in foreign direct investment (FDI) limit in the insurance sector from 26% to 49% (India Brand Equity Foundation, 2017). The GOI has also given approval for the listing of general insurance companies in the stock exchanges to divest 25% of its shareholdings over a period of time. Based on a comparison of performance of private and public sector insurance firms, it can be stated

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that public sector insurance companies dominate the Indian market with close to 59% market share as per financial year 2015-2016 estimates (Chitra, 2017). Though the growth of private insurance players like IFFCO-Tokio General Insurance Company, Reliance General Insurance, Royal Sundaram Alliance Insurance Company, TATA AIG General Insurance Company, and Cholamandalam General Insurance has been phenomenal over the last couple of decades, the four major public sector general insurance companies with their long legacy of more than 100 years enjoy an insurmountable edge. There have been several studies done on life insurance sector based in India comparing the performance of public and private sector players and the financial soundness of the segment in general (Chakraborty, 2016 ; Khan & Vazirani, 2017 ; Sinha, 2013). However, the general insurance sector is relatively less explored and is the focus of this paper.

This study focuses on the general insurance industry from an Indian perspective with respect to specific attributes that are critical to performance in the industry. The paper analyzes the linkages between insurance premium earned by the four major public sector general insurance companies, as against the claims paid by them and the commissions handed over to insurance sales agents. The study is based on panel data based on two specific geographies in India and provides a comparison of performance across geographies as well. The study addresses the research gap in extant literature on vastly unexplored general insurance sector with focus on comparative assessment of firm performance based on specific parameters. The findings of the study not only draw attention of researchers towards the linkage of premium earned versus claims processed and commissions paid to agents, but also provides marketers of insurance companies key decision variables. This study definitely reinforces theory building in the insurance sector studied in an emerging market context like India, where it is still developing.

Review of Literature

A review of extant literature indicates that the environment affects the efficiency of non-life insurers and factors like size, profitability, solvency, and ownership form impacts such efficiency (Huang & Eling, 2013). In a study involving the French insurance industry, Fecher, Kessler, Perelman, and Pestieu (1993) found that there was a wide dispersion in inefficiency across companies, and variations in scale, ownership, distribution, reinsurance, and claims ratios were important factors explaining such variations. Park and Lemaire (2012) found that culture had an important role to play in the insurance sector business. Within heterogeneous countries, market segmentation strategies aimed at sub-groups that exhibited the best cultural scores. In another study by Joo (2013), it was established that claims ratio and firm size had greater impact on solvency position of insurance companies. Hwang and Kao (2006) established the construct market position in the insurance business. They demonstrated in their findings that market position was explained by percentage of outer servers, number of branches, premium investment percentage, and corporate image, while profitability was explained by market share, percentage of premium reserved, and corporate image. In a similar nature of study (Achieng, 2010), it was observed that general insurance industries faced a major problem in forecasting the future claim from past data. Actuarial model showed that the log - normal distribution provided a good-fit for claims data. Thus, from the above, it can be observed that global studies on general insurance have covered various facets, that is, cultural influences, firm performance across attributes, market position, and claim forecasting.

For a comprehensive review of literature and more so as our research is India centric, the body of literature on India was also reviewed in detail. As per CRISIL-ASSOCHAM (2015), the insurance penetration in India is at 3.9%, which is much lower compared to the global average of 6.3%. The insurance premium value per capita is at 1% of annual income in India compared to 7% in the U.S. and 12% in UK. Several studies (Carter & Dickinson, 1992; Sinha, Nizamuddin, & Alam, 2012) pointed to a similar analogy of relationship between insurance penetration and per-capita GDP. As per the above research studies, insurance penetration normally increases with an increase in per-capita GDP, although the relationship could be linear or non-linear. Maharashtra, Tamil Nadu,

and Karnataka together accounted for over 50% of the gross health premium collected across Indian states and Union Territories as of 2012-13 (ASSOCHAM, 2014). In India, the profitability of general insurance companies was found to depend positively on capital adequacy and GDP and was found to be negatively related to liquidity and inflation (Daare, 2016). Extant literature has revealed that flexibility in premium collection is a design need for micro-insurance providers in low income localities. Irregular and uncertain income within the rural poor population is a challenge for the growth of micro-insurance industries. This indicates plausible impact of geographies on the profitability of insurance businesses (Ahuja & Guha - Khasnobis, 2005). It is also established that in India, the broker assumes a central role. However, the customer finds it difficult to interpret the terms appropriately, indicating information asymmetry. Inadequate coverage is more common in case of small and medium enterprises (SME) customers (Sinha, Nizamuddin, & Alam, 2012). In case of health insurance, Bhat and Rajgopal (2005) indicated that the reimbursement was higher as compared to USA. Singh and Kumar (2011) reported that the efficiency of the public sector general insurance companies is higher in the post-reform period (i.e. post 1991 era) than in the pre-reform period. Commission structure is sticky in India as it is fixed by law. Agents are to be incentivized upfront and at an increasing rate over the period to ensure persistent service (Kumar, 2004).

The literature review of the insurance sector with a specific focus on general insurance very clearly reflects a huge gap in the body of literature. While extant literature has references on commission structure and service quality of agents, firm performance pre and post liberalization in India, high health sector reimbursements to insurers in India as against a developed market like USA, to name a few; there is not a single study in the Indian context, to the best of our knowledge, that reflects the linkages of a key firm performance indicator, that is, premiums collected with claims paid and commission paid to agents. This study not only establishes the above relationship for the public sector general insurance companies in India, but also delves into cross geographical comparison within two different prominent markets of a Central Indian state. Since India has a very diverse socioeconomic profile for different regions, these differences impact firm performance. Besides, it is also to be noted that the general insurance sector in India is dominated by public sector companies ; these companies are different in size, and emphasis on geography of operations are different for different companies. Thus, the study makes significant contribution to theory on performance of general insurance companies in a less matured industry (i.e. general insurance) and an emerging market like India.

Objectives of the Study and Methodology

Data for research were collected for four public sector general insurance companies operating in India for two specific geographies from a central Indian state. The data is a balanced panel data with observations for four companies over a 5 - year period (financial year 2010 - 2011 to 2014 -2015) across three different variables specific to the general insurance industry. It may be noted that general insurance includes all forms of insurance covers excluding life, that is, fire, marine, motor, engineering, aviation, to name a few. The three variables that were studied include, insurance premium collected, insurance claims paid, and the commissions paid to sales agents. The data for analysis were considered at an aggregate level. There are certain advantages of using panel data for the study as against only time series or cross sectional data. This imparts more robustness to the design of the study and subsequently the findings of the research. Hypothesis testing improves as it brings in heterogeneity in the data, reduces collinearity, and increases overall degrees of freedom.

Based on the research gap identified in the previous section, the objectives of research of this study are :

(i) To establish the linkage between premiums collected, insurance claims paid, and commissions paid to sales agents for different public sector general insurance companies.

(ii) To establish the linkage between premiums collected, insurance claims paid, and commissions paid to sales agents for different public sector general insurance companies in different geographical markets.

Based on the objectives of the research stated as a gap in the previous section, the two hypotheses were framed and tested in the study. These are given below :

✦ **H1 :** There is no difference between different public sector general insurance companies in terms of the relationship between premiums collected, insurance claims paid, and commissions paid to sales agents.

✦ **H2 :** There is no difference between different public sector general insurance companies in terms of the relationship between premiums collected, insurance claims paid, and commissions paid to sales agent between different geographical markets.

The panel data were collected from regional offices of different companies of a central Indian state. The data were validated for any errors, post which multivariate regression analysis was carried out using the package, SPSS 20.0. Classical linear regression model using ordinary least squares method (OLS) was adopted for the analysis. The following assumptions were made for the analysis :

(i) The regression model is linear in the parameters considered, that is, premiums collected, insurance claims paid, and commissions paid to sales agent.

(ii) Mean value of the error term is zero.

(iii) There is no specification bias.

(iv) There is no auto correlation between the error terms.

(v) Zero covariance between the error term and the independent variables.

(vi) There is no exact liner relationship between the different independent variables.

(vii) Homoscedasticity is depicted in the model.

"Premium collected" was chosen as dependent variable and the predictor variables for the regression were "commissions paid to sales agents" and "claims paid" by the respective firms. For H1, variability in the behavior of different companies was tested independent of geographical markets. Hence, the means of the three variables

Table 1. Results of Regression Analysis - All Firms Taken Together

Model	R Squared	Durbin Watson	F	Sig.*
All firms considered together	0.963	1.011	218.446	0.000

Note : *Testing at 5% level of significance

Table 2. Partial Correlation Coefficients - All Firms Taken Together

Description	Unstandardized Coefficient	Standard Coefficient (Beta)	t	Sig.*
Claims paid	0.691	0.486	1.339	0.198
Commission paid	8.867	0.497	1.370	0.188

Note : *Testing at 5% level of significance

Table 3. Results of Regression Analysis

Model	R Squared	F	Sig.*
National Insurance Company	0.935	14.290	0.065
New India Assurance Company	0.910	10.75	0.090
Oriental Insurance Company	0.901	9.102	0.099
United India Insurance Company	0.987	77.644	0.013

Note : *Testing at 5% level of significance

Table 4. Partial Correlation Coefficients

Model	Description	Unstandardized Coefficient	Standard Coefficient (Beta)	t	Sig.*
National Insurance Company	Claims Paid	1.552	0.576	2.830	0.105
	Commission Paid	23.293	0.555	2.724	0.112
New India Assurance Company	Claims Paid	1.385	0.412	1.810	0.212
	Commission Paid	18.559	0.726	3.190	0.086
Oriental Insurance Company	Claims Paid	1.163	0.412	1.725	0.227
	Commission Paid	42.626	0.718	3.008	0.095
United India Insurance Company	Claims Paid	0.417	0.182	2.080	0.173
	Commission Paid	23.753	0.905	10.362	0.009

Note : *Testing at 5% level of significance.

for the two different geographical markets were considered for analysis. From the findings of the analysis, it can be seen that the model has a very high coefficient of determination value, R Squared of 0.963, which indicates that the independent variables (i.e. commission paid and claims paid) account for 96.3% of the variance of the dependent variable, that is, premiums collected. It can also be seen that the Durbin - Watson statistic is high (at 1.011), indicating no autocorrelation between the variables chosen for the regression analysis. It can also be observed from ANOVA test in Table 1 that the model is statistically significant based on the F statistic score. However, the coefficients (refer Table 2) indicate that partial correlation coefficients of both the independent variables, that is, commission paid and claims paid are not statistically valid (based on sig. value greater than 0.05 indicated in Table 2).

Thus, the estimated regression equation establishing the relationship between premiums collected, commission paid, and claims paid may be stated as :

$$\hat{Y} = a + \beta_1 X_1 + \beta_2 X_2$$

where X_1 is the predictor variable "claims paid" and X_2 is the predictor variable "commission paid". Unstandardized beta coefficients are 0.691 for X_1 and 8.867 for X_2 . However, we cannot proceed with this estimated regression equation though the model is statistically valid as none of the partial correlation coefficients are significant based on t statistic score at 5% significance level. Hence, regression models are estimated for each of the different firms individually to examine H1. We test one by one for the four different public sector general insurance companies. The findings of the regression run for all companies are presented in the Table 3 and Table 4.

It is observed that the R square value is high (at 0.935), indicating high degree of explanation of the dependent variable by the independent variables for National Insurance Company. However, the model fails the test of significance at the 5% significance level (sig. value in ANOVA table is greater than 0.05), but is statistically valid if the significance level is relaxed and fixed at 10%. The partial correlation coefficients of the predictor variables

also fail the test of significance based on t - statistic. The results for New India Assurance Company are not very different from the previous results of National Insurance Company. It can be seen that R square value is high (at 0.910), indicating a high degree of explanation of the dependent variable by the independent variables. The model fails the test of significance at 95% confidence level (sig. value in ANOVA table is greater than 0.05), but is statistically valid if the confidence level is relaxed and fixed at 90%. The partial correlation coefficients of the predictor variables also fail the test of significance based on t - statistic for a significance level of 5%. For Oriental Insurance Company, the R square value is also observed to be high (at 0.901), indicating a high degree of explanation of the dependent variable by the independent variables. The model fails the test of significance at the 5% significance level (sig. value in ANOVA table is greater than 0.05), but is statistically valid if the significance level is relaxed and fixed at 10%. The partial correlation coefficients of the predictor variables also fail the test of significance based on t - statistic. We do not see much difference between the three public sector insurance companies analyzed so far. In case of United India Insurance Company, the results are very similar to the three discussed above. While the coefficient of determination is high at 0.987, the model is statistically valid (with a sig. value of 0.013). However, when the partial correlation coefficients of the independent variables are analyzed, it can be seen that "commission paid" is statistically valid based on t - statistic ; whereas, "claims paid" fails the test.

Based on the above findings, it can be mentioned that the model is statistically valid only for United India Insurance Company with the estimated regression equation formulated as :

$$\hat{Y} = -74501660.81 + 23.753X_1 \text{, where } X_1 \text{ is the predictor variable "commission paid".}$$

Based on the combined analysis and subsequently individual analysis of the four different firms, it may be summarized that the findings are not very different from each other. The model fails statistical validity for three of the four firms at 95% confidence level, though all of them qualify the test for 90% confidence level (with the exclusion of United India Insurance Company, which has a predicted model statistically valid at 95% confidence level). Hence, it may be concluded that the variables chosen for the study of the public sector general insurance companies do not provide enough evidence to reject the null hypothesis, H1 (i.e. there is no difference between different public sector general insurance companies in terms of the relationship between premiums collected, commission paid to sales agents, and claims paid by the respective firms). Since the results fail for a majority of the study firms, it can only be stated that the results are mixed and may need consideration of more study variables along with commission paid and claims paid to arrive at conclusive evidence to reject H1.

In order to test H2, data is organized and each firm is analyzed separately for the two different geographic

Table 5. Results of Regression Analysis

Model	Geographic Market	R Squared	F	Sig.*
National Insurance Company	GM 1	0.957	22.401	0.043[#]
	GM 2	0.722	2.598	0.278
New India Assurance Company	GM 1	0.693	2.255	0.307
	GM 2	0.972	17.418	0.167
Oriental Insurance Company	GM 1	0.867	6.533	0.133
	GM 2	0.995	182.791	0.005[#]
United India Insurance Company	GM 1	0.989	90.702	0.011[#]
	GM 2	0.806	6.228	0.086

Note : *Testing at 5% level of significance; # Estimated models statistically valid at 95% confidence level.

Table 6. Partial Correlation Coefficients by Geographic Markets

Model	Geographic Market	Description	Unstandardized Coefficient	Std. Coeff. (Beta)	t	Sig.*
National Insurance Company	GM 1	Claims Paid	1.554	0.786	4.504	0.046
		Commission Paid	10.394	0.294	1.683	0.234
	GM 2	Claims Paid	1.669	0.655	1.581	0.255
		Commission Paid	11.398	0.327	0.789	0.513
New India Assurance Company	GM 1	Claims Paid	-5.095	-1.151	-1.944	0.191
		Commission Paid	171.335	1.198	2.023	0.180
	GM 2	Claims Paid	1.079	2.042	4.393	0.142
		Commission Paid	-5.791	-1.248	-2.684	0.227
Oriental Insurance Company	GM 1	Claims Paid	0.923	0.483	1.412	0.293
		Commission Paid	24.756	0.540	1.581	0.255
	GM 2	Claims Paid	9.910	8.503	3.004	0.095
		Commission Paid	-125.382	-7.517	-2.656	0.117
United India Insurance Company	GM 1	Claims Paid	0.280	0.134	1.790	0.215
		Commission Paid	14.807	0.963	12.841	0.006
	GM 2	Claims Paid	0.096	0.057	0.139	0.898
		Commission Paid	14.679	0.852	2.080	0.129

Note : *Testing at 5% level of significance ; Std. Coeff. (Beta) stands for Standard Coefficient (Beta)

markets (i.e. GM 1 and GM 2). The ordinary least square method is followed and the necessary assumptions are made accordingly. In Tables 5 and 6, the findings for different companies have been presented for the two different geographic markets. In Table 5, the results for the estimated models have been shown ; while Table 6 displays the partial correlation coefficients for the estimated models.

It can be observed from the Table 5 that between the two geographical markets, the estimated regression model for National Insurance Company is statistically valid for GM 1, but not for GM 2. The R square value is high for GM 1 at 0.957 as against 0.722 for GM 2, indicating that the independent variables explain about 96% of the variance in the dependent variable for National Insurance Company in GM 1. The estimated regression model for GM 1 can be expressed as :

$$\hat{Y} = -93008955.01 + 1.554 \, (\text{Claims paid}) \, X_1.$$

The second predictor variable, "commission paid" is not statistically significant based on t - statistic (greater than 0.05). It may be concluded on the basis of the above findings that National Insurance Company differs in the relationship between premiums collected, commission paid, and claims paid between two different geographical markets.

The results of the analysis indicates similarity in findings across GM 2 and GM 1 for New India Assurance Company. Both the estimated regression models are not statistically significant. Therefore, no specific inferences can be derived from this particular analysis for New India Assurance Company for these two markets. However, the finding for Oriental Insurance Company indicates that the estimated model for GM 2 is statistically valid based on ANOVA test ; whereas, it is rejected for GM 1. However, the predicted model cannot be established though it has a very high value of R square (at 0.995), since none of the partial correlation coefficients are statistically significant. Therefore, like New India Assurance Company, on the basis of the research findings, no specific

conclusions can be drawn as far as the independent and dependent variables are concerned for Oriental Insurance Company across the two markets.

For United India Insurance Company, it can be observed that both the estimated regression models (i.e. GM 2 and GM 1) are not statistically significant at the 95% confidence level, though GM 2 is significant at the 90% confidence level. So, the regression models cannot be established for the two different geographies, indicating no significant difference for United India Insurance Company between the two different geographical markets (similar to the findings for New India Assurance Company and Oriental Insurance Company).

Summarizing for H2, it can be stated that the findings are mixed as far as different public sector general insurance companies behave between the two geographical markets on the relationship between premiums collected, commission paid, and claims paid. The analysis indicates that for United India Insurance Company, Oriental Insurance Company, and New India Assurance Company, there is no difference between the study markets ; whereas, for National Insurance Company, some differences across the locations are observed. It can be concluded that premiums earned by National Insurance Company in GM 1 is influenced by claims paid, but not related to commissions paid. For GM 2, there is no relationship between the study variables. In case of Oriental Insurance Company, the overall model is statistically valid for GM2 (not for GM1), but then, none of the predictor variables are statistically significant, and hence, the estimated regression model could not be established. Therefore, since all the four companies studied do not reflect similar behavior across different geographical markets, the null hypothesis is rejected. Hence H2 - which states that there is no difference between different public sector general insurance companies in terms of the relationship between premiums collected, commission paid, and claims paid between two different geographical markets - is rejected. Though the evidence is not strong enough to avoid rejection of null hypothesis, it may be worthwhile to study the behavior of the study firms across the research markets with additional independent variables.

Discussion

The findings from our analysis have two distinct results with regard to the relationship between the independent variable – insurance premium collected and the dependent variables – claims paid by firms and commissions paid to agents for the four public sector general insurance companies studied across two geographical markets in India.

Table 7. Comparison of Ratios by Firms - GM 1

Year	Ratio	National Insurance	New India Assurance	Oriental Insurance	United India Insurance
2010 - 2011	Claims/ Premium	0.66	0.74	0.82	0.30
	Commission/ Premium	0.10	0.06	0.07	0.07
2011 - 2012	Claims/ Premium	0.56	0.73	1.15	0.20
	Commission/ Premium	0.08	0.07	0.11	0.07
2012 - 2013	Claims/ Premium	0.51	0.86	0.56	0.19
	Commission/ Premium	0.07	0.09	0.06	0.07
2013 - 2014	Claims/ Premium	0.56	0.38	0.57	0.47
	Commission/ Premium	0.07	0.04	0.05	0.06
2014 - 2015	Claims/ Premium	0.58	0.78	0.72	0.52
	Commission/ Premium	0.06	0.08	0.05	0.06
Five Year Average	Claims/ Premium	0.58	0.70	0.76	0.34
	Commission/ Premium	0.08	0.07	0.07	0.07

Table 8. Comparison of Ratios by Firms - GM 2

Year	Ratio	National Insurance	New India Assurance	Oriental Insurance	United India Insurance
2010 - 11	Claims/ Premium	0.51	0.80	0.98	0.43
	Commission/ Premium	0.09	0.07	0.07	0.07
2011 - 12	Claims/ Premium	0.43	0.80	0.81	0.40
	Commission/ Premium	0.07	0.06	0.06	0.06
2012 - 13	Claims/ Premium	0.38	0.75	0.79	0.34
	Commission/ Premium	0.06	0.06	0.05	0.06
2013 - 14	Claims/ Premium	0.41	0.93	0.55	0.44
	Commission/ Premium	0.05	0.08	0.05	0.05
2014 - 15	Claims/ Premium	0.52	0.59	0.64	0.43
	Commission/ Premium	0.06	0.07	0.05	0.06
Five Year Average	Claims/ Premium	0.45	0.77	0.75	0.41
	Commission/ Premium	0.07	0.07	0.06	0.06

The first hypothesis, when tested, did not provide any evidence to reject the null hypothesis. No difference is observed in the relationship of the independent variable, premiums collected, and the predictor variables (i.e. insurance claims paid by firms and commissions paid to sales agents) between different companies. It may also be noted that the first hypothesis was tested for both the markets considered together. However, for the second hypothesis, the null hypothesis is rejected since variability was observed in the relationship between the variables when tested separately across two different geographical markets. It is observed that for United India Insurance Company, Oriental Insurance Company, and New India Assurance Company, there is no difference between the research markets; for National Insurance Company, premiums collected is influenced by claims paid in GM 1, but not related to commissions paid. However, the same relationship does not stand for GM 2.

On further examination of the data, it is seen that the 5-year average ratio of commissions paid to premium collected across the two study geographies for the period for 2010 - 2011 to 2014 - 2015 varies for different companies (refer Table 7 and Table 8). It can be observed that the range of difference for the 5 year average is highest for National Insurance Company (i.e. 0.58 for GM 1 and 0.45 for GM 2). For other three companies, the range is between 0.07, which is a fair degree of variability, given all the companies have a similar structure of governance and portfolio of offerings across India. This ratio may be interpreted as for every ₹ 1 collected as premium, 58 paisa is spent on payment of insurance claims by National Insurance Company in GM 1 and 45 paisa in GM 2. This spend (i.e.5- year average) is as high as 76 paisa for Oriental Insurance Company and as low as 34 paisa for United India Insurance Company for GM 1 and 75 paisa and 41 paisa, respectively for GM 2. This leads to several conclusions about the performance of the firms in general.

These are as follows: The firms vary significantly in managing their claims; United India Insurance Company being the best and Oriental Insurance Company being the worst for the study markets. The different propositions that can be formulated on the basis of the above are - Oriental Insurance Company and New India Assurance Company, which have high exposure to risky insurance plans or their handling of customer claims are better as compared to United India Insurance Company. These propositions can be validated by further examination and study of the performance of the companies with a wider market coverage and hence, provide scope for future research. As far as the ratio of commission paid to sales agents to premiums collected is concerned, it is observed that the difference is lower between the two study markets. The 5- year average for GM 1 between the four companies varies between 0.7 and 0.8 ; whereas, it is between 0.6 and 0.7 for GM 2. This indicates that the

companies have similar structure as far as sales commissions are concerned across different markets and hence, variability is less. This proposition may be further validated with a wider coverage of markets and offers scope for future research.

Research Implications and Scope for Future Research

The findings of this research not only contribute significantly to the body of knowledge on general insurance companies in an emerging market context like India, but also provide rich practical implications for practicing managers in the insurance sector. To summarize the overall findings from the study carried out for four public sector general insurance companies across two geographic markets, it can be stated that :

(1) There is no difference between different public sector general insurance companies in terms of the relationship between premiums collected, insurance claims paid, and commissions paid to sales agents. Hence, it indicates that practicing managers of public sector companies view the three research variables in a similar fashion and managerial decisions are not different from each other. Therefore, if a company intends to differentiate from others, the attributes of the insurance product offered have to be different, that is, distribution reach, claims processing period, and age of the insurance product, to name a few. Thus, it leads to a need for deeper assessment of other parameters and means of operationalization of the variables for future studies to validate the findings.

(2) There is a necessity to consider more dimensions to further investigate the relationship between premiums collected, insurance claims paid, and commissions paid to sales agents. Some of the suggested dimensions may include outstanding claims (i.e. claims submitted but not approved by the company), number of years in operation (i.e. the age of the company and hence the legacy), senior management average experience (i.e. maturity of the senior leadership), to name a few. This would be another area of focus to contribute to theory building on this subject.

(3) On studying the performance across the two study markets, differences were observed between companies and hence, H2 was rejected. This indicates that different public sector companies behave differently across geographic markets in terms of the relationship between premiums collected, insurance claims paid, and commissions paid to sales agents. From the managerial perspective, it indicates that different markets have their specific characteristics and impact the performance across companies for the three study variables. Therefore, the marketer needs to assess the specific geodemographic characteristics across markets for different public sector firms for devising the strategy. From a future scope of research perspective, it may be worthwhile to infuse cultural diversity, that is, caste, language, ethnicity, to name a few; in addition to market characteristics, that is, employment opportunities, economic status of the market, and local political context.

The findings of the study are significantly different from other empirical studies on non life insurance. Noteworthy are, Desyllas and Sako (2013), who discussed an innovative business model in motor insurance which is based on pay-as-you-drive instead of fixed tenure; crop insurance business surviving on tax payers rather than insurance premiums and market share, a direct function of agent commission (Babcock, 2009); and few firms dominating the medical insurance market with brand loyalty driving insurance premiums and profits (Starc, 2014).

Conclusion

India as a country has a very diverse socioeconomic profile for different states and regions. Thus, these differences may account for any difference in the performance of firms as far as measuring premiums, claims, and commissions are concerned. Also, it is to be noted that the general insurance sector in India is dominated by public sector companies. However, these public sector companies are different in size and age in terms of years in operation. Though the ownership forms and policy measures are similar, the size and emphasis on geography of operations are different for different companies. Further, most of insurance sector research as found in extant literature focused on life insurance segments and non-life insurance is an under focused area.

This study addresses the void in literature by studying general insurance sector comparing the performance of all the major companies operating in the sector across the most critical dimensions of premiums collected, clams paid, and commissions paid to sales agents. While the scope of the study is limited to two geographic markets and three dimensions linked to the general insurance sector; the findings not only establish the linkages between the companies and geographic markets, but also lead to several areas of future research to strengthen the body of literature on general insurance industry in India. Expanding the geographical scope and inclusion of dimensions, namely, claims outstanding, number of years in operation, and senior management average experience are the areas of future research. The paper not only attempts to strengthen the theoretical base, but also has significant managerial implications for general insurance practitioners by establishing linkages between the relevant dimensions measuring firm performance in general insurance.

Limitations of the Study

There are several limitations of the study. They include expanding the scope of the study by including more geographical markets spread across different cultural contexts, that is, South Indian states versus North Indian states. Secondly, the findings of this study have been based on three key variables characterizing the general insurance industry. More number of variables could be included in the study to have a more holistic view of the regression model. Thirdly, a comparison with few private general insurance companies could also be attempted to provide a better perspective of the industry, more so as more private companies are entering the Indian general insurance industry. The above identified limitations of the study shall remain a focus area of research for the future.

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