

# An Analysis on Employment of Funds of Employees' State Insurance Corporation (ESIC) of India

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## Abstract

*ESI scheme is the first social insurance measure in India to provide socio-economic protection to the worker population of the nation. As ESIC is a unique institution and ESI scheme of India is a major multi-dimensional social insurance programme that has over the last six decades emerged with its phenomenal growth in terms of geographical reach, demographic coverage, multi-faceted services and infrastructure it becomes imperative to appraise the performance of ESIC. As the major components of income and expenditure are increased year by year, an analysis on employment of funds is revealed that there is proper employment of funds and there is a positive relationship between income and expenditure of the ESIC. From the study it is clear that ESI scheme protects the insured persons from catastrophic health expenditure and promotes health seeking behavior of the beneficiaries.*

**Keywords:** *ESIC, ESI Scheme, Contribution, Benefits, Social Security.*

## Introduction

The Employees' State Insurance Corporation (ESIC) is an autonomous corporation under Ministry of Labour and Employment, Government of India and it regulates the functioning of the Employees' State Insurance Act. ESI scheme is the first social insurance measure in India to

provide socio-economic protection to the worker population of the nation. It is an insurance policy that will pay specified amount of money to cover medical expenses and treatments of insured persons and their dependents. According to the provisions of ESI Act the employer, employee and government have to contribute based upon the employment to generate funds to run the ESIC. ESI scheme spreads the medical expenses among a group of individuals to make health care more affordable for the common good for all. It creates a sense of security while going to work that will definitely increase the productivity at workplace. As ESIC is a unique institution and ESI scheme of India is a major multi-dimensional social insurance programme that has over the last six decades emerged with its phenomenal growth in terms of geographical reach, demographic coverage, multi-faceted services and infrastructure it becomes imperative to appraise the performance of ESIC. The present paper is an attempt to examine the sources and employment of funds of the Corporation in this changing era.

## Review of Literature

**Suraja Kant Baladhikari** (2016) has revealed in her study that geographical discrimination in the implementation of ESIs catches the eye of every individual as they face difficulties in receiving the benefits and there needs to be more monitoring of how the Act is actually functioning especially

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in terms of the disbursement of the benefits, whether the medical and cash benefit is disbursed in respect of the Act. Frequent awareness programs on ESI scheme will ensure proper functioning of the Act.

**Dilshad Begum and Rajashekar** (2016), in their article have evaluated that most of the respondents are satisfied with the measures taken by the ESIC schemes. But due to non-availability of infrastructural facilities and medical equipment's for the surgeries and serious ailment patients are require better facilities. So majority of them agreed to send their patients to tie-up hospitals that these hospitals have better infrastructural facilities than ESI hospitals.

**Prakash Pillai and Asha** (2015) make an attempt to study the employees' satisfaction with regard to social security measures that exists in Patspin India Ltd, Kanjikode, Palakkad, a leading cotton yarn manufacturing industry in Kerala. The employees are not satisfied with ESI benefits and retirement benefits. According to them lack of social security hinders production and prevents the formation of a stable and efficient labour force.

**Bidyat, Dipanjan and Ratan** (2014) have observed that a large number of insured persons were not satisfied in the various services and facilities provided in ESI hospitals for medical care. Therefore ESIC should make effort to activate grievance handling mechanism to address effectively and efficiently and also to improve functioning of various boards like Regional Board, Local Board and departments like Inspectorate, Employees Insurance Court etc. to develop better co-ordination among various stakeholders and expedite settlement of Cash Benefits.

**Dash and Muraleedharan** (2011) have the opinion that not only is the utilization pattern of the ESI facilities relatively very low but the cost of treatment in the private sector is quite high. On an average the in-patients in the private facilities spent around Rs. 6,327 (including indirect expenses) and Rs.1,104 for out-patient care. This clearly shows that the scheme is failing to provide the financial protection that it should. The basic infrastructure of the existing facilities could be improved to provide higher quality of service to the beneficiaries and this includes making basic diagnostic equipment available, providing nursing personnel, laboratory services and making conditions more sanitary.

## Statement of the Problem

ESIC is the first institution for providing social security and health insurance to the employees in India. As on 31<sup>st</sup> March 2017 ESIC has the coverage of 12.37 crores beneficiaries and 3.19 crores insured persons. As there is an increase in health care cost due to speciality drugs, higher medical bills and technology advancements it is pertinent to analyze the components of income and expenditure and the trend of income and expenditure of ESIC.

## Objectives of the Study

1. To evaluate the growth of ESIC during the period of study
2. To analyze the trend of income and expenditure of ESIC
3. To find out the relationship between income and expenditure of ESIC

## Hypotheses of the Study

H<sub>01</sub>: There is no significant relationship between income and expenditure of ESIC.

H<sub>02</sub>: There is no significant trend that exists in predicting the income of ESIC.

H<sub>03</sub>: There is no significant trend that exists in predicting the expenditure of ESIC.

## Research Methodology

The data used for the study is secondary in nature. The required data were collected from the annual reports of ESIC and other relevant data are collected from journals, articles and websites. The study covers a period of nine years from 2007-08 to 2015-16. The collected data has been analyzed by using descriptive statistics and compound annual growth rate. Correlation and regression analysis are used to find out the relationship and to predict the trend of income and expenditure of ESIC.

## Scope of the Study

This study is conducted mainly to evaluate the income and expenditure of ESIC, for a period of nine years from 2007-2008 to 2015-2016. The total income consists of contribution, interest, fees, rent and other income. The main components of total expenditure are medical, cash and other benefits, administrative expenses and contribution to capital construction fund.

### Analysis of Income and Expenditure of Esic

The ESIC caters for the social welfare of the beneficiaries by providing medical and cash benefits and ESI scheme functions from the

contributions from the employers and employees. The five major components of income and expenses were analyzed for evaluating the inflow and outflow of the fund of ESIC. The following tables show the parameters of income and expenditure of ESIC.

**Table 1: Components of Income of ESIC for the Period from 2007-2008 to 2015-2016**  
(Rs. in Crores)

Year	Contribution	Interest	Fees, Fines and Forfeitures	Rent,Rates and Taxes	Other Income	Total Income
2007-08	3,262.84	628.36	10.79	68.22	19.13	3,989.34
2008-09	3,698.53	663.27	9.37	65.86	15.42	4,452.45
2009-10	3,896.00	1,110.17	10.14	61.4	7.46	5,085.18
2010-11	5,748.77	1,132.43	7.99	65.66	25.76	6,980.61
2011-12	7,070.11	1,188.03	25.43	60.64	49.35	8,393.56
2012-13	8,111.45	1,914.49	15.57	60.93	36.19	10,138.63
2013-14	9,632.54	2,173.01	28.6	56.81	18.48	11,909.44
2014-15	10,867.14	2,606.48	29.66	54.47	30.83	13,588.58
2015-16	11,455.57	2,807.6	33.76	49.39	25.9	14,372.22
<b>MEAN</b>	7082.55	1580.42	19.03	60.38	25.39	8767.78
<b>SD</b>	3142.10	817.38	10.23	6.01	12.39	3948.90
<b>CV</b>	0.44	0.52	0.54	0.10	0.49	0.45
<b>Skewness</b>	0.136	0.378	0.297	-0.577	0.662	0.200
<b>Kurtosis</b>	-1.646	-1.479	-2.013	-.183	.665	-1.608
<b>CAGR</b>	0.17	0.21	0.15	-0.04	0.04	0.17

**Source:** Compiled from Annual Reports of ESIC.

The above table depicts that contribution and interest are continuously increasing and other variables show a fluctuating trend. Contribution is much higher than compared to other components and it ranges from Rs.3,698.53 to Rs.11455.57 crores with a compound annual growth rate of 0.17 percent. It is clear from the table that ESIC could not expect a higher percentage of income in the form of rent, rates and taxes as it is shown a negative CAGR of -.04 percent. Total income also shows an increasing trend with a compound annual growth rate of 0.17 percent. The negative values of kurtosis show that the distribution of all the income is not normal except other income. Contribution, Interest, fees and other income are positively skewed with the values of .136, .378, .297 and .662 respectively.

Table 2 reveals that medical benefit, administrative expenses and contribution to construction fund are continuously increasing and medical benefit shows the highest compound annual growth rate of 0.27 percent. The Cash benefit is also increasing from 287.28 to 703.98 crores except the financial year 2013-14 and other benefits shows a fluctuating trend. The total expenses ranges from Rs.1494.77 to Rs. 8324.66 crores with a compound annual growth rate of 0.24 percent. The negative values of kurtosis show that the distribution of all the expenses except other expenses is not normal. Medical benefit, other benefit, administrative expenses and contribution to capital are positively skewed with the values of 0.311, 0.221, 0.485, and 0.136 respectively.

**Table 2: Components of Expenditure of ESIC for the Period from 2007-2008 to 2015-2016**

(Rs. in Crores)

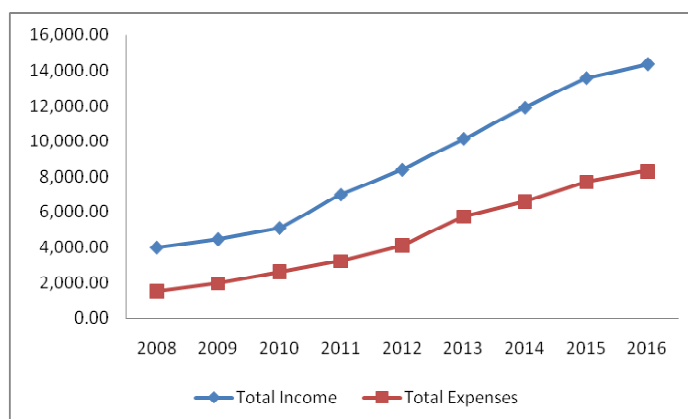
Year	Medical Benefit	Cash Benefit	Other Benefits	Administrative Expenses	Contribution to Capital Construction Fund	Total Expenses
2007-08	924.79	287.28	2.09	247.97	32.63	1,494.77
2008-09	1,123.22	380.7	2.52	412.76	36.99	1,956.20
2009-10	1,626.93	426.93	1.9	504.36	38.96	2,599.08
2010-11	2,123.67	494.11	2.45	524.21	57.49	3,201.92
2011-12	2,689.62	681.85	3.21	647.06	70.7	4,092.44
2012-13	4,058.13	761.17	2.62	826.12	81.11	5,729.15
2013-14	4,859.9	598.69	2.66	1028.02	96.33	6,585.60
2014-15	5,714.34	681.97	2.56	1210.42	108.67	7,717.96
2015-16	6,112.97	703.98	2.52	1390.63	114.56	8,324.66
<b>MEAN</b>	3248.17	557.41	2.50	754.62	70.83	4633.53
<b>SD</b>	1989.38	166.18	.37	386.16	31.42	2540.92
<b>CV</b>	0.61	0.30	154.26	0.51	0.44	0.55
<b>Skewness</b>	0.311	-0.426	0.221	0.485	0.136	0.262
<b>Kurtosis</b>	-1.670	-1.314	1.493	-0.972	-1.646	-1.603
<b>CAGR</b>	0.27	0.12	0.02	0.24	0.17	0.24

Source: Compiled from Annual Reports of ESIC.

### Relationship Between Total Income and Expenditure

Correlation analysis is used to find out the

relationship between total income and total expenditure of ESIC for the period of 2007-08 to 2015-16.



**Figure 1: Total Income and Expenses of ESIC from 2007-08 to 2015-16.**

The above figure shows the direction of total income and expenses of ESIC for the study period and the hypothesis is framed as follows:

$H_{01}$ : There is no significant relationship between income and expenditure of ESIC.

**Table 3: Relation between Total Income and Expenditure of ESIC for the Period from 2017 to 2020**

Variables	Pearson Correlation	Sig. (2-tailed)
Total Income Total Expenditure	0.997**	< 0.001

\*\* Denotes Significant at 1% Level

From the above table it is clear that the correlation coefficient between total income and expenditure is .997 and there exists strong positive relationship between the two variables. Since the p-value is less than 0.05, the null hypothesis is rejected and it can be concluded that there is a significant relationship between total income and expenditure of ESIC for the study period.

**Prediction of Income and Expenditure**

Regression analysis is a statistical device for measuring the relationship between two or more variables that are related and it is also used to predict the influence of independent variable on dependent variable. Total income of ESIC is taken as the dependent variable and years in which it occurred are taken as the independent variable.

**Table 4: Regression Analysis Results Summary of Trend Prediction of Income of ESIC**

Model Summary		Anova		Coefficients		
R	R <sup>2</sup>	F	Sig.	Unstandardized Coefficients		Standardized Coefficients
0.991 <sup>a</sup>	0.982	388.254	.000 <sup>b</sup>	B	Std. Error	Beta
				1622.224	408.139	.991

a. Dependent Variable: Total Income

b. Predictors: (Constant), Year

H<sub>02</sub>: There is no significant trend that exists in predicting the income of ESIC.

The R value of table 3 represents the simple correlation and is 0.991 which indicates a high degree of correlation between the total income and the years in which it occurred. The R<sup>2</sup> value 0.982 indicates that 98.2 percent of the total variance in the dependent variable total income can be explained by the trend in the total income. The P-value of F-test is 0.000, which is less than the significant level of 0.05. Hence the null hypothesis is rejected and the model is statistically significant for prediction. It explains the existence of trend in the total income of the corporation. "B" values under the "Unstandardized Coefficients" column are used for predicting the dependent

variable from the independent variable. Regression model that establishes the relationship is:

$$Y = \beta_0 + \beta_1 X$$

Where, Y = Dependent Variable

$\beta_0$  = Intercept

$\beta_1$  = Slope of Independent Variable

From the output tables of the regression analysis, the relationship can be established in the form of following equation:

$$\text{Total income} = 1622.224 + 1429.108 (\text{Years})$$

The total income of the next four consecutive years will be predicted by using the regression model as given in the following table.

**Table 5: Total Income of ESIC for the Period of 2017 to 2020**

Years	Total Income
2017	1622.224 + (1429.108 * 10) = 15913.3
2018	1622.224 + (1429.108 * 11) = 17342.41
2019	1622.224 + (1429.108 * 12) = 18771.52
2020	1622.224 + (1429.108 * 13) = 20200.63

Total expenses of ESIC are taken as the dependent variable and years in which it occurred are taken as the independent variable for the prediction of

total expenses from 2017 to 2020.

$H_{03}$ : There is no significant trend that exists in predicting the expenditure of ESIC.

**Table 6: Regression Analysis Results Summary of Trend Prediction of Expenditure of ESIC**

Model Summary		Anova		Coefficients		
R	R <sup>2</sup>	F	Sig.	Unstandardized Coefficients		Standardized Coefficients
.990 <sup>a</sup>	.980	340.399	.000 <sup>b</sup>	B	Std. Error	Beta
				41.439	280.122	.990
				918.419	49.779	

a. Dependent Variable: totalexpense

b. Predictors: (Constant), year

The *R* value of 0.990 in the above table indicates a high degree of correlation between total expenses and the years in which it occurred. The *R*<sup>2</sup> value 0.980 indicates that 98 percent of the total variance in the dependent variable total expenditure can be explained by the trend in the total expenditure. The P-value of F-test is 0.000, which is less than the significant level of 0.05. Hence the null

hypothesis is rejected and the model is statistically significant for prediction. It explains the existence trend in the total expenditure of the Corporation. From the above table of the regression analysis, the relationship can be established in the form of following equation:

$$\text{Total Expenditure} = 41.439 + 918.419 (\text{Years})$$

**Table 7: Total Expenditure of ESIC for the Period of 2017 to 2020**

Years	Total Expenses
2017	$41.439 + (918.419 * 10) = 9225.63$
2018	$41.439 + (918.419 * 11) = 10144.05$
2019	$41.439 + (918.419 * 12) = 11062.47$
2020	$41.439 + (918.419 * 13) = 11980.89$

The above table illustrates the expected total expenditure from 2017 to 2020 and it varies from 9,225.63 to 11,980.89 crores. As it shows an increase trend, ESIC can manage their funds according to the future needs of the beneficiaries of the ESI Scheme.

### Suggestions

Since ESI schemes are governed by ESIC, the following suggestions are given for the better performance of the Corporation. ESIC has to make a secured investment so as to maintain the interest of the insured persons. If there is provision for performance audit and continuous feedback, it will help the authority for proper utilization of funds. It is good to impart knowledge through advertisements and wall writings in regional languages for increasing the coverage of ESIC. It is suggested to simplify the formalities for claiming

the benefits and avoid the delay in payment of benefits.

### Conclusion

The employees' state insurance scheme is one of the largest social security benefits in which every contributor is a benefactor and a beneficiary. As the major components of income and expenditure are increased year by year, an analysis on employment of funds is revealed that there is proper employment of funds and there is a positive relationship between income and expenditure of the ESIC. From the study it is clear that ESI scheme protects the insured persons from catastrophic health expenditure and promotes health seeking behavior of the beneficiaries. The timely amendments in the ESI Act enable not only the employees to seek better social security benefits but also the society to improve at large. On 22

December 2016, the Ministry of Labour and Employment issued a notification increasing the wage limit for coverage under the ESI Act from Rs.15,000 to Rs. 21,000. Consequently, 50 lakh workers would now be covered under the ESI Act and bring affordable healthcare to not just employees but also their dependent family members.

## References

- SurjaKantaBaladhikari(2016). Assessment of Employees State Insurance as social security in West Bengal, *NUJS Journal of Regulatory Studies*, 1(1), 51-71.
- Dilshad Begum and H. Rajashekar (2016). An empirical Study on dependence of employees' state insurance Hospitals-with special reference to Karnataka, *EPRA International Journal of Economic and Business Review*, 4(3), 133-137.
- Prakash Pillai R. and Asha G.(2015). A Study on Efficacy of Social security measures- with special reference to Patspin India Ltd., Kanjikode, Kerala. International Conference on Science, Technology and Management, University of Delhi, 2872-2882.
- Bidyut Bikash Baishya, Dipanjan Chakraborty and Ratan Borman (2014). Health insurance as social security-A study on service delivery of Employees' State Insurance Corporation in Assam. 67<sup>th</sup> All India Commerce Conference of Indian Commerce Association, KIIT University, Bhubaneswar.
- Dash U and Muraleedharan V.R.(2011). How equitable is Employees' State Insurance Scheme in India?: A case study of Tamil Nadu, Consortium for Research on Equitable Health Systems, Indian Institute of Technology, Chennai, 1-31.
- Rashida K.N.(2015). Awareness and Use of Employees' State Insurance Services in Dharmadam Panchayat, Kerala, *Journal of Information Management*, 2 (2), 78-89.
- Harinder Singh and Amandeep Kaur (2012). Rashtriya Swasthya Bima Yojna in India- Implementation and Impact, *International Journal of Multidisciplinary Research*, 2(5), 155-173.
- Ramesh Verma, Neelam Kumar and Raj Kumar (2012). Evaluation of Utilization of health care services under Employees' State Insurance Scheme in district Rohtak, Haryana, *Indian Journal of health and wellbeing*, 3(3), 688-691.
- Ann Mary Jones, Anusha M.R. and Ambily A.S. (2016). A study on the effectiveness of Rashtriya Swasthya Bima Yojana with reference to Chirakkadavu Grama Panchayat, *International Journal of Scientific Research*, 5(4), 340-342.
- Kothari C.N.(2004). *Research Methods and Techniques*. New Delhi: New Age International Publishers.
- Potti L.R. (2017). *Quantitative Techniques*. Thiruvananthapuram: Yamuna Publications.
- Rajendra Nargundkar (2005). *Marketing Research*. New Delhi: Tata McGraw-Hill Publishing Company Limited.
- Perry R. Hinton, Charlotte Brownlow, Isabella McMurray and Bob Cozens (2004). *SPSS Explained*. London: Routledge Taylor and Francis Group.
- [www.esic.nic](http://www.esic.nic)
- [www.India.gov.in](http://www.India.gov.in)