

# OPERATIONAL PERFORMANCE OF THE INDIAN DEPOSITORY SYSTEM – A CASE STUDY OF CENTRAL DEPOSITORY SERVICES (INDIA) LIMITED

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**ABSTRACT-** Depository system essentially aims at eliminating voluminous and cumbersome paper work involved in the script-based system and offers scope for 'paperless' trading through state-of-the-art technology. The present study is an attempt to analyze the operational performance of Central Depository Services (India) Limited (CDSL) through operating income to total income, total expenses to total income, current ratio. Earnings per share and return on assets ratios. This study is purely based on secondary data and the period of the study is 2005-06 to 2017-18 i.e. thirteen consecutive financial years.

**KEYWORDS-** Depository, CDSL, Operational Performance, Dematerialization.

## INTRODUCTION

Dematerialization is the processes by which a client can get physical certificates converted into electronic balances maintained in its account with the participant in the depository system securities held in dematerialization form are fungible, i.e., they do not bear any distinguishing features. The financial market exists to facilitate sale and purchase of financial instruments and comprises of two major markets namely the capital Market and the money market. The capital market mainly deals in medium and long – term investments (maturity more than a year) while the money market deals in short- term investments (maturity up to a year).

Capital market can be divided into two segments viz., primary and secondary. The primary market is mainly used by issuers for raising fresh capital from the investors by making initial public offers or rights issues or offers for sale of equity or debt. The secondary market provides liquidity to these instruments through trading and settlement on the stock exchanges. Capital market is, thus important for raising funds for capital formation and investments and forms a very vital link for economic development of any country. The capital market provides a means for issuers to raise capital from investors. (Who have surplus money available from savings for investments). Thus savings normally flow from household sector to business or government sectors that normally invest more than they save.

A major problem however continued to plague the market. The Indian markets were literally weighed down by the need to deal with shares in the paper form. There were problems galore with handling documents-fake and stolen shares, fake signatures and signatures mismatch, duplication and mutilation of shares, and transfer problems etc. so the institutions and the stock exchanges experiences that the paper certificates are the main cause of investor disputes and arbitration cases.

The main function of a depository is to dematerialize the securities and enable their transactions in publication application form. As per The Bank for International Settlements (BIS), the depository is "a facility for holding securities which endow securities transactions to be processed by book application. Personal securities may be immobilized by the depository or securities may be dematerialized (so that they live only as electrical device records)". In easy terms depository is an organization where the securities of an investor are held in the electrical devices form. Depositories in India

There are two depositories in India

1. The National Securities Depository Limited [NSDL]
2. Central Depository for Securities Limited [CDSL]

NSDL was registered by the SEBI on June 7, 1996 as India's first depository to facilitate trading and settlement of securities in the dematerialized form. The NSDL is promoted by IDBI, UTI and NSE to provide electronic depository facilities for securities traded in the equity and debt markets in the country. NSDL has been set up to cater to the demanding needs of the Indian capital markets.

Central Depository Services (India) Limited (CDSL) was set up on 8th February, 1999. CDSL a depository managed by professionals has been promoted by the Stock Exchange, Mumbai (BSE) along with State Bank of India (SBI), Bank of Baroda (BOB) and Bank of India as original sponsors. Several leading private sector banks, viz. HDFC Bank, Standard Chartered Bank, Canara Bank, Union Bank of India, Bank of Maharashtra, Global Trust Bank (now Oriental Bank of Commerce) and Centurion Bank are also its sponsors. CDSL's objective is to provide convenient, dependable and secure alternative depository services to investors in shares and securities. Presently, it is compulsory to settle all trades done on any stock exchange in demat form only. Although investors have an alternative to hold securities and settle trades up to 500 shares in physical form, they need a demat

account as, in practice, almost all trades on stock exchanges are now being settled in demat form only. The Bombay Stock Exchange which has contributed the lion's share in the capital of CDSL.

### OBJECTIVES OF THE STUDY

Objectives of the study are

- 1) To check Operating Income to Total Income of the CDSL during the period under study.
- 2) To analyze Total Expenses to Total Income of the CDSL during the period under study.
- 3) To analyze Current Ratio of the CDSL during the period under study.
- 4) To check Earnings per Share (EPS) of the CDSL during the period under study.
- 5) To analyze Return on Assets (ROA) Ratio of the CDSL during the period under study.

### DATA COLLECTION AND PERIOD OF THE STUDY

The main source of data used for the study is secondary, derived from the published Annual Reports of CDSL. Present study covers the operational performance of the CDSL for thirteen consecutive years. The period of the study is 2005-06 to 2017-18.

### OPERATIONAL PERFORMANCE OF CDSL

#### 1. Operating Income to Total Income

This ratio shows the Operating Income to Total Income of selected depositories during the study period. This ratio helps to assess the operational efficiency of the unit compare to total income of the depositories. The higher the ratio the better will be the profitability and affects positively to operational efficiency of the organization. The formula of the ratio is as under.

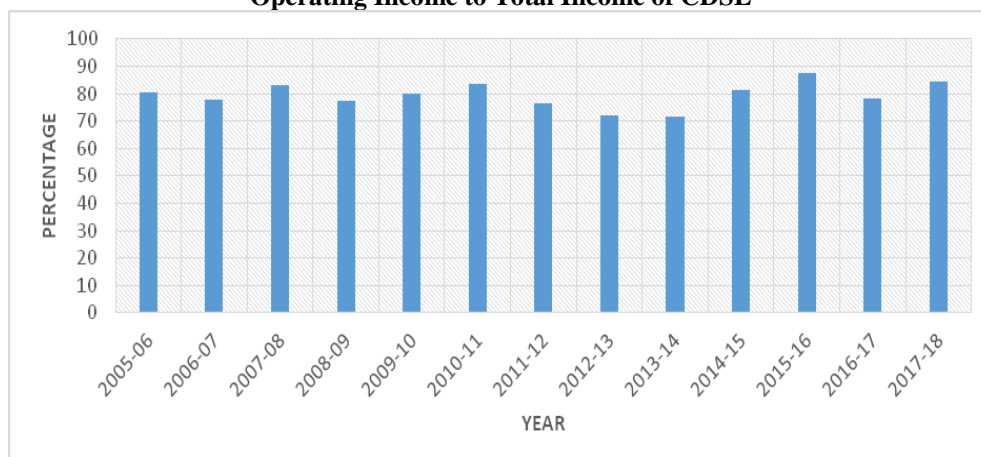
$$\text{Operating Income to Total Income} = \frac{\text{Operating Income}}{\text{Total Income}} \times 100$$

**Table – 1**  
**Operating Income to Total Income of CDSL**  
(Figures in %)

Year	CDSL
2005-06	80.32
2006-07	77.95
2007-08	82.93
2008-09	77.58
2009-10	80.1
2010-11	83.64
2011-12	76.54
2012-13	72.12
2013-14	71.54
2014-15	81.41
2015-16	87.64
2016-17	78.14
2017-18	84.65
Average	<b>79.58</b>

*Source: Calculated from the Published Annual Reports of the CDSL.*

**Graph – 1**  
**Operating Income to Total Income of CDSL**



The above table and graph shows Operating Income to Total Income ratio of CDSL during the period under review. This ratio shows the operational efficiency of the depositories. It reveals from the above table that CDSL's ratios represent fluctuating trend during the study period. CDSL has reached highest level at 87.64% in 2015-16 and lowest at 71.54% in 2013-14. The average ratio was 79.58%.

## 2. Total Expenses to Total Income

This ratio shows the Total Expenses to Total Income of selected depositories during the study period. This ratio helps to assess depositories' profitability from the view point of expenses. Higher ratio affects negatively to the profitability of depositories' income earning capacity. The formula of the ratio is as under.

$$\text{Total Expenses to Total Income} = \frac{\text{Total Expenses}}{\text{Total Income}} \times 100$$

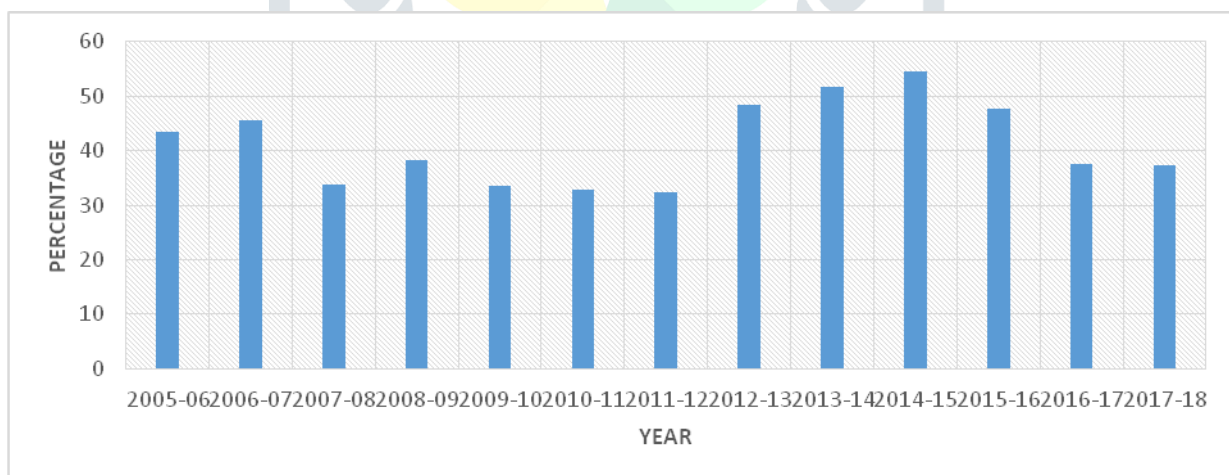
Table – 2

**Total Expenses to Total Income of CDSL**  
(Figures in %)

Year	CDSL
2005-06	43.38
2006-07	45.59
2007-08	33.9
2008-09	38.26
2009-10	33.5
2010-11	32.86
2011-12	32.46
2012-13	48.52
2013-14	51.84
2014-15	54.66
2015-16	47.82
2016-17	37.62
2017-18	37.34
Average	<b>41.37</b>

Source: Calculated from the Published Annual Reports of the CDSL.

**Graph – 2**  
**Total Expenses to Total Income of CDSL**



The above table and graph shows Total Expenses to Total Income ratio of CDSL during the period under review. This ratio shows expenses accrued by CDSL during study period. Total expenses include administration, and other expenses of the organization. It reveals from the above table that both CDSL's ratios represent fluctuating trend during the study period. CDSL has reached highest level at 54.66% in 2014-15 and lowest at 32.46% in 2011-12. The average ratio was 41.37%.

## 3. Current Ratio

This ratio shows Current Assets to Current Liabilities of selected depositories during the study period. This ratio helps to measure a company's ability to pay short-term and long-term obligations. To gauge this ability, the current ratio considers the current total assets of a company (both liquid and illiquid) relative to that company's current total liabilities. The formula of the ratio is as under.

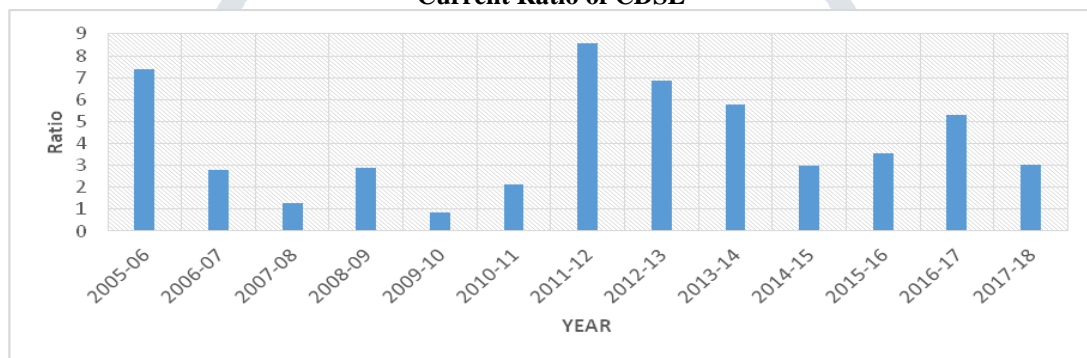
$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

**Table – 3**  
**Current Ratio of CDSL**

Year	CDSL
2005-06	7.39
2006-07	2.79
2007-08	1.27
2008-09	2.9
2009-10	0.84
2010-11	2.13
2011-12	8.55
2012-13	6.88
2013-14	5.79
2014-15	2.99
2015-16	3.54
2016-17	5.32
2017-18	3.04
Average	<b>4.11</b>

*Source: Calculated from the Published Annual Reports of the CDSL.*

**Graph – 3**  
**Current Ratio of CDSL**



The above table and graph shows Current Ratio of CDSL during the period under review. It reveals from the above table that CDSL's ratios represent fluctuating trend during the study period. CDSL has reached highest level at 8.55 times in 2011-12 and lowest at 0.84 times in 2009-10. The average ratio was 4.11 times.

#### 4. Earnings per Share (EPS)

This ratio shows Net Income Available to Shareholders to No. of Shares Outstanding of selected depositories during the study period. It measures the amount of net income earned per share of stock outstanding. In other words, this is the amount of money each share of stock would receive if all of the profits were distributed to the outstanding shares at the end of the year. The formula of the ratio is as under.

$$\text{Earnings per Share} = \frac{\text{Net Profit After Taxes}}{\text{No. of Shares Outstanding}}$$

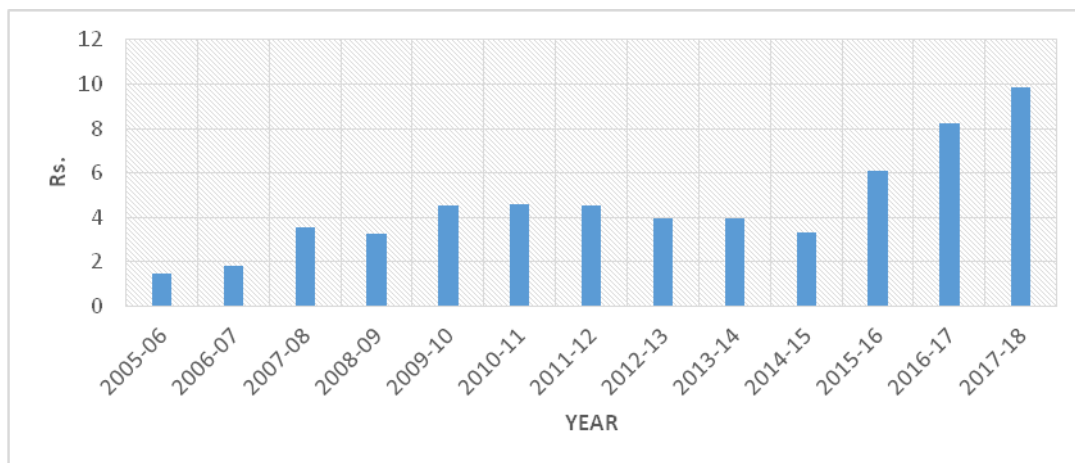
**Table – 4**  
**Earnings per Share (EPS) of CDSL**

(in Rs.)

Year	CDSL
2005-06	1.45
2006-07	1.8
2007-08	3.52
2008-09	3.26
2009-10	4.55
2010-11	4.6
2011-12	4.54
2012-13	3.93
2013-14	3.96
2014-15	3.32
2015-16	6.07
2016-17	8.21
2017-18	9.87
Average	<b>4.54</b>

*Source: Calculated from the Published Annual Reports of the CDSL.*

**Graph – 4**  
**Earnings per Share (EPS) of CDSL**



The above table and graph shows Earnings per Share (EPS) of CDSL during the period under review. It reveals from the above table that CDSL’s EPS represent fluctuating trend during the study period. CDSL has reached highest level at Rs. 9.87 in 2017-18 and lowest at Rs.1.45 in 2005-06. The average ratio was Rs.4.54.

**5. Return on Assets (ROA)**

This shows Net Income to Total Assets of selected depositories during the study period. It measures how efficiently a company can manage its assets to produce profits during a period. The formula is as under.

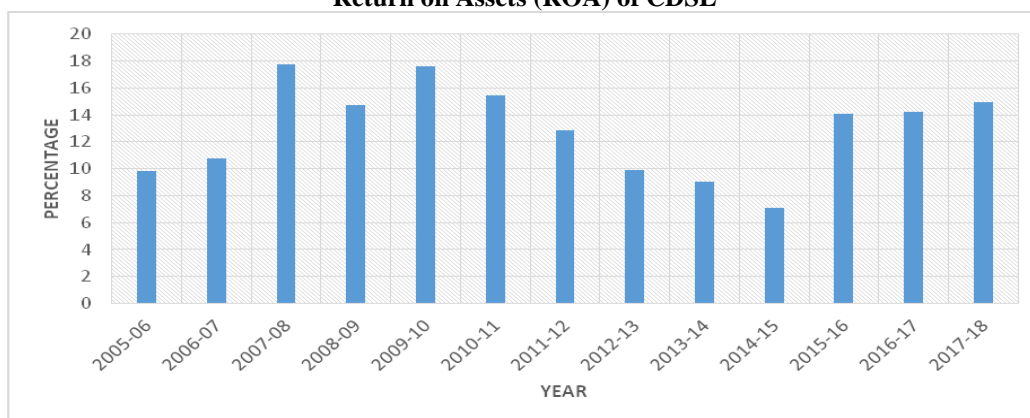
$$Return\ on\ Assets\ (ROA) = \frac{Net\ Income}{Total\ Assets} \times 100$$

**Table – 5**  
**Return on Assets (ROA) of CDSL**  
(Figures in %)

Year	CDSL
2005-06	9.82
2006-07	10.8
2007-08	17.75
2008-09	14.7
2009-10	17.65
2010-11	15.49
2011-12	12.87
2012-13	9.89
2013-14	9.04
2014-15	7.07
2015-16	14.05
2016-17	14.20
2017-18	14.95
Average	<b>12.94</b>

*Source: Calculated from the Published Annual Reports of the CDSL.*

**Graph – 5**  
**Return on Assets (ROA) of CDSL**



The above table and graph shows Return on Assets of CDSL during the period under review. It reveals from the above table that CDSL's ROA represent fluctuating trend during the study period. CDSL's return has been decreasing continuously from 2010-11 to 2014-15. CDSL has reached highest level at 17.75% in 2007-08 and lowest at 7.07% in 2014-15. The average ROA was 12.94%.

### CONCLUSION

There is a sizable increase in terms of annual average for Operating income to Total Income, Total Expenses to Total Income, Current Ratio, Earnings per Share (EPS) and Return on Assets (ROA) Ratios of CDSL during the period under study. The operational performance of CDSL is found good during the period under study.

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