A Comparative Study of Public and Private Personal Accidental Insurance Sector in India

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Abstract:

Personal accidental insurance is one of the contributors of the growth of general insurance industry in India. The growth of this sector is important from the perspective of overall growth of general insurance industry. This paper provides an understanding on the growth and role of public and private sector PAI. The data is mainly collected from secondary sources. The information collected are presented through appropriate Tables and analyzed. Methodology used for the study Mann-Whitney U- Test was applied to establish significant difference in the growth of public and private sector. The Insurance companies are competing in terms of policies sold, collection of premium and others. Competition is getting intense with the entry of private company. Private sector insurance company plays an important role in the personal accidental insurance. In the context of insurance service, there is a change in the thought of society towards private insurance companies due to various reasons. There are excellent opportunities for companies in the Indian PAI.

Keywords: PAI (Personal Accidental Insurance), IRDA, Annual growth rate (AGR), General Insurance, Standalone Insurance.

Introduction:

According to the ministry of road transport and highways, 4.12 lakh accidents occurred in 2021 and 1.54 lakh people died due to accidents on Indian roads. Road accidents can result in serious bodily injury and unfortunately even death. Hence, PAI is important to reduce the impact of financial loss to the policyholders and beneficiaries. PAI is an annual policy that provides complete financial protection to the insured members against uncertainties like accidental death, accidental bodily injuries, and partial/total disabilities, permanent and temporary disabilities resulting from an accident. In case of accidental death of the insured member, the nominee gets 100% compensation from the insurer. No accident knocks on the door. It can happen anywhere, anytime and can result in minor to serious injuries. Any such uncertainty may lead to financial crisis, and that's why it is a good decision to buy a personal accidental insurance policy. There are also various other benefits such as accidental hospitalization cover, hospital confinement allowance, and medical expense cover.

National insurance company limited is one of the oldest and leading general insurance company launched the national janata personal accident policy. Its covers death, permanent total disability and permanent partial disability to individuals

as well as their families. The insurance industry has grown significantly mainly due to liberalization of economy and general awareness. In the year with the introduction of IRDA bill was sanctioned in1999 in the parliament IRDA regularized and statutory control to insurance sector time to time. Presently there are 29 PAI companies out of which 4 are public and 25 private companies (including 5 standalone) operating in the country.

Review of literature:

Kang et al.(1994) conducted a study on Personal accident, health and travel insurance : protecting you and yours. personal accident, health and travel insurance: you and your safety. Discusses with personnel in the insurance industry the factors that need to be considered in the selection of such insurance plans.

Buccelli et al. (2006)conducted a study on Personal accident insurance in Italy: future perspective In Italy, over the last decade, the accident insurance policy has made undeniable progress in terms of biology and jurisprudence, in relation, respectively, to the modifications to risk delimitation and the abolition of illegal or unconscionable clauses.

Ionescu(2010) conducted a case study on the profit percentage of the personal accident insurances. Comparative analyze of two life insurance products of the most important insurance company from the Romanian market. The two products analyzed includes the presentation of the financial aspects, especially, and the estimated profit of the products.

Sulaiman(2015) The study revealed that three factors will influence the level of awareness of policyholder towards the personal accident insurance, which are the marketing, level of income and level of knowledge and both have a positive strong correlation in influencing the policyholders to buy the PAI.

Abd Aziz, et al (2013) conducted a *study on* factors that make Personal Accident Insurance is importance in relation to road accident injuries. The researchers suggested three factors that can make personal accident insurance is important towards motor insurance and weather affect to personal accident.

Vithiyalani & Fernando, (2016)examined the private motor car insureds' cross selling viability on dwelling house and personal accident insurance policies in Sri Lankan non-life insurance industry.it revealed that cross selling direct antecedents namely cross selling self-efficacy, motivation and role clarity were valid predictors of cross selling sales performance and there was a positive impact by those variables.

Santos, (2018) conducted a study on Predictive modelling applied to propensity to buy personal accidents insurance products. Its revealed that an excellent opportunity to apply the theory in a commercial scenario. Although the deployment of the model was not made for a specific personal accident product campaign it has been integrated into other projects such as customer Next Best Offer and Customer Lifetime Value: both projects require a probability estimate for personal accident acquisition.

Zhou(2022) revealed that PAI coverage in Shanghai is about 33%.the top two reasons

are the claim settlement and the bad impression on PAI, accounting for 64.41% and 29.66% respectively. The unwillingness to purchase PAI has been mainly ascribed to the residents' weak awareness of the PAI, due to either subjective reasons or objective reasons.

Kazem(2022) conducted a study on Integration of personal accident insurance and its impact on the profitability of the group insurance portfolio.The study concluded that the phenomenon of merger is one of the most important strategic options that insurance companies take to move from their current position to the better one, and merger is one of the contemporary economic features.

(Nia & Niavand, n.d.) conducted a study on Performance Of Personal Accident Insurance: Case Of Study Iranian Insurance Companies . Its revealed that according to 6 indexes (Earned Premium, Paid Claims, Loss Ratio, Number of Insurance Policies, Loss Frequency, and Severity of accident) reflects the growth and share of the domestic market

(Nia et al., 2021) conducted a study on Determination of Risk Factors for Personal Accident Insurance in Iran .Its revealed that the level of risk according to a job is not sufficient for personal accident insurance; 8 risk factors are significant, therefore, more than 1 factor influences the level of risk in PAI.

Research Gap:

Some researches have been done on PAI self-mutilation and private accident insurance, PAI in italy: future perspective, profit percentage of the PAI. Influence of knowledge and awareness, factors influencing the purchase of PAI, determination of risk factors and factors that make PAI is importance in relation to road accident injuries and its impact on the profitability of, performance of PAI sector etc. After a comprehensive review of literature, it is understood that there has not been enough comparative study of public and private personal accident insurance companies in India.

Objectives of the Study:
- To study the performance of PAI Business in India with respect to public and private sector insurance companies.
- To compare the growth rate of PAI premium among public and private sector insurance companies.
- To find out the performance of public and private sector PAI companies in each category

Hypotheses:
The following null hypotheses are formed for the study.
1 There is no significant difference in the growth rate (AGR) of direct premium income among public and private sector PAI.
2. There is no significant difference in the growth rate of number of persons covered among public and private sector PAI.
3. There is no significant difference in the growth rate of new policies issued among public and private sector PAI.

Research Methodology:

The research is based on descriptive research. The study is based on secondary data collected from the annual reports and Handbook of IRDA from 2014-15 to 2021-

22, research articles and websites. An attempt has been made to evaluate the performance of the PAI in India. The information collected are presented through appropriate Tables and analyzed. The comparison of public and private PAI sector is analyzed by any significant difference in the growth of new policies issued, market share, premium collected and number of persons covered. For this purpose, Non- Parametric Test (Mann-Whitney U test) used.

Indian Insurance in World Perspective
India is one of the fastest growing insurance markets in the world. According to Swiss Re data, India is ranked 10th in the World insurance business with 1.85% market share in 2021. The share of India life insurance business was 76.14% while the share of non-life insurance business was 23.86%.India ranked 14th in the world In non-life insurance business.The Indian non-life insurance sector grew by11.30% growth during 2021 while world non-life insurance premium grew by only 8.37% .(*Annual Reports - IRDAI*, n.d.)

Insurance Penetration and Density in India

Table No. 1: Insurance Penetration and Density in India Non-Life Insurance sector

Year	Penetration (%)			Density		Total
	Life	Non-Life	Total	Life	Non-Life	
2014-15	2.60	0.70	3.30	44.0	11.0	55.0
2015-16	2.72	0.72	3.44	43.2	11.5	54.7
2016-17	2.72	0.77	3.49	46.5	13.2	59.7
2017-18	2.76	0.93	3.69	55	18	73
2018-19	2.74	0.97	3.70	54	19	74
2019-20	2.82	0.94	3.76	58	19	78

Source: Self compiled from IRDA Annual Reports

Table 2: Insurance penetration & density in Non -life Insurance sector in year 2021-22

	Penetration	Density US $
World average	3.9	492
United States	9.1	6356
India	1.0	22

Source: Self compiled from IRDA Annual Reports

PAI Companies in India

Public sector PAI with 35% of business share holds in market share. 4 public sector, 20 general insurances and 5 standalone PAI companies total 25 private sector PAI companies have established in the market.

Data Analysis and Interpretation:
This research study provides insight into the present status of Personal Accidental

Insurance in India and examines its growth over the last 8 years.

Table No. 3: Sector Wise Personal Accidental Insurance Premium collected in India

(In Crore)

Insurance	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Public sector	708	879	1492	1765	1688	1306	1573	2414
AGR		24.15%	69.74%	18.30%	-4.36%	-22.63%	20.44%	53.46%
A. General	1351	1561	1918	2424	2960	3282	2932	3722
AGR		15.54%	22.87%	26.38%	22.11%	10.88%	-10.66%	26.94%
B. Stand alone	94	170	267	395	561	617	595	778
AGR		80.85%	57.06%	47.94%	42.03%	9.98%	-3.57%	30.76%
Private Sector	1445	1731	2185	2819	3521	3899	3527	4500
AGR		20%	26%	29%	25%	11%	-10%	28%
Total	2153	2610	3677	4584	5209	5205	5100	6914
AGR		21.23%	40.88%	24.67%	13.63%	-0.08%	-2.02%	35.57%

Source: Self compiled from IRDA Annual Reports.

Table no 3 shows the PAI premium collected by Personal accidental insurance companies in India grew from Rs2153 (crore) in 2014-15 to Rs6914cr. in 2021-22. Personal accidental premium collected by public sector at Rs2414cr. and the participation of private sector Rs4500cr. of which Rs3722cr. is from general and Rs778 cr. has been contributed by standalone companies from the F.Y 2021-22. The AGR of PAI Premium collected over previous years is always positive, except for the year 2019-20 ,2020-21 when the growth rate was -0.08% & -2.02%.The Standalone companies highest growth rate has been observed as 80.85% in 2015-16and the lowest growth rate -22.63% in Public sector in 2019-20. The premium collection by Private Sector dealing exclusively with PAI indicated an upward trend. This growth rate shows the increased the level of awareness toward PAI among the people in the India.

Table No. 4: Mann –Whitney U-test for Growth Rate (AGR) of Premium income of Public and Private Sector

Value	Value	N	Mean rank	Sum of rank	U value	sig. (2 tailed)
Mean	20.57	7	4.71	51	23	.848
S.D.	23.54	7	10.29	54		
		14				

Source – calculated by spss-26

The tabulated probability for n₁ =7, n₂ =7 and U = 23 is .848, which is less then (5% level of significance).

Table No. 5:   Sector Wise Number of Persons Covered Under PAI

(in lakh)

Insurance	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Public sector	764	3609	6423	6983	6990	7589	5201	5933
AGR		372.38%	77.97%	8.72%	0.10%	8.57%	-31.47%	14.07%
A. General	2437	826	2242	4619	4944	7859	4784	5381
AGR		-66.11%	171.43%	106.02%	7.04%	58.96%	-39.13%	12.48%
B. Stand alone	30	38	55	83	141	184	177	251
AGR		26.67%	44.74%	50.91%	69.88%	30.50%	-3.80%	41.81%
Private Sector	2467	864	2297	4702	5085	8043	4961	5632
AGR		-65%	166%	105%	8%	58%	-38%	14%
Total	**3231**	**4473**	**8720**	**11685**	**12075**	**15632**	**10162**	**11565**
AGR		**38.44%**	**94.95%**	**34.00%**	**3.34%**	**29.46%**	**-34.99%**	**13.81%**

Source: Self compiled from IRDA Annual Reports.

Table no.5shows the Personal accidental insurance companies no. of persons covered in India grew from 3231(lakh) in 2014-15 to 11565(lakh)in 2021-22. Persons covered by public sector at 5933(lakh) and the participation of private sector 5632(lakh) of which 5381(lakh) is from general insurance and 251(lakh) has been contributed by standalone companies from the F.Y.2021-22. The AGR of persons covered over previous years is always positive, except for the year 2020-21 when the growth rate was -34.99%. The public sector highest growth rate has been observed as 372.38% in 2015-16and the lowest growth rate show in private general insurance as -66.11% in 2015-16. No. of persons covered under public &private sector insurers grew, both insurers put efforts to improve its performance.

Table No. 6: Mann –Whitney U-test for Growth Rate of Number of Person Covered by Insurance Sector

Descriptive statics	Value	N	Mean rank	Sum of rank	U value	sig. (2 tailed)
Mean	49.88	$N_1 = 7$	4.71	54	23	.848
S.D.	110.63	$N_2 = 7$	10.29	51		
		14				

Source – calculated by spss-26

The tabulated probability for $N_1 = 7$, $N_2 = 7$ and U =23 is .848 , which is more than .05 , P >.05 (5% level of significance).

Table No.7: Sector wise New Policies issued in PAI (in lakh)

Insurance	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Public sector	31.74	33.86	25.32	22.67	25.26	20.37	19.13	19.08
AGR		6.68%	-25.22%	-10.47%	11.42%	-19.36%	-6.09%	-0.26%
A . General	44.09	47.8	38.7	80.11	116.1	81.64	49.27	42.18
AGR		8.41%	-19.04%	107.00%	44.93%	-29.68%	-39.65%	-14.39%
B. Stand alone	2.08	4.36	6.18	7.27	9.96	10.59	12.05	15.29
AGR		110%	42%	18%	37%	6%	14%	27%
Private Sector	46.17	52.16	44.88	87.38	126.06	92.23	61.32	57.47
AGR		**13%**	**-14%**	**95%**	**44%**	**-27%**	**-34%**	**-6%**
Total	**77.91**	**86.02**	**70.2**	**110.05**	**151.32**	**112.6**	**80.45**	**76.55**
AGR		**10.41%**	**-18.39%**	**56.77%**	**37.50%**	**-25.59%**	**-28.55%**	**-4.85%**

Source: Self compiled from IRDA Annual Reports.

The Personal accidental insurance sector new policies issued (nos.) in India grew from 77.91(lakh) in 2014-15to 151.32(lakh) in 2018-19 but thereafter started declining and reached 76.55(lakh) in 2021-22. The AGR of new policies issued (nos.) positive for the year 2015-16, 2017-18,2018-19 was 10.41%,56.77% and 37.50%respectively. The public sector AGR has been negative for the year 2016-17, 2017-18 ,2019-20 to 21-22, when the growth rate was -25.22%, -10.47%, -19.36%, -6.09%and -0.26% respectively. The Private Sector highest growth rate has been observed as 95% in 2017-18 and also the lowest growth rate as -34% in 2020-21. PAI policies issued around 76.55(lakh)which covered a small part of population. Private insurers put efforts to improve performance year after year and affected the public sector in many ways.

Table number8: Mann –Whitney U-test for AGR of New Policies issued by Public and Private Insurance Sector

Mean	S.D.	N	Mean rank	Sum of rank	U	Sig. value
1.97	33.42	$N_1 = 7$	5.43	38	10	.064
		$N_2 = 7$	9.57	67		
		Total =14				

Source – calculated by spss-26

The tabulated probability for n1 =7 , n2 =7 and U =10 is .064 , which is more than .05 , P >.05 (5% level of significance) hence, the null hypothesis framed for this study is Accepted .

Table no 9: Percentage Share of Premium Public And Private Sector

Insurance	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Public sector	32.88%	33.68%	40.58%	38.50%	32.41%	25.09%	30.84%	34.91%
A . General	62.75%	59.81%	52.16%	52.88%	56.82%	63.05%	57.49%	53.83%
B. Stand alone	4.37%	6.51%	7.26%	8.62%	10.77%	11.85%	11.67%	11.25%
Private Sector	**67.12%**	**66.32%**	**59.42%**	**61.50%**	**67.59%**	**74.91%**	**69.16%**	**65.09%**
Total	**100 %**	**100 %**	**100 %**	**100 %**	**100 %**	**100.00%**	**100 %**	**100 %**

Source: Self compiled from IRDA Annual Reports.

The public sector contributes a share of PAI premium at 34.91%. The participation of private sector insurers65.09%, of which53.83% is from general insurance and 11.25% has been contributed by standalone companies of the PAI premium from the F.Y.2021-22. Share of general insurance companies in premium has decreased 53.83% inF.Y.2021-22 from 62.75% inF.Y.2014-15. Share of standalone companies in PAI premium has increased 11.25% in F.Y.2021-22 from 4.37% in F.Y.2014-15 and the share of public sector has also increased from 32.88% in F.Y.2014-15 to 34.91% inF.Y.2021-22. General insurance and standalone insurers put efforts to improve performance. private insurer is more efficient, customer friendly and play a major role in facing competition from the public sector.

RESULTS AND INTERPRETATION

In order to know whether there is any statistically significant difference in the growth rates of public and private PAI sector in terms of the parameters like premium received, new policies issued, and number of persons covered, Mann-Whitney-U-Test was applying. For testing the null hypothesis, which is laid down, the U value was calculated. The results of Mann-Whitney-U- Test is given below.

Table no 10: Result and Discussion -

Hypothesis	Particulars	Tabulated U Value	Result
H_{01}	Direct Premium Received	0.848	Accepted
H_{02}	Number of persons covered	0.848	Accepted
H_{03}	Number of new policies issued	0.064	Accepted

Source: Calculated Value by spss-26

H_{01}: The tabulated probability for n1 =7, n2 =7 and U = 23 is .848, which is more then (5% level of significance) hence, the null hypothesis framed for this study is Accepted. That means there is a no significant difference in the AGR of direct premium income among public and private insurance sector.

H_{o2}: The tabulated probability for n1 =7, n2 =7 and U =23 is 0.848, which is more than 0.05, P > 0.05 (5% level of significance) hence, the null hypothesis framed for this study is Accepted. That means there is a no significant difference in the AGR of number of persons covered among public and private insurance sector.

H_{o3}: The tabulated probability for n1 =7, n2 =7 and U =10 is .064, which is more than .05, P >.05 (5% level of significance) hence, the null hypothesis is framed for this study is Accepted. That means there is a no significant difference in the AGR of new policies issued among public and private insurance sector.

Conclusion:

PAI provides compensation for bodily injuries, damage or dismemberment resulting from an accident, drowning or general bodily injury caused by an accident while travelling. Accident insurance has become necessary to protect oneself from any such untoward incident that may render a person temporarily unwell.

Private sector plays an important role in the PAI. In the context of insurance service, there is a change in the thought of the society towards private insurance company due to various reasons. The private insurance company was started in the year 2001, for almost 23years they are sustaining mainly because they are providing good service from the customers. They have the ability to compete with the public sector insurance company and with their good customer services, they are expecting a stable market for their products, for this they are planning every day to stay in the market.

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