

Life Insurance and Financial Inclusions in India

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ABSTRACT

Life insurance plays an important role in every individual's life. Life insurance policies not only provide financial security in a case in untold situations, they also provide a return on investment. The present research paper understands the role of life insurance policies in bringing financial inclusions and uplifting the feeling of security in rural population. The study also presents the research finding on role of three large life insurance schemes provided by Postal Life Insurance Schemes and Life Insurance Corporation of India. This study provides an over view of life insurance policies in bringing financial inclusions in rural population.

Keywords: *Life insurance; Financial inclusions; Economic development.*

1.0 Introduction

Liberalization of Indian economy has provided greater opportunity with regards to trade, employment and business. Liberalization has support in rapid economic growth in last two decades. Growth in economy must also be supported with inclusion of all the sectors of the economy, however, financial inclusion is a critical factor to support economic growth. The main focus of financial inclusions is to provide an opportunity for every individual to increase his savings in formal financial system of the county (Gopalan, 2010). Financial inclusions include opportunity in banking, insurance and other sector of financial institutions of an economy (Devi, M., and Singh, S., 2018). Apart from inclusion in formal financial system of an economy, financial inclusion ensures individuals with savings and securing financial future of an individual (Iyer et al., 2018). Government of India has floated Pradhan Mantri Jan Dhan Yojana (PMJDY), the main

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highlight is individuals can open a bank account with zero balance, this bank account provides banking transaction through debit cards, life insurance cover of Rs. 30,000 and an accidental insurance cover of Rs. 1 Lakhs. (Rebello, 2015). These measures have covered large number of individuals to enter formal system of financial transaction in India (Rebello, 2015). Postal services play a key role in providing financial inclusions through their savings schemes and other financial instruments to include all the individuals from urban and rural sector in main stream financial transactions and enhance their earning and savings (Srinivasan and Lakshmi, 2006). Life insurance corporation of India has also played a key role in financial inclusions through life insurance schemes in urban and rural parts of India (Rajendran and Natarajan, 2009). The above studies indicate that there has been a growth in financial inclusions in India. This study is undertaken to understand the growth of life insurance in India, especially Life Insurance Corporation of India, and postal life insurance schemes, as these schemes are popular in India and have played a key role in developing financial inclusions in India.

2.0 Literature Review

Rural population plays a key role in availing financial inclusions in our country and In this respect life insurance is critical for the future of individual. Therefore, to understand this factor literature review is conducted in the study.

Financial Inclusion promotes prudence and develops the culture of saving. It also enables efficient payment mechanism through formal banking system. It is possible to achieve financial stability, economic stability and inclusive growth without financial inclusion. (Dubhashi, 2015). The states are committed to its target of increasing the inclusion of every household in the financial system so that the masses can get all the legitimate benefits arising out of the growth of the country and in turn, the funds mobilised from the people are brought in the formal channel of banking and thereby giving the economy of the country an extra thrust to lead the path of growth (Government of India, 2017). Life insurance demand in India is growing due to opening of the sector to private insurance companies, the business of premium has grown over 35-40% per year, and the new companies have improved insurance awareness amongst the large number of individuals from urban and rural population through improved distribution channel and have brought competitive environment in life insurance sector of India (Bhattacharya, 2017). In the rural sector of India life insurance have underwritten by 11.3 million policies of which 44.1 million are the fresh policies in the year 2012-13. The major company are Life Insurance Corporation of India which has a market share of 25.44% in the new policies and other private insurance companies have

underwritten 26.99% in the rural sector of India. (Badlani, M.2015). Insurance companies in India have undertaken efforts to attract customers in urban and rural India to include the customers in insurance sector and provide an umbrella of protection to customers. Insurance companies also have provided product variation based on the income level of the consumers and these products are made available through vibrant delivery channel of distribution in rural India. Out of the total of 1210.2 million people in the country, the size of the rural population is 833.1 million which constituted 68.84% of total population, according to the Census 2011. During 2001-2011 the rural population increased by 90.4 million, and the number of villages increased by 2,279. The majority of world's rural population lives in rural India. With its vast size and wide array of consumers, the marketers of financial products such as life insurance have been exploring the opportunities to understand and penetrate rural markets. (Dubhashi, 2015). In a study conducted by Gupta, 2005 highlighted that to improve growth of life insurance in the rural sector of India insurance companies must improve on the accessibility of the policies, improved communication and enhance the network through agents in the rural sector on India. Like wise Gupta, 2005 mentioned that there is an enormous potential for growth of insurance products in rural part of India, insurance companies have developed strategies and enhance the market share for life insurance products and services. Study conducted by Kumar in the year 2008 showed that awareness of rural population with regards to life insurance is low due to issues related to lack of education and low awareness program by insurance companies and the same is indicated in the study conducted by (Rao, 2010). Satisfaction of customers with regards to life insurance is important as many Indian populations situated in rural India; the study conducted on the satisfaction level of rural customers shows that level of customer's satisfaction still needs to be improved with regards to better services to customers. (Badlani, 2015), hence the research on the role of life insurance for rural population indicates that awareness level amongst the rural population is moderate to low with regards to benefits of life insurance. From the perspective of life insurance as a measure for financial inclusion, measures taken by government of India through Pradhan Mantri Jan Dhan Yojana (PMJDY) has improved the number of individuals included in the mainstream of banking has increased amongst the rural population, apart from PMJDY organization run by Government of India like LIC and Post offices also provide Life insurance to the customers which have improved the number of individuals in life insurance products and services.

The above studies indicate that life insurance products and services have played an important role in bringing financial inclusions, however, the growth with regards to life insurance in comparison needs views and directions, which can provide greater

directions in bringing growth in life insurance sector in India. Hence, the present study formulates the following objectives

1. Growth of Life Insurance sector in India
2. Measure Life insurance performance and efficacy
3. Suggestions and directions with regards to growth of life insurance in India

In the next section, the study presents growth of life insurance sector in India and further comparison between Indian life insurance sector with other Asian countries. These two perspectives are important to understand and suggest measures to improve the growth of life insurance products and services.

2.1 Growth of life insurance sector in India

Life Insurance Corporation of India is the oldest and largest players in life insurance in India. Presently there are more 24 companies operating in this sector. This growth has placed India at 10 position in the world with regards to life insurance sales on new business and renewal of policies. The growth in insurance sector is measure with two factors, namely, insurance density and insurance penetration. Insurance density is measured through ration of premium to population in a country, while, insurance penetration is measures as the percentage of insurance premium to Gross Domestic Product (GDP). Table 1 presents the trend in Indian life insurance market for the period 2006 to 2016. The life insurance density has increased in India from 33.2 (USD) to 46.5 (USD). Market share of Indian insurance companies has increased over a period of time, growth and market share of insurance companies is presented in Table 2. Market Share of Indian insurance companies is presented based on the premium collected by the companies (Annual Report IRDA, 2018).

Table 1: Life Insurance Density and Penetration (2006 -2016)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Insurance Density	33.2	40.4	41.2	47.7	55.7	49.0	42.7	41.0	44.0	43.2	46.5
Insurance Penetration (%)	4.1	4	4	4.6	4.4	3.4	3.17	3.1	2.6	2.72	2.72

Source: IBEF, 2017

Financial inclusion through life insurance products in India is presented based on establishment of life insurance offices in India. Table 3 shows business establishment trend in life insurance Sector of India.

Table 2: Indian Life Insurance Sector Market Share Based on Premium

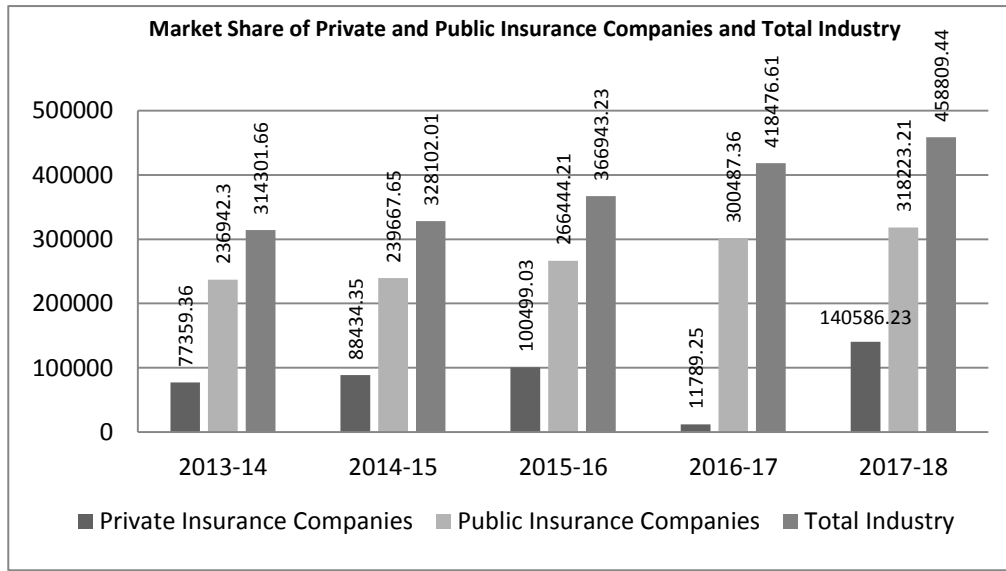
Insurer	2013-14	2014-15	2015-16	2016-17	2017-18
Aegon Life	453.00	559.20	501.60	450.72	531.21
Aviva	1878.10	1796.25	1493.15	1336.51	1344.22
BajajAllianz	5843.14	6017.30	5897.31	6183.32	7578.37
Bharti AXA	872.65	1053.32	1208.33	1396.50	1684.39
Aditya Birla Sun Life	4833.05	5233.22	5579.71	5723.96	5903.00
Canara HSBC	1823.42	1657.02	2059.96	2294.71	2781.06
DHFL Pramerica	305.86	735.10	920.21	1142.10	1844.46
Edelweiss Tokio	110.90	193.08	310.07	441.33	638.26
Exide life	1830.67	2027.48	2046.99	2408.58	2531.89
Future Generali	634.16	604.25	592.50	739.95	992.29
HDFC Standard	12062.90	14829.90	16312.98	19445.49	23564.41
ICICI Prudential	12428.65	15306.62	19164.39	22354.00	27068.77
IDBI Federal	826.25	1069.62	1239.67	1565.19	1783.24
India First	2143.36	2034.11	1967.40	2265.17	2309.01
Kotak Mahindra	2700.79	3038.05	3971.68	5139.55	6598.67
Max Life	7278.54	8171.62	9216.16	10780.40	12500.89
PNB Metlife	2240.59	2461.19	2827.83	3236.08	3953.51
Reliance Nippon	4283.40	4621.08	4398.12	4026.82	4069.37
Sahara	204.63	166.86	157.05	153.94	112.03
SBI Life	10738.60	12867.11	15825.36	21,015.13	25354.19
Shiram Life	594.24	734.66	1022.11	1207.94	1497.04
Star Union Dai-ich	948.75	1134.68	1307.47	1510.88	1783.01
Tata AIA	2323.70	2122.66	2478.96	3171.08	4162.95
LIC	236942.30	239667.65	266444.21	300487.36	318223.21
Private Insurance Companies	77359.36	88434.35	100499.03	111789.25	140586.23
Public Insurance Companies	236942.30	239667.65	266444.21	300487.36	318223.21
Total Industry	314301.66	328102.01	366943.23	418476.61	458809.44

Source: Annual Report IRDA, 2018

2.2 Efficacy of select life insurance companies in India

Efficacy of life insurance companies is presented through research studies to understand the performance of life insurance companies. The prominent contribution of Cummins and Zi (1998), Gardner and Grace (1993), Hao and Chou (2005), Mahlberg and Url (2010), etc. In the Indian situation significant studies include Dutta (2013), Sinha (2007, 2012), Sinha and Chatterjee (2011) and Tone and Sahoo (2005).

Figure 1: Market Share of Private and Public Sector Life Insurance Companies in India



Source: Annual Report IRDA, 2018

Table 3: Number of Establishment of Offices in India

Insurer	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Private	6391	8785	8768	8175	7712	6759	6193	6156	6179	6057	6204
LIC	2522	3030	3250	3371	3455	3526	4839	4877	4892	4897	4908
Industry	8913	11815	12018	11546	11167	10285	11032	11033	11071	10954	11112

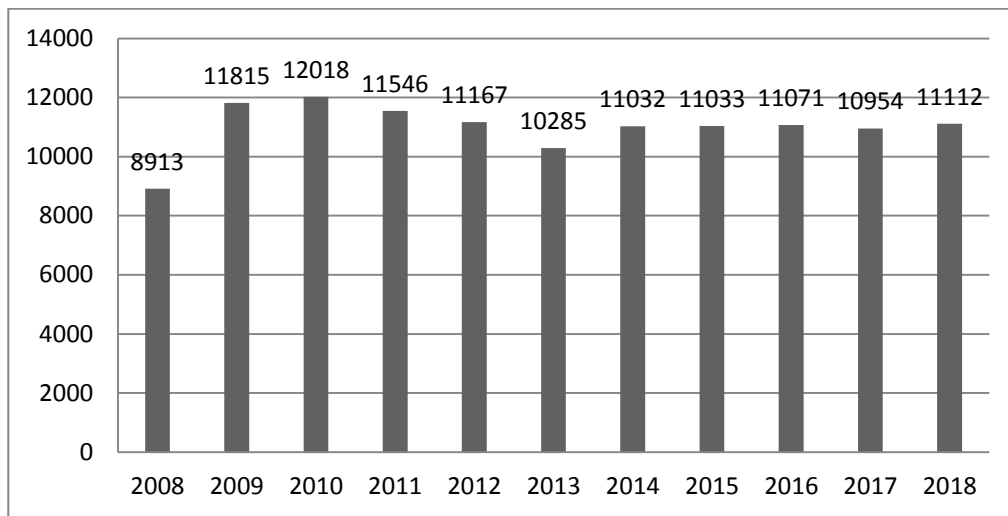
Source: Annual Report IRDA, 2018

2.3 Model of measuring performance of select life insurance companies in India

The present article benchmarks the performance of 15 life insurance companies operating in India for the time span 2015-16, 2016-17, 2017-18 using a DEA model (Figure 1). While many other new life insurance companies commenced operation in the later stage of the aforesaid period, they could not be included in the present study because of their non-existence in the earlier part of the time span. Unlike the approach followed by some other researchers, the present sample does not include non-life insurance companies because the businesses undertaken by life and non-life companies are vastly undertaken and consequently are not comparable. The present study has considered one input and one output measure to understand the efficacy. Input variables

include premium collected and output variable include sum assured. Data related to the study is collected through Insurance Regulatory and Development Authority website (Figure 2).

Figure 2: Trends in Establishment of Life Insurance Offices in India



Source: Annual Report IRDA, 2018

2.4 Data envelopment analysis (DEA) model of measurement

Data envelopment analysis (DEA) is a linear programming-based technique for measuring the relative performance of organisational units where the presence of multiple inputs and outputs makes comparisons difficult. The measurement of relative efficiency where there are multiple possibly incommensurate inputs and outputs was addressed by Farrell and developed by Farrell and Fieldhouse (1957). The study variables in Data Envelopment Analysis (DEA) consist of Decision Making Units (DMU), in the present study Decision Making Units consist of select insurance, these DMU are essential as they are responsible for converting inputs into outputs. The data for input and output related to DMU are presented in a matrix given below., where X is an (m x n) matrix and Y an (s x n) matrix

$$X = \begin{bmatrix} x_1 & x_2 & x_3 & x_n \\ x_3 & x_4 & x_5 & x_n \\ x_{m1} & x_{m2} & x_{m3} & x_{mn} \end{bmatrix} \quad 2.1$$

$$Y = \begin{bmatrix} y_1 & y_2 & y_3 & y_n \\ y_3 & y_4 & y_5 & y_6 \\ y_{s1} & y_{s2} & y_{s3} & y_{sn} \end{bmatrix} \quad 2.2$$

A common measure for relative efficiency is,

$$\text{Efficiency} = \frac{\text{Weighted sum of outputs}}{\text{Weighted sum of inputs}}$$

which introducing the usual notation can be written as

$$\text{Efficiency of Unit } j = \frac{u_1 y_{1j} + u_2 y_{2j} + \dots}{v_1 x_{1j} + v_2 x_{2j} + \dots}$$

where

u_i = the weight given to output i

y_{ij} = amount of output i from unit j

v_i = weight given to input i

x_{ij} = amount of input i from unit j

(Note efficiency is usually constrained to the range $[0,1]$).

The variables of the above problem are the weights and the solution produces the weights most favourable to unit j_0 and also produces a measure of efficiency. The algebraic model is as follows:

$$\left. \begin{array}{l} \text{Max } h_0 = \frac{\sum_r u_r y_{rj_0}}{\sum_i v_i x_{ij_0}} \\ \text{subject to} \\ \frac{\sum_r u_r y_{rj}}{\sum_i v_i x_{ij}} \leq 1 \quad \text{for each unit } j. \\ u_r, v_i \geq \varepsilon \end{array} \right\} \quad (\text{M1})$$

For the depot data, the efficiency of depot 1 is obtained by solving the model given below. The u 's and v 's are variables of the problem and are constrained to be greater than or equal to some small positive quantity in order to avoid any input or output being totally ignored in determining the efficiency. The solution to the above model gives a value h_0 , the efficiency of depot 1, and the weights leading to that efficiency. If $h_0 = 1$ then depot 1 is efficient relative to the others but if h_0 turns out to be less than 1 then some other depot(s) is more efficient than depot 1, even when the weights are chosen to maximise depot 1's efficiency. This flexibility in the choice of weights is both a weakness and a strength of this approach. It is a weakness because the judicious choice of weights by a unit possibly unrelated to the value of any input or output may

allow a unit to appear efficient but there may be concern that this is more to do with the choice of weights than any inherent efficiency.

$$\begin{array}{l}
 \text{Max } h_0 = \frac{40u_1 + 55u_2 + 30u_3}{3v_1 + 5v_2} \\
 \text{subject to} \\
 \frac{40u_1 + 55u_2 + 30u_3}{3v_1 + 5v_2} \leq 1 \quad (\text{depot 1}) \\
 \frac{45u_1 + 50u_2 + 40u_3}{2.5v_1 + 4.5v_2} \leq 1 \quad (\text{depot 2}) \\
 \dots\dots\dots \text{for remaining depots} \\
 \text{and } u_1, u_2, v_1, v_2 \geq \varepsilon
 \end{array} \quad \left. \vphantom{\begin{array}{l} \text{Max } h_0 = \frac{40u_1 + 55u_2 + 30u_3}{3v_1 + 5v_2} \\ \text{subject to} \\ \frac{40u_1 + 55u_2 + 30u_3}{3v_1 + 5v_2} \leq 1 \quad (\text{depot 1}) \\ \frac{45u_1 + 50u_2 + 40u_3}{2.5v_1 + 4.5v_2} \leq 1 \quad (\text{depot 2}) \\ \dots\dots\dots \text{for remaining depots} \\ \text{and } u_1, u_2, v_1, v_2 \geq \varepsilon \end{array}} \right\} \text{(M2)}$$

This flexibility is also a strength, however, for if a unit turns out to be inefficient even when the most favourable weights have been incorporated in its efficiency measure then this is a strong statement and in particular the argument that the weights are incorrect is not tenable. DEA thus may be appropriate where units can properly value inputs or outputs differently, or where there is a high uncertainty or disagreement over the value of some input or outputs. The DEA model M1 is a fractional linear program. To solve the model it is first necessary to convert-it into linear form so that the methods of linear programming can be applied. The linearization process is relatively straightforward. The linear version of the constraints of M1 is shown in model M3. For the objective function it is necessary to observe that in maximising a fraction or ratio it is the relative magnitude of the numerator and denominator that are of interest and not their individual values. It is thus possible to achieve the same effect by setting the denominator equal to a constant and maximising the numerator. The resultant linear program is as follows:

3.0 Results

The study results were analysed in three levels firstly premium received by the select 15 insurance companies was evaluated for three financial years that is 2015-16, 2016-17 and 2017-18. This construct was applied as input factor for DEA analysis as insurance premium growth reflects the growth of a life insurance company. Further, sum assured is a construct for output for the study, since sum assured indicates the output of

life insurance. Information with regards to input and output constructs is presented in Table 4. The results with regards to weighted factors and efficiency is presented in Table 5 and Table 6. Results with regards to correlation matrix of insurance companies premium and sum assured.

$$\left. \begin{aligned}
 &\text{Max } h_0 = \sum_r u_r y_{rj_0} \\
 &\text{subject to} \\
 &\quad \sum_i v_i x_{ij_0} = 100 \text{ (say)} \\
 &\quad \sum_r u_r y_{rj} - \sum_i v_i x_{ij} \leq 0 \quad j=1,2,\dots,n. \\
 &\quad u_r, v_i \geq \varepsilon
 \end{aligned} \right\} \text{(M3)}$$

Table 4: Decision Making Units (DMU) and DEA Input and Output

Decision Making Units	Premiums			Sum Assured			
	1	2	3	1	2	3	4
	2015-16	2016-17	2017-18	2014-15	2015-16	2016-17	2017-18
Aegon Life	501.6	450.72	531.21	73216.39	82918.25	102494.47	135437.32
Aviva	1493.15	1336.51	1344.22	94928.94	89730.16	90964.00	89209.96
Bajaj Allianz	5897.31	6183.32	7578.37	122312.55	114926.2	125378.25	129642.45
Bharti AXA	1208.33	1396.5	1684.39	26599.49	29019	32684.02	37550.73
Aditya Birla	5579.71	5723.96	5903	147028.68	147497.61	169819.01	182111.61
Canara HSBC	2059.96	2294.71	2781.06	22115.85	24247.42	29991.71	38820.69
Edelweiss Tokio	310.07	441.33	638.26	10671.13	15427.12	16876.84	22488.33
HDFC Standard	16312.98	19445.49	23564.41	300507.81	388567.35	488560.50	631473.28
ICICI Prudential	19164.39	22354	27068.77	265194.69	356905.69	575840.78	780914.94
Kotak Mahindra	3971.68	5139.55	6598.67	69830.2	80274.57	98519.03	127156.55
Max Life	9216.16	10780.4	12500.89	145985.86	183607.5	324424.53	424247.14
PNB Metlife	2827.83	3236.08	3953.51	56086.58	68304.77	86326.62	105627.39
SBI Life	15825.36	21.015.13	25354.19	227950.44	275263.78	803670.20	985910.25
Tata AIA	2478.96	3171.08	4162.95	52115.28	67618.89	104650.09	158420.45
LIC	266444.21	300487.36	318223.21	5765862.75	6383627.18	6551566.87	8434828.13

Table 5: DEA Efficiency and Weighted Factors

	DEA		Trial Weighted Factors		
Focus	Efficiency		Output	Input	Efficiency
Aegon Life	56%	1	35.09	19414.61	0%
Aviva	100%	2	99.84	18711.02	1%
Bajaj Allianz	100%	3	466.53	25150.71	2%
Bharti AXA	100%	4	102.30	6266.21	2%
Aditya Birla	100%	5	413.50	32587.05	1%
Canara HSBC	100%	6	169.89	5699.93	3%
Edelweiss Tokio	100%	7	32.83	3138.80	1%
HDFC Standard	97%	8	1415.99	87618.44	2%
ICICI Prudential	100%	9	1635.90	94753.42	2%
Kotak Mahindra	100%	10	374.18	18487.19	2%
Max Life	100%	11	778.01	51862.38	2%
PNB Metlife	70%	12	238.58	15438.69	2%
SBI Life	79%	13	802.31	109182.57	1%
Tata AIA	100%	14	233.17	18412.34	1%
LIC	100%	15	21316.79	1351477.20	2%

Table 6: DEA Efficiency and Focus Areas of Study

	Focus	2015-16	2016-17	2017-18	2014-15	2015-16	2016-17	2017-18
1	Aegon Life	0	0.0470085	0	0.0840456	0	0	0.0797721
2	Aviva	0	0	0.0666667	0.051954	0	0.1218391	0.0473563
3	Bajaj Allianz	0.0305789	0.0272731	0.0069964	0.1212184	0	0.0010881	0.0248122
4	Bharti AXA	0.1	0	0	0.034	0.0705714	0.1376429	0.0457857
5	Aditya Birla	0	0.047619	0	0.0697168	0	0.0339247	0.0345472
6	Canara HSBC	0.0676042	0.0652604	0	0.248515	0	0.0029094	0.0555623
7	Edelweiss Tokio	0	0.0625	0	0.0625	0.0625	0	0.0625
8	HDFC Standard	0.0506047	0	0.0144174	0.0005029	0.0572387	0.1102862	0.0192073
9	ICICI Prudential	0	0.1111111	0	0.0324859	0.1257062	0.1071092	0.1024011
10	Kotak Mahindra	0	0.0413075	0.0789831	0.210813	0	0.0146197	0.086063
11	Max Life	0	0.0625	0	0.0915033	0	0.0445261	0.0453431
12	PNB Metlife	0	0.0156285	0.0353341	0.0921857	0	0	0.0425821
13	SBI Life	0.0119666	0.0104262	0.0214543	0.0540855	0.0301798	0	0.0241896
14	Tata AIA	0	0	0.0416667	0.0980769	0	0	0.0307692
15	LIC	0.0491111	0.0008609	0.0157363	0.0063042	0.0696068	0.0868219	0.0146948

Table 7: Correlation Matrix of DMU and Efficiency with Regards to Premiums and Sum Assured

	Focus	DE A	Efficiency	Focus DMU Efficiency Solutions														
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
				Aegon Life	Aviva	Bajaj Allianz	Bharti AXA	Aditya Birla	Canara HSBC	Edelweiss Tokio	HDFC Standard	ICICI Prudential	Kotak Mahindra	Max Life	PNB Metlife	SBI Life	Tata AIA	LIC
1	Aegon Life	56%	1	0.56	0.38	1.00	0.23	1.00	0.32	0.62	0.24	0.46	0.41	0.62	0.57	0.45	0.46	0.51
2	Aviva	100%	2	0.38	1.00	0.93	0.31	0.55	0.41	0.74	0.55	0.57	1.00	0.82	0.57	0.65	1.00	0.45
3	Bajaj Allianz	100%	3	0.43	0.51	1.00	0.48	1.00	1.00	0.79	0.59	0.42	1.00	0.79	0.66	0.74	0.88	1.00
4	Bharti AXA	100%	4	0.22	0.75	1.00	1.00	0.40	1.00	0.51	0.93	0.74	0.46	0.45	0.48	0.67	0.80	0.00
5	Aditya Birla	100%	5	0.55	0.51	1.00	0.27	1.00	0.59	0.85	0.32	0.51	0.80	1.00	0.60	0.54	0.55	0.52
6	Canara HSBC	100%	6	0.43	0.48	1.00	0.49	1.00	1.00	0.76	0.57	0.42	0.88	0.77	0.64	0.71	0.81	1.00
7	Edelweiss Tokio	100%	7	0.55	0.45	1.00	0.31	1.00	0.40	1.00	0.29	0.69	0.64	0.89	0.57	0.56	0.52	0.69
8	HDFC Standard	97%	8	0.26	1.00	1.00	1.00	0.42	1.00	0.73	0.97	1.00	0.83	0.73	0.49	0.71	0.88	0.89
9	ICICI Prudential	100%	9	0.50	0.58	1.00	0.36	0.79	0.42	1.00	0.32	1.00	0.66	1.00	0.51	0.52	0.49	0.54
10	Kotak Mahindra	100%	10	0.50	0.62	1.00	0.27	1.00	0.47	0.87	0.44	0.45	1.00	0.83	0.70	0.73	1.00	0.67
11	Max Life	100%	11	0.55	0.51	1.00	0.27	1.00	0.59	0.85	0.32	0.51	0.80	1.00	0.60	0.54	0.55	0.52
12	PNB Metlife	70%	12	0.50	0.60	1.00	0.26	1.00	0.41	0.83	0.43	0.44	0.90	0.76	0.70	0.72	1.00	0.68
13	SBI Life	79%	13	0.42	0.63	1.00	0.46	0.86	0.57	1.00	0.56	0.56	1.00	0.80	0.64	0.79	1.00	1.00

14	Tata AIA	100 %	14	0.36	0.55	0.77	0.21	0.74	0.35	0.72	0.41	0.33	1.00	0.63	0.58	0.66	1.00	0.59
15	LIC	100 %	15	0.27	0.92	1.00	1.00	0.46	1.00	0.88	0.96	1.00	1.00	0.80	0.51	0.76	0.93	1.00

4.0 Discussions

Study results with regards to role of life insurance in bringing financial inclusions have shown that life insurance sector in Indian has played an important role for financial inclusions. Both public and private life insurance companies have contributed towards the growth of life insurance, this was indicated in the results with regards to life insurance density in the Indian economy with 33.2 (USD) in the year 2006 to 46.5 (USD). Likewise, there was also growth with regards to insurance premium of private insurance companies which have contributed Rs77359.36 in the year 2013-14, Rs88434.35 in the year 2014-15, Rs100499.03 in the year 2015-16 , Rs111789.25 in the year 2016-17 and Rs140586.23 in the year 2017-18. While public sector insurance have contributed Rs236942.30 in the year 2013-14, Rs239667.65 in the year 2014-15, Rs266444.21 in the year 2015-16 , Rs300487.36 in the year 2016-17 and Rs318223.21 in the year 2017-18. In both sectors there has been growth in life insurance sector of India. Financial inclusions were also witnessed in reach of insurance companies in India, results show that in the year 2008 there were 8913 establishments and in the year 2018 there has been 11112 establishments. Results with regards to efficiency of life insurance companies show that Aviva, Bajaj Allianz, Bharti AXA, Aditya Birla, Canara HSBC, Edelweiss Tokio, ICICI prudential, Kotak Mahindra, Max Life, Tata AIA and LIC have shown efforts to increase their sum assured and premiums to bring financial inclusions, while few select companies need more efforts with regards reach and communication with customers in both rural and urban sectors to bring awareness with regards life insurance products and services.

5.0 Conclusions and Future Studies

The study on life insurance products in financial inclusions shows that life insurance companies have growth in terms of volume of life insurance policies and premiums. However, there are few companies which require more efforts to bring awareness among urban and rural customers in India. Overall the study results indicate that life insurance companies have played an significant role in financial inclusions in

India. The present study was conducted on 15 selected companies, however future study might include all the companies operating in life insurance sectors and also include other factors associated with life insurance like operating expenses, written down value etc. can be considered to understand the impact of life insurance in financial inclusions.

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