

“AN EVALUATION OF FINANCIAL PERFORMANCE WITH RESPECT TO PRODUCTIVITY AND PROFITABILITY OF PUBLIC SECTOR GENERAL INSURANCE COMPANIES OPERATING IN INDIA”

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ABSTRACT

India is being the 5th largest economy in the world and also ranking 15th in the area of insurance contributing nearly 2.73% into the worlds insurance. The intention behind conducting the study was to assess the financial performance of public sector general insurance companies which are operating in India and identifying the driving factors, parameters and various indicators which were determining the performance of public sector general insurance company with respect to productivity and profitability and also by identifying the valid reasons for decline in its growth in general insurance sector. The study has been conducted by considering some of the key dependent variables such as ROP and independent variable such as ROA, NPM, YOTI, CTR, DPR, IR, RI, GR, UER, LR, IP, ID, SM and IFR would be impacting the performances. Basically Four public sector general insurance companies such as National Insurance Company, New India Assurance Company Limited, United India Assurance Company Limited & Oriental Insurance Company Limited which are having a market share of 49.3% in Non-life sector has been considered for the study. Study has been carried out for a period of 10 years i.e. from 2011-12 to 2020-21. Statistical test such as correlation & regression analysis were employed in the study for effective analysis, findings of the study revealed that the variables such as YOTI and RI has a significant on ROP where as ROA, NPM, CTR, DPR, IR, GR, UER, LR, IP, ID, SM and IFR does not have any significant impact on the ROP.Finally the study tries to conclude that YOTI has an impact of 39.5% and RI has an impact of 65.5% on ROP, where as rest of the variables are not impacting much on ROP.

Keywords: Return on Profit; Return on Asset; Net Profit Margin;Yeild on Total Investment; Capital Turnover Ratio; Dividend Payout Ratio; Interest Rate; Re-Insurance; Growth Rate; Unemployment Rate; Literacy rate; Insurance Penetration; Insurance Density; Solvency Margin; Inflation Rate.

JEL Classification: G22, G28, G32, G38.

1. INTRODUCTION

India is being the 5th largest economy in the world and also ranking 15th globally in the area of insurance contributing nearly 2.73% into the worlds insurance but still recording the lowest penetration rate. At present 53.89% contribution has been through the service sector out of the total GDP since insurance is also functioning under service sector where currently having a growth rate of 10-12% in respect to life insurance where as 16-18% growth has been witnessed YOY with respect to general insurance. Basically this sector needs an elevation to flourish in the market of uncertainties by adapting a suitable business models projecting positive growth in this sector, realising the companies about its core businesses they are in, moving ahead with the changes that are taking place worldwide needed to be addressed. Currently insurance has been considered as one of the stable industry when it is been compared with rest of the industry. Insurance industry has been ranked 4th in terms of new business application growth.

TABLE 1.1 SHOWING THE WORLDS GDP

Rank	Country	GDP(Trillion \$)	Share of worlds GDP (%)
01	US	19485.4	24.08
02	China	12237.7	15.12
03	Japan	4872.4	6.02
04	Germany	3693.2	4.56
05	India	2650.7	3.28

(Source: www.worldometers.info)

From the Above Table 1.1 shall show the top 5 ranking of countries in terms of GDP and contribution made by these countries to the worlds GDP. US economy which has contributed around 19,485.4 Trillion \$ ranking No.1 in the world contributing around 24.08% to the worlds GDP, followed by China which has been ranked No.2 which has a GDP of 12,237.7 Trillion \$ contributing around 15.12% to the worlds GDP, Japan ranking No.3 globally having a GDP of 4,872.4 Trillion \$ contributing nearly 6.02% to the worlds GDP, Germany which is ranking No.4 which has a GDP of 3,693.2 Trillion \$ contributing around 4.56% to the worlds GDP and finally its India ranking No.5 in the financial year 2021-22 globally having a GDP of 2,650.7 Trillion \$ contributing nearly 3.28% to the worlds GDP.

TABLE 1.2 SHOWING INSURANCE CARRIERS & RELATED ACTIVITIES

Year	Total GDP (\$)	Insurance Carriers & Related Activities GDP(\$)	Percentage of total GDP (%)
2016-17	19,479.6	550.7	2.8
2017-18	20,527.2	590.7	2.9
2018-19	21,372.6	604.5	2.8
2019-20	20,893.7	640.3	3.1
2020-21	22,996.1	674.2	2.9

(Source: US department of Commerce Bureau of Economic Analysis)

From the above table 1.2 shall try to reveal the insurance carriers and related activities during the financial year 2016-17 to 2020-21 for the period of 5 years where during 2016-17 insurance has contributed around 2.8% to the total GDP , in the year 2017-18 it has contributed around 2.9%, in the year 2018-19 it has contributed around 2.8%, in the year 2019-20 it has contributed around 3.1% and in the financial year 2020-21 it has contributed around 2.9% respectively.

TABLE 1.3 SHOWING THE SHARE OF NON-LIFE INSURANCE COMPANIES IN INDIA DURING THE FINANCIAL YEAR 2020-21

Sector	Percentage (%)
Public Sector	49.3
Private Sector	36.2
Standalone Health Insurance	7.9
Specialised Insurers	6.6
Total	100

From the above table 1.3 shall try to reveal the share of Non-life insurance companies which are operating in india during 2020-21 where public sector having a market share of 49.3%, private sector which holds market share around 36.2%, where as standalone health insurance which is been holding a market share around 7.9% and finally specialized insurers holding a market share around 6.6% in the Indian general insurance Market for the financial year 2020-21.

CHART 1.4 SHOWING THE VARIOUS CHALLENGES THAT ARE FACED AT PRESENT BY THE GENERAL INSURANCE COMPANIES WHICH ARE OPERATING IN INDIA

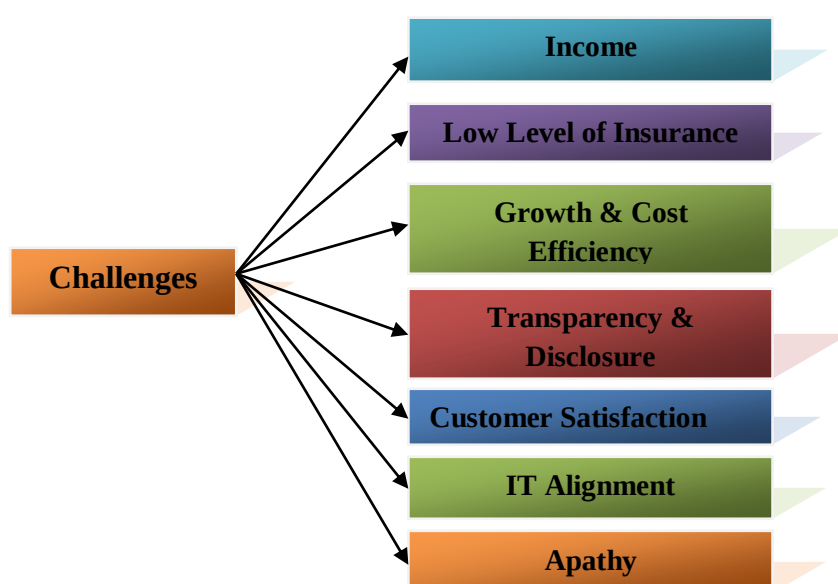
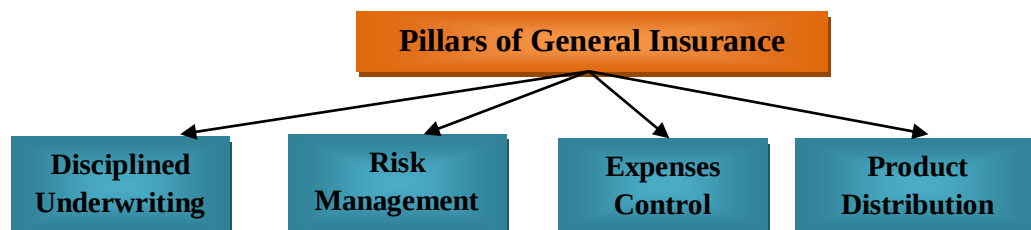


CHART 1.5 SHOWING THE MAIN PILLARS OF GENERAL INSURANCE



2.1 LITERATURE REVIEW

- ✚ (Chawla & Manrai, 2019)¹ in his research paper titled **“Determinants of Financial Performance of Selected Listed Manufacturing Firms in India”**, here the researcher has made a study on the financial performance of the manufacturing company by considering some of the dependent factors and independent factors where a sample of 35 companies were taken up for the study which were listed in NSE & BSE, study was conducted for a period of 5 years i.e. from 2011-12 to 2016-17. Regression, correlation, skewness & kurtosis statistical tools were employed in the study, findings of the study was that independent factors were causing positive impact on the financial performances of the company but in the paper the researcher could have thrown light to what extent (%) the independent factors are impacting & also possible ways on which the company performance could have been improved could have been highlighted in the study.
- ✚ (Morara & Sibindi, 2021)² In this research paper titled **“Determinants of Financial Performance of Insurance Companies: Empirical Evidence Using Kenyan Data”** here the researcher expresses his views that success of any industry shall depend on several stakeholders like government, policy makers, policy holders & investors. This paper shall focuses on the components contributing to the success of insurance industry for this purpose 37 general insurance companies were used as a sample size , where Hausman test has been conducted for better analysis , findings of the study revealed that age, leverage firm having a negative impact on the study.
- ✚ (Shawar & Siddiqui, 2019)³ in this research article titled **“Factors Affecting Financial Performance of Insurance Industry in Pakistan”** basically this paper shall make an in-depth study on various indicators impacting on the financial performance by selecting few dependent variables and independent variables in the study by considering 5 insurance companies operating in Pakistan where the study was conducted for a period of 5 years from 2013 to 2017, panel regression analysis was used for better analysis purpose in the study. findings of the study revealed that gross written premium shall have a significant impact on the financial performance, size of the organization shall have a negative impact on the dependent variable where as claims, reinsurance, GDP, Interest rate and management expenses shall have no effect on the performances of the companies selected in the study finally the paper tries to conclude that in order to improve the financial performance it has to focus more on the premium. Only

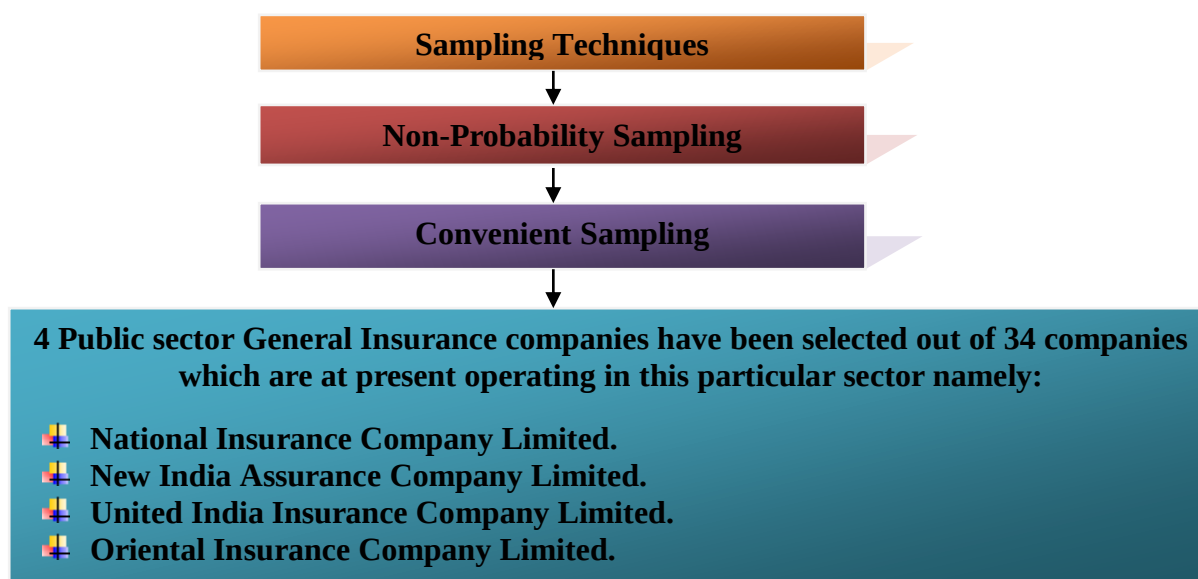
premium shall not decide the financial performance but on the other hand handling expenses also shall play a major role while study the financial performances this could have been highlighted in the study.

3. RESEARCH METHODOLOGY

3.1 OBJECTIVE OF THE STUDY

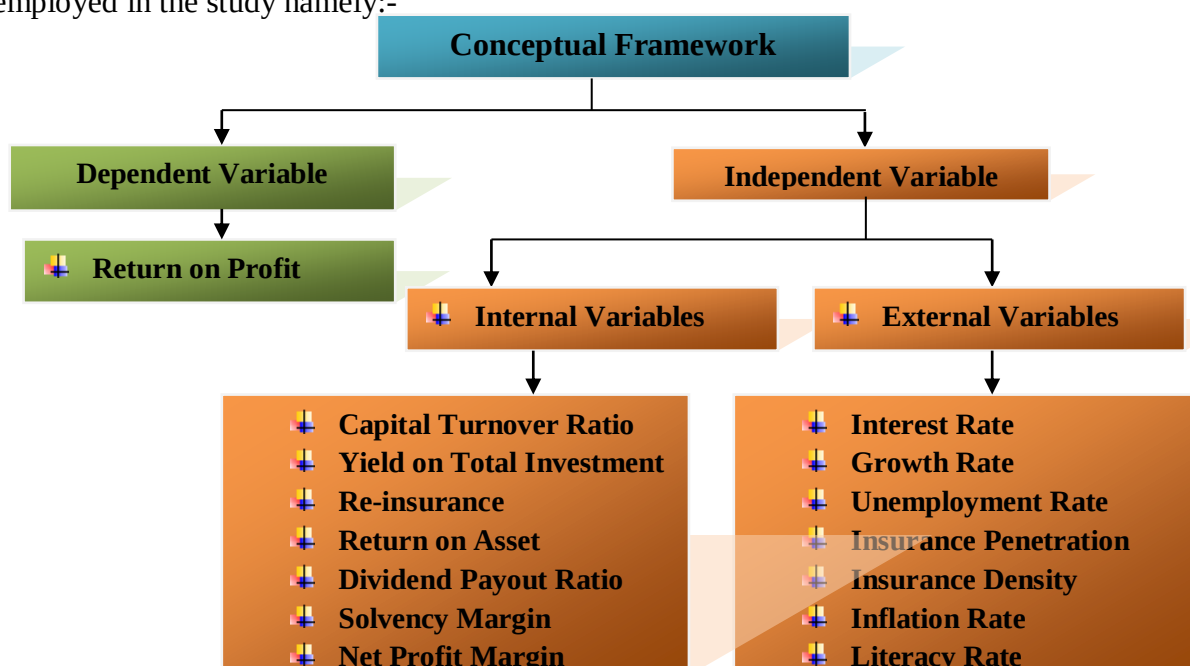
- ✚ To assess the financial performance of public sector general insurance company operating in India.
- ✚ To study the indicators impacting the financial performance of public sector general insurance company operating in India.

3.2 SAMPLING DESIGN



3.3 RESEARCH DESIGN

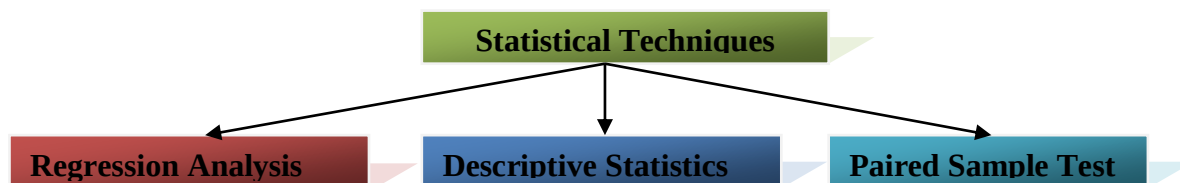
In this research paper the following are some of the key Dependent variable and Independent variable which were employed in the study namely:-



3.4 SAMPLE SIZE

Research paper shall include 4 public sector general insurance companies which are operating in India where the data has been collected through their financial reports that were presented during the last 10 years i.e. from the financial year 2011-12 to 2020-21 respectively.

3.5 STATISTICAL TECHNIQUES



In order to investigate the financial performance and its impact some of the key financial ratios have been employed along with regression analysis and Hausman Test for better analysis.

3.6 SOURCES OF DATA

Secondary sources of data have been used in conducting the study.

3.7 STUDY PERIOD

Study has been conducted for a period of 10 years that is from 2011-12 to 2020-21 respectively.

3.8 LIMITATIONS OF THE STUDY

- ✚ The Study has been confined only to 4 public sector general insurance companies operating in India.
- ✚ There shall be other indicators affecting the financial performances apart from the variables employed in the study henceforth results may vary.
- ✚ Only public sector general insurance company has been taken up for the study the same outcome may or may not hold good for the private sector general insurance companies operating in India.

3.9 HYPOTHESIS USED IN THE STUDY

H₀ : ROA,NPM, YOTI, CTR, DPR,IR, RI ,GR,UER,LR,IP ,ID,SM does not have a significant impact on ROP

H₁ : ROA has a significant impact on ROP
H₂ : NPM has a significant impact on ROP
H₃ : YOTI has a significant impact on ROP
H₄ : CTR has a significant impact on ROP
H₅ : DPR has a significant impact on ROP
H₆ : IR has a significant impact on ROP
H₇ : RI has a significant impact on ROP
H₈ : GR has a significant impact on ROP
H₉ : UER has a significant impact on ROP
H₁₀ : LR has a significant impact on ROP
H₁₁ : IP has a significant impact on ROP
H₁₂ : ID has a significant impact on ROP
H₁₃ : SM has a significant impact on ROP
H₁₄ : IFR has a significant impact on ROP

4. DATA ANALYSIS AND INTERPRETATION

Table 4.1 Showing Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
RETURN ON ASSET	40	-5.70	6.29	1.0080	2.89784
YIELD ON TOTAL INVESTMENT	40	6.32	22.39	12.1793	4.08053
NET PROFIT MARGIN	40	-18.14	19.09	3.7488	8.88225
RETURN ON PROFIT	40	-29.50	14.68	-2.9493	10.20372
CAPITAL TURNOVER RATIO	40	18.68	39.47	30.4435	5.12985
DIVIDEND PAYOUT RATIO	40	.00	25.22	2.3412	6.45027
INTEREST RATE	40	.65	.87	.7290	.06080
REINSURANCE	40	.62	.93	.8240	.06800
GROWTH RATE	40	-6.60	8.70	5.4700	4.30957
UNEMPLOYMENT RATE	40	5.30	8.00	5.7000	.80000
LITERACY RATE	40	69.30	74.37	70.8210	2.35296
INSURANCE PENETRATION	40	.70	1.00	.8310	.11254
INSURANCE DENSITY	40	10.00	19.00	14.2200	3.83848
SOLVENCY MARGIN	40	.02	3.56	1.7370	.74852
INFLATION RATE	40	3.40	10.00	5.8100	2.14713
Valid N (list wise)	40				

Table 4.2 showing Model Summary

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.848 ^a	.718	.561	6.76350	2.029
a. Predictors: (Constant), INFLATION RATE, YIELD ON TOTAL INVESTMENT, UNEMPLOYMENT RATE, CAPITAL TURNOVER RATIO, REINSURANCE, INTEREST RATE, INSURANCE PENETRATION, SOLVENCY MARGIN, DIVIDEND PAYOUT RATIO, RETURN ON ASSET, LITERACY RATE, GROWTH RATE, INSURANCE DENSITY, NET PROFIT MARGIN					
b. Dependent Variable: RETURN ON PROFIT					

From the above table 4.2 depicting Durbin-Watson test score which is 2.029 which states that not to reject H_0 no evidence of auto correlation which indicates that score above 2 shall represents negative correlation, finally the acceptable range of Durbin-Watson test score is between 1.50 to 2.50 respectively.

Table 4.3 showing ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2916.898	14	208.350	4.555	.000 ^b
	Residual	1143.622	25	45.745		
	Total	4060.521	39			

a. Dependent Variable: RETURN ON PROFIT

b. Predictors: (Constant), INFLATION RATE, YIELD ON TOTAL INVESTMENT, UNEMPLOYEMENT RATE, CAPITAL TURNOVER RATIO, REINSURANCE, INTEREST RATE, INSURANCE PENETRATION, SOLVENCY MARGIN, DIVIDEND PAYOUT RATIO, RETURN ON ASSET, LITERACY RATE, GROWTH RATE, INSURANCE DENSITY, NET PROFIT MARGIN

From the above table 4.3 showing that the independent variables are statistically significant to predict the dependent variable where $F=4.555$, $p<0.05$ therefore the regression model is a goodness of fit for the data taken up for the study.

Table 4.4 Showing Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	44.667	85.726		.521	.607
	RETURN ON ASSET	-2.402	3.495	-.682	-.687	.498
	YIELD ON TOTAL INVESTMENT	-.991	.453	-.396	-2.186	.038
	NET PROFIT MARGIN	1.188	1.192	1.034	.996	.329
	CAPITAL TURNOVER RATIO	-.117	.315	-.059	-.371	.714
	DIVIDEND PAYOUT RATIO	.288	.305	.182	.944	.354
	INTEREST RATE	-64.554	37.323	-.385	-1.730	.096
	REINSURANCE	98.344	26.139	.655	3.762	.001
	GROWTH RATE	-.715	.687	-.302	-1.041	.308
	UNEMPLOYEMENT RATE	-3.100	3.508	-.243	-.884	.385
	LITERACY RATE	-.881	1.206	-.203	-.731	.472
	INSURANCE PENETRATION	12.807	42.922	.141	.298	.768
	INSURANCE DENSITY	.429	1.636	.161	.262	.795
	SOLVENCY MARGIN	.561	2.197	.041	.255	.801
	INFLATION RATE	-.414	.892	-.087	-.464	.647

a. Dependent Variable: RETURN ON PROFIT

5 FINDINGS OF THE STUDY

SUMMARY OF THE RESULTS

Variables	Indicators	P -Value	Impact	Decision
Internal	ROA	.607>0.05	Not significant	Accept H ₀
	NPM	.329>0.05	Not significant	Accept H ₀
	YOTI	.038<0.05	Significant	Accept H ₁
	CTR	.714>0.05	Not significant	Accept H ₀
	DPR	.354>0.05	Not significant	Accept H ₀
	RI	.001<0.05	Significant	Accept H ₁
	SM	.801>0.05	Not Significant	Accept H ₀
External	IR	.096>0.05	Not significant	Accept H ₀
	GR	.308>0.05	Not significant	Accept H ₀
	UEM	.385>0.05	Not significant	Accept H ₀
	LR	.472>0.05	Not significant	Accept H ₀
	IP	.768>0.05	Not significant	Accept H ₀
	ID	.795>0.05	Not significant	Accept H ₀
	IFR	.647>0.05	Not significant	Accept H ₀

From the above summary of findings independent variable (Internal Variables) such as YOTI & RI shall have a significant & positive impact on the ROP.

RESULTS OF PAIRED SAMPLE TEST

Pair	Dependent Variables	Independent Variables	P -Value	Impact	Decision
1	ROP	ROA	0.011<0.05	Significant	Accept H ₁
2	ROP	NPM	0.000<0.05	Significant	Accept H ₁
3	ROP	YOTI	0.000<0.05	Significant	Accept H ₁
4	ROP	CTR	0.000<0.05	Significant	Accept H ₁
5	ROP	DPR	0.004<0.05	Significant	Accept H ₁
6	ROP	RI	0.024<0.05	Significant	Accept H ₁
7	ROP	SM	0.005<0.05	Significant	Accept H ₁
8	ROP	IR	0.029<0.05	Significant	Accept H ₁
9	ROP	GR	0.000<0.05	Significant	Accept H ₁
10	ROP	UEM	0.000<0.05	Significant	Accept H ₁
11	ROP	LR	0.000<0.05	Significant	Accept H ₁
12	ROP	IP	0.025<0.05	Significant	Accept H ₁
13	ROP	ID	0.000<0.05	Significant	Accept H ₁
14	ROP	IFR	0.000<0.05	Significant	Accept H ₁

From the above summary of findings with respect to paired sample test it is evident that all the independent variables irrespective of Internal variables or External variables has a significant impact on the ROP when tested pair wise, the results stating that whatever variables (Independent) which has been taken up for the study has created a significant impact on the ROP.

6. SUGGESTIONS

- ✚ Management of all the four public sector general insurance companies need to analyse the independent variables taking up individually if possible need to take up necessary measures in monitoring its reaction to what extent it is reacting on the financial performances so that financial betterment can be brought in the near future.
- ✚ Attention should be given towards improving its quality investments since the amount collected from the investors in the name of premium management should identify the right place for its investments why because YOTI has a beta score of -0.396 which means that YOTI is impacting negatively on the productivity & profitability with respect to the financial performance henceforth to earn better returns in order to helping out in meetings its obligation need to focus on the decisions taken with respect to YOTI.
- ✚ In terms of Re-insurance management should identify its core strengths in handling its business model efficiently in order to succeed in its business.

7. CONCLUSION

The study tries to conclude that the Independent variables which includes internal variable and external variables which can also be termed as controllable factors & uncontrollable factors not fully but partially some of the independent variables (YOTI & RI) has a significant impact on the dependent variable which is ROP from the summary table it is evident that out of 14 independent variables only 2 variables has a significant impact on the ROP, but when paired sample test was conducted between Independent Variables and Dependent Variables individually all the 14 independent variables has shown a significant impact on the ROP. Not only the above said variables will solely affect the financial performances of the general insurance companies operating in india but there are still more variables which is needed to addressed, tested and validated which are premium growth rate, management expenses, Non-performing Assets and many more should also be checked whether these factors shall have a significant impact on the financial performances if yes to what extent needed to be stressed by the management with respect to productivity & profitability of public sector general insurance companies operating in India.

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