

Measuring difference on the comparison of LIC vs. PLIC in terms of functional performance in post liberalization landscape

Dr. Jayant D. Chandrapal

Development Officer, LIC of India - Ahmedabad (India)

1. Introduction

Liberalization of Indian life Insurance sector has proliferated intense competition between LIC of India (LIC) and Private Life Insurance Companies (PLIC). Increased competition witnessed easy market access, insurance awareness, increased education on financial planning, more pronounced specialization, aggressive promotional campaigns, competitive pricing, wider choice of the products, alternative distribution channel, multiple premium payment gateways, visually appealing physical evidences, training initiatives to create skilled workforce, new job opportunities and so on. All these changes have contributed in the growth and development of new business performance.

The first year premium Rs 15976.76 crore was underwritten and 245.46 lakh new policies were issued in the year 2001-02. Over a period of time, LIC has procured first year premium Rs. 31904.49 crore and issued 345.12 lakh new policies in the year 2013 - 14. Thus LIC has enrolled a significant growth in respect of procurement of new business in post liberalization landscape.

PLIC have also performed well; in the year 2002-03 they have underwritten Rs 965.49 crore first year life insurance premiums along with 8.25 lakh new policies. Over a period of time they also have exhibited significant growth. In the year 2013-14, PLIC have underwritten Rs 29510.87 crore first year life insurance premiums on 63.60 lakh new policies. Thus the post liberalization phase had witnessed an expansion of market size in terms of sales.

Computerization and technological development encouraged a value exchange model with a speed, precision and quality in the services rendered by the insurers. Maria and Rao concluded based on the standard SERVQUAL dimensions that LIC is good at Reliability, Assurance and Empathy features than at Tangibles, Responsiveness features of the life insurance service (Ponreka Maria D. and Surya Rao U., 2009).

Bala et al concluded that PLICs are good at the service delivery where as the service quality level of LIC was unsatisfactory. They recommended that the LIC has to take corrective measures and focus on quality improvement to increase its effectiveness (Bala et al, 2011).

There are numerous studies that have verified the transition of Indian life insurance industry. Various studies have paid focus on the comparison of LIC vs. PLIC in respect of their financial performance.

2. Literature Review

Schoeffler and Oak indicated that the Key Performance Indicator (KPI) is commonly used by an organization to

evaluate its success in reaching its strategic goals by measuring the performance of the critical activities toward a goal. They enumerated some example of key performance indicator of the firms in terms of sales and customer services (Bill Schoeffler and Catherine Oak, 2014). Derbali and Jamel observed that the variables size, age and growth are the most important determinants of the performance of Tunisian insurance companies (Abdelkader Derbali and Lamia Jamel, 2014).

Puri and Gill observed quality of service is an important aspect, and Private respondents rate overall satisfaction in providing services on the basis of Assurance, Empathy, Personalized financial planning. LIC respondents rate overall satisfaction in providing services on the basis of corporate image, Assurance and Technology (Pooja Puri and Harinder Singh Gill, 2017). Naidu and Paramasivan observed private life insurers used the new business channels of marketing to a great extent when compared with LIC. Selling more unit-linked plans helps PLIC grab market share from LIC. Investment pattern of LIC and private insurers also showed some differences. Solvency ratio of private life insurers was much better than LIC in spite of big losses suffered by them. Lapsation ratio of private insurers was higher than LIC and servicing of death claims was better in case of LIC as compared to private life insurers (C Kalpana Naidu and C Paramasivan, 2015). Gairola concluded that different life insurance companies increased the competition in this industry. This level of competition has increased the number of innovative and attractive insurance plans, better customer services and increased insurance awareness in India (Gairola, 2016). Sonal indicated that the private companies were taking away the market share by bringing new and innovative products to suit the needs of customers, building a strong distribution network, strong advertisement and finding new markets for their products (Sonal Purohit, 2013). Ashturkar concluded LIC has maintained higher percentage of claim settlement ratio and hence increased its market share. Higher percentage of the claim settlement also indicates that the top six companies have been more transparent in the claim management and they adhere to the provisions of Protection of Policyholder's Interest Regulations 2002 (Ashturkar, 2014). Sharma and Chauhan shows that the LIC continues to dominate the sector. Private sector insurance companies also tried to increase their market share. Private life insurers used the new business channels of marketing to a great extent when compared with LIC (Vikas Sharma and Dr. Sudhinder Singh Chowhan, 2013). Sushma observed that there is no doubt LIC is leading player in the Indian Market; but slowly and steadily other private sector is also capturing the market and offering

challenge to the market leader LIC. (Mrs. Sushma K. Kotgiri, 2013). Sonika and Priti concluded that Private life insurers used the new business channels of marketing to a great extent when compared with LIC. Lapsation ratio of private insurers was higher than LIC and servicing of death claims was better in case of LIC as compared to private life insurers (Dr. Sonika Chaudhary and Priti Kiran, 2011). Bava and Chattha indicated various parameters that measure the business performance of life insurers such as Premium income growth over previous year, Market share in % and number of offices. The private life insurers show growth rate of 85.7% and public life insurer demonstrates 41.2% growth rate in five years (Dr. Sumninder Kaur Bawa and Samiya Chattha, 2013). Padhi and Satpathy pointed out that the increased consumer awareness and competition has brought more products and improved the customer service. As a result the market shares of LIC have reduced significantly. But while comparing the market shares of Public sector Insurance company LIC with the private sector insurance companies it is found that LIC still holds 70% market share and remains as the market leader in the insurance Industry (Bidyadhar Padhi and Mayadhar Satpathy, 2013). Chandan and Arora concluded that the private sector registered higher growth rate as compared to public sector in total new business premium income and the market share of the public sector insurer declined due to the entry of the private insurers (Chandan and R S Arora, 2015).

Thus the various studies were conducted in terms of the comparison of LIC vs. PLIC.

3. Literature Gap

There was a substantial amount of debate regarding effectiveness of LIC vs. PLIC in terms of evaluating financial performance such as Market share, New Business, Financial Ratios very few studies have evaluated functional performance. Moreover very few studies were conducted by methodological applicability and No study was found using multivariate analysis of variances. Therefore there is a huge scope for measuring difference on the functional effectiveness of LIC vs. PLIC by employing multivariate analysis of variances.

4. Objectives

Liberalization of Indian life insurance industry has transformed the insurance sector and Entry of PLIC paved a way for the intense competition in the Indian life insurance sector. Very purpose of the Liberalization of was to create an effective insurance market by way of increasing insurance penetration and density. Therefore it is mandatory to evaluate insurance industry in terms of effectiveness. The main purpose of this paper is to examine the the effectiveness of Indian life insurance industry in terms of overall functional performance and measuring main effects and interactions.

5. Hypothesis

Measuring difference on the comparison of LIC vs. PLIC in terms of functional performance in post liberalization landscape; the following hypotheses were emerged.

H₀₁ There is no significant effect of type of Gender on the linear combinations in comparison of LIC vs. PLIC in

terms of functional performance in the post liberalization landscape.

H₀₂ There is no significant effect of type of Place of Residence on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

H₀₃ There is no significant effect of type of Relationship with LIC on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

H₀₄ There is no significant effect of Employee's Position in LIC on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

H₀₅ There is no significant effect of type of Relationship with PLIC on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

6. Research Methodology

The research design was descriptive in nature that contained cross-sectional survey method. Disproportionate stratified sampling plan was applied to sample size of 552 respondents consist of Agents, Employees and Customers of LIC and PLIC. Data was collected through the questionnaire consist of 31 statements which were based on Likert Scale was classified and analyzed with the help of SPSS. Multivariate Analysis of variances was conducted to measure main effects and interactions.

7. Analysis and Results

The statistical procedures have included Descriptive statistics, Reliability analysis, Exploratory Factor Analysis and MANOVA.

Reliability score show for Services ($\alpha = .904$, Excellent) and Sales ($\alpha = .743$, Acceptable); they were found reliable with excellent internal consistency. Details of the test statistics are available upon request.

Exploratory factor analysis was employed, after three iterations conducted on the 15 items with orthogonal rotation (Varimax); rotated component matrix revealed its factor structure. Two components that revealed linear combinations namely "Services and Sales" were retained in the final analysis. Detailed test statistics will be provided upon request.

7.1 Examining the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape that might differentiate between Types of Gender.

H₀₁ There is no significant effect of type of Gender on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

7.1.1 Multivariate Tests to test significance of main effects and interactions

MANOVA test family was conducted to test the null hypothesis ' H_{01} ' that there would not be significant effect of types of Gender.

Table - 1 MANOVA test results (Design: Intercept + V3) in respect of H₀₁

Source	Multivariate test score (df _H :3 ^a , df _E :548)					Effect size (d)		Box's M test score ^c			
group	Effect	Value	F	Sig.	η ²	f ²	Power	M	df ²	Sig	
	Pillai's Trace	0.19	5.252	.006	.019	.02	0.83	28.56	871040.11	0.00	
V3 Gender (N=552)	DVs	Tests of between-subjects effects ^d					Effect size (d)		Levene's test ^g		
		MS _M ^e	MS _R ^f	F	Sig	η ²	f	Power	F	Sig	
		Services	.634	.345	1.840	.175	.003	.06	.27	3.07	.080
Sales	3.098	.324	9.562	.002	.017	.13	.87	28.00	.000		

a. Hypothesis df b. Error df c. Equality of variance-covariance matrices d. Univariate ANOVA d-e. (df₁:1, df₂:550)
 e. Mean square of model f. Mean square of residual g. Test of equality of variances η² = Partial Eta squared

Box M's test was conducted to test the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. Table 1 shows significant result of Box's M Test (28.56), $p (.000) < \alpha (.001)$.

Homogeneity of covariance was violated therefore based on Hair et al guideline; Using Pillai's Trace as a criterion of choice to test significance of main effects and interactions. **Pillai's Trace** reveals the significant value of F ratios and they all are found to be significant at $p (.000) < \alpha (.001)$.

The Levene's Test of Equality of Error Variances was conducted to test the null hypothesis that the error variance of the dependent variable is equal across groups. Summarized results indicate Statistical non-significance in respect of Services $p (.08) > \alpha (.05)$; however there was a statistical significance in respect of Sales $p (.000) < \alpha (.05)$.

To follow a significant MANOVA; **Univariate test** was conducted to understand the difference of group means on each dependent variable. Results of Univariate test that indicate that the effect of Types of Gender significantly influenced $p (.002) < \alpha (.05)$ on LIC_vs_PVT characterized by Sales; but non-significant result $p (.175) > \alpha (.05)$ in respect of Services was observed

The linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape Characterized by Services and Sales were measured across Males and Females. MANOVA analysis confirmed that there was a significant multivariate effect; it indicates Effect size:

- **(d) .02** (Small); Power (1 - β err prob) 0.83 (Excellent).

According to Cohen's (1988) guidelines, small effect size was observed; however Power (1 - β err prob) 0.83 indicates Excellent.

Univariate one way ANOVAs showed significant main effects for types of Gender and indicate effect sizes as follows.

- Services: ES (d) **.06** (Very small); Power (1 - β err prob) 0.27 (Low).

According to Cohen's (1988) guidelines; It indicates small Effect size and Power (1 - β err prob) **0.27** observe to be Low.

- Sales: ES (d) **.13** (small); Power (1 - β err prob) 0.87 (Excellent).

According to Cohen's (1988) guidelines; It indicates small Effect size; however Power (1 - β err prob) **0.87** observe to be Excellent.

7.2 Examining the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape that might differentiate between Types of Place of Residence

H₀₂ There is no significant effect of **Types of Place of Residence** on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

7.2.1 Multivariate Tests to test significance of main effects and interactions

MANOVA test family were conducted to test the hypothesis '**H₀₂**' that there would not be significant effect of types of Place of Residence in comparison of LIC vs. PLIC in terms of functional performance characterised by Services and Sales in the post liberalization landscape.

Table - 2 MANOVA test results (Design: Intercept + V2) in respect of H₀₂

Source	Multivariate test score (df _H :3 ^a , df _E :548)					Effect size (d)		Box's M test score ^c			
group	Effect	Value	F	Sig.	η ²	f ²	Power	M	df ²	Sig	
	Pillai's Trace	0.97	14.017	.000	.049	.05	0.99	71.311	330486.36	0.00	
V2 Place Of Residence (N=552)	DVs	Tests of between-subjects effects ^d					Effect size (d)		Levene's test ^g		
		MS _M ^e	MS _R ^f	F	Sig	η ²	f	Power	F	Sig	
		Services	6.232	.324	19.259	.000	.066	.06	.27	19.38	.000

Sales	8.048	.301	26.749	.000	.089	.13	.87	15.38	.000
a. Hypothesis df	b. Error df	c. Equality of variance-covariance matrices			d. Univariate ANOVA		d-e. (df ₁ :1, df ₂ :550)		
e. Mean square of model		f. Mean square of residual		g. Test of equality of variances		η ² = Partial Eta squared			

Table – 2 reveals significant result for **Box's M** (71.31), $p (.000) < \alpha (.001)$

Summary indicator **Pillai's trace** reveals the significant value of F ratio it was observed to be significant at $p (.000) < \alpha (.001)$.

Levene's Test indicate Statistical significance $p (.000) < \alpha (.05)$ in respect of Services and Sales.

Univariate Tests (ANOVA) indicate that the effect of types of Place of Residence (Rural, Semi Urban and Urban) significantly influenced $p (.000) < \alpha (.05)$

Structured Multi-group Test was conducted by using Post hoc analysis. Levene's test was statistically significant and hence assumption of equality of error variance for Services and Sales was violated; therefore based on Field's guide line Games–Howell test was conducted on all possible pair wise comparison among the place of residence. Detailed test statistics will be provided upon request.

Significant multivariate effect indicates **Effect size**:

- ES (**d**) **.05** (Small); Power (1 – β err prob) .99 (Excellent).

Significant Univariate ANOVAs indicates **Effect size**:

- Services: ES (**d**) **.26** (Medium); Power (1 – β err prob) .99 (Excellent).
- Sales: ES (**d**) **.31** (Medium); Power (1 – β err prob) .99 (Excellent).

7.3 Examining the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape that might differentiate between Types of Relationship with LIC.

H₀₃ There is no significant effect of **Types of Relationship with LIC** on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

7.3.1 Multivariate Tests to test significance of main effects and interactions

MANOVA was conducted to test the hypothesis '**H₀₃**' that there would not be significant effect of types of Relationship with LIC in comparison of LIC vs. PLIC in terms of functional performance characterised by Services and Sales in the post liberalization landscape.

Table - 3 MANOVA test results (Design: Intercept + V10) in respect of H₀₃

Source group	Multivariate test score (df _H :3 ^a , df _E ^b :548)					Effect size (d)		Box's M test score ^c		
	Effect	Value	F	Sig.	η ²	f ²	Power	M	df ²	Sig
	Pillai's Trace	0.682	142.10	.000	.341	.05	0.99	98.32	4673990.62	0.00
V10 Type of Relation with LIC (N=552)	Tests of between-subjects effects ^d					Effect size (d)		Levene's test ⁹		
	DVs	MS _M ^e	MS _R ^f	F	Sig	η ²	f	Power	F	Sig
	Services	49.768	.165	301.603	.000	.524	.06	.27	11.82	.000
	Sales	31.311	.216	144.886	.000	.345	.13	.87	4.365	.000

a. Hypothesis df	b. Error df	c. Equality of variance-covariance matrices			d. Univariate ANOVA		d-e. (df ₁ :1, df ₂ :550)		
e. Mean square of model		f. Mean square of residual		g. Test of equality of variances		η ² = Partial Eta squared			

Table – 3 reveals significant test results for **Box's M** (98.32), $p (.000) < \alpha (.001)$.

Pillai's Trace reveals the significant value of F ratios and it was observed to be significant at $p (.000) < \alpha (.001)$.

Levene's test indicate statistical significance $p (.000) < \alpha (.05)$.

Results of Univariate test indicate that the effect of types of Relationship with LIC significantly influenced $p (.000) < \alpha (.05)$.

Significant multivariate effect indicates **Effect size**:

- ES (**d**) **.52** (Large); Power (1 – β err prob) 1.00 (Excellent).

Significant Univariate ANOVAs indicates **Effect size**:

- Services: ES (**d**) **1.05** (Large); Power (1 – β err prob) 1.00 (Excellent).
- Sales: ES (**d**) **.73** (Large); Power (1 – β err prob) 1.00 (Excellent).

Structured Multi-group Test was conducted by using Post hoc analysis; based on Field's guide line Games–Howell

test was conducted on all possible pair wise comparison among types of Relationship with LIC. Detailed test statistics will be provided upon request.

7.4 Examining the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape that might differentiate between Employee's positions in LIC.

H₀₄ There is no significant effect of between Employee's positions in LIC on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

7.4.1 Multivariate Tests to test significance of main effects and interactions

MANOVA test family were conducted to test the hypothesis '**H₀₄**' that there would not be significant effect of types of Employee Position in LIC in comparison of LIC vs. PLIC in terms of functional performance characterized by Services and Sales.

Table - 4 MANOVA test results (Design: Intercept + V12) in respect of H₀₄

Source	Multivariate test score (df _H :3 ^a , df _E :548)					Effect size (d)		Box's M test score ^c		
group	Effect	Value	F	Sig.	η ²	f ²	Power	M	df ²	Sig
	Pillai's Trace	.762	65.29	.000	.381	.62	1.00	35.62	1115155.57	0.00
V10										
Type of Employee Position (N=552)	DVs	Tests of between-subjects effects ^d				Effect size (d)		Levene's test ^g		
		MS _M ^e	MS _R ^f	F	Sig	η ²	f	Power	F	Sig
	Services	8.077	.153	52.795	.000	.332	.71	1.00	6.525	.002
	Sales	8.330	.180	46.365	.000	.304	.66	1.00	3.847	.023

a. Hypothesis df b. Error df c. Equality of variance-covariance matrices d. Univariate ANOVA d-e. (df₁:1, df₂:550)
 e. Mean square of model f. Mean square of residual g. Test of equality of variances η² = Partial Eta squared

Table – 4 reveals result of **Box's M Test** (35.62) was a significant, $p (.000) < \alpha (.001)$

Pillai's Trace reveals the significant value of F ratios and they all are found to be significant at $p < .001$. Statistically significant MANOVA effect was obtained.

Results of **Levene's test** indicate Statistical significance $p (.002) < \alpha (.05)$ in respect of Services and $p (.023) < \alpha (.05)$ in respect of Sales.

Results of **Univariate test** indicate that the effect of types of Employee Position in LIC significantly influenced $p (.000) < \alpha (.05)$ on LIC vs. PLIC characterized by Services and Sales.

Significant multivariate effect indicates **Effect size**:

- ES (d) **.62** (Large); Power (1 – β err prob) 1.00 (Excellent).

Significant Univariate ANOVAs indicate effect sizes:

- Services: ES (d) **.71** (Large); Power (1 – β err prob) 1.00 (Excellent).

- Sales: ES (d) **.66** (Large); Power (1 – β err prob) 1.00 (Excellent).

Structured Multi-group Test was conducted Field's guide line Games–Howell test was conducted on all possible pair wise comparison among the place of residence. Detailed test statistics will be provided upon request.

7.5 Examining the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape that might differentiate between Types of Relationship with PLIC

H₀₅ There is no significant effect of between Types of Relationship with PLIC on the linear combinations in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape.

7.5.1 Multivariate Tests to test significance of main effects and interactions

MANOVA test family were conducted to test the hypothesis '**H₀₅**' that there would not be significant effect of types of Relationship with PLIC in comparison of LIC vs. PLIC in terms of functional performance characterized by Services and Sales in the post liberalization landscape.

Table - 5 MANOVA test results (Design: Intercept + V17) in respect of H₀₅

Source	Multivariate test score (df _H :3 ^a , df _E :548)					Effect size (d)		Box's M test score ^c		
group	Effect	Value	F	Sig.	η ²	f ²	Power	M	df ²	Sig
	Wilk's Lambda	.784	6.215 ^b	.000	.115	.05	0.99	6.323	5161.798	.427
V17										
Relation with Private Players (N=552)	DVs	Tests of between-subjects effects ^d				Effect size (d)		Levene's test ^g		
		MS _M ^e	MS _R ^f	F	Sig	η ²	f	Power	F	Sig
	Services	1.602	.128	12.501	.000	.205	.13	.99	1.760	.177
	Sales	1.509	.172	8.792	.000	.153	.51	.99	.950	.390

a. Hypothesis df b. Error df c. Equality of variance-covariance matrices d. Univariate ANOVA d-e. (df₁:1, df₂:550)
 e. Mean square of model f. Mean square of residual g. Test of equality of variances η² = Partial Eta squared

Table – 5 reveals non-significant result of **Box's M Test** (6.323) $p (.427) > \alpha (.001)$

Wilk's Lambada reveals the significant value of F ratios and they all are observed to be significant at $p (.000) < \alpha (.001)$.

Results of **Levene's test** indicates that there was a statistical non-significance in respect of Services $p (.177) > \alpha (.05)$ and Sales $p (.390) > \alpha (.05)$.

Results of **Univariate test** indicate that the effect of types of Relationship with PLIC significantly influenced $p (.000) < \alpha (.05)$.

Structured Multi-group Test was conducted Field's guide line Tukey's (HSD) post hoc procedures were applied on all possible pair wise comparison among the types of

Relationship with PLIC. Detailed test statistics will be provided upon request.

Significant multivariate effect and it indicates Effect Size:

- ES (**d**) **.13** (Medium); Power ($1 - \beta$ err prob) **.99** (Excellent).

Univariate ANOVAs indicate Effect Sizes as follow:

- **Services**: ES (**d**) **.51** (Large); Power ($1 - \beta$ err prob) **.99** (Excellent).
- **Sales**: ES (**d**) **.43** (Large); Power ($1 - \beta$ err prob) **.97** (Excellent).

8. Discussion of Results

The linear combinations Services and Sales were examined in respect of comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape. That might differentiate between Types of Groups such as Gender (V3), Place of Residence (V2), Relationship with LIC (V10), Employee position in LIC (V12) and Relationship with PLIC (V17); the initial **multivariate statistic** as well as structured multi group test suggests that

- Males were more influenced than female in respect of Services and Sales,
- Rural were less influenced than the Semi Urban and Urban. Whereas Semi urban were more influenced than Rural but less than Urban in respect of Services and Sales.
- In respect of Relationship with LIC, Agents were more influenced than the Customers but less than Employees; Employees were more influenced than Agents and Customers in respect of Services and Sales.
- Assistants/HGAs were more influenced than the Development Officers but less influenced than Class 1 Officers in respect of Services; Development Officers/SBAs were more influenced than Assistants/HGA but less influenced than Class 1 Officers in respect of Sales.
- In respect of Relationship with PLIC Advisors were less influenced than the Customers and Employees in respect of Services but they were more influenced

than Employee in respect of Sales; Customers were more influenced than Advisors and Employees in respect of Services and Sales.

Assumption of homogeneity of covariance was violated therefore based on Hair et al guideline Pillai's Trace was used as a criterion of choice to test significance of main effects and interactions in respect of **H₀₁, H₀₂, H₀₃, and H₀₄**. It was tenable therefore Wilk's Lambada was used in respect of **H₀₅**

The significant results **$p < \alpha$ (.05)** of these statistics reject **H₀₁, H₀₂, H₀₃, H₀₄**, and **H₀₅** therefore it was confirmed that the linear combinations Services and Sales might differentiate among the groups such as Gender (V3), Place of Residence (V2), Relationship with LIC (V10), Employee position in LIC (V12) and Relationship with PLIC (V17) in comparison of LIC vs. PLIC in terms of functional performance in the post liberalization landscape that might differentiate.

9. Conclusion

Present study has compared LIC vs. PLIC in terms of functional performance in the post liberalization landscape on the basis of services and sales; anomaly was found in the results of MANOVA and follow up ANOVA across the gender in respect of Services. Wide gap in the perception regarding LIC vs. PLIC was found among types of Relationship with LIC in respect of Services and Sales. Policy Holders have a large significant negative effect in respect of Services by mean differences in comparison with Employees. They also have a large significant negative effect by mean differences in respect of Sales in comparison with the Employees and Agents.

PLIC's performance is lagging behind the LIC's performance. However there was a continuous improvement in the claim settlement ratio in respect of PLIC. Status of grievances of life insurers reveals; LIC reported less no of grievances as compare to PLIC.

Results exhibited a perception of growth and development of PLIC in respect of services and sales in the post liberalization landscape; it indicates a challenge of stiff competition from PLIC in coming years. To get edge over the competition LIC of India has to formulate innovative as well as aggressive sales and service strategy by keeping customers in the centre.