

PERFORMANCE EVALUATION OF DEPOSITORY INSTITUTIONS IN INDIA

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ABSTRACT

'Depository' is an institution which holds the securities such as shares, government bonds, mutual funds etc on behalf of shareholders in a dematerialized form through depository participants (DPs). A Depository Participant acts as an intermediary or an agent between the customers and the depositories. The depository participants play a very significant role in the smooth functioning of the Indian capital market. One of the main objectives of the depository is to reduce the paperwork by converting the securities in electronic form and it transfers the shares from one account to another whenever there is any transaction of shares takes place. In India there are two depository institutions, namely, NSDL (National Security Depository limited) and CDSL (Central Depository Services Limited). The current research paper is focused on a comparative study of the two depositories i.e. NSDL and CDSL in terms of performance, total income, total asset, growth, demand custody (value) for a period of 5 years starting from 2011-12 to 2015-16. The data used for analysis are collected from the annual reports of the depositories. The ratios have been used to compare the performance of the Depositories. The paper also discusses the volume and value of dematerialization of securities, growth of centers/ beneficiary accounts.

KEYWORDS: NSDL, CDSL, DP, Depository, AGR

INTRODUCTION

A competent financial system is the key to the economic development of a nation. The financial system supplies essential financial inputs for the production of goods and services which in turn helps to advance the well being and uplift the living standards of the people of the country. The financial system is a wide term inclusive of financial markets and financial institutions which facilities mobilization of savings in the form of money and monetary assets. It allows the free flow of funds for productive activities that promotes investments. Therefore the financial system serves as an intermediary between the savers and the investors, thereby leading to rapid economic development.

A speedy progress of the Indian capital market has been acknowledged over the years which led to the existence of 23 stock exchanges in India. Basically, the Indian capital market can be classified into two segments, i.e. primary market and the secondary market. The primary market deals with the securities which are issued to the public for the first time where as the secondary market is one which provides liquidity to the instruments through trading and stock exchange. The reform in the capital market is focused on market regulation, development of derivative market, development of proper debt securities trading market, technological investment in exchanges and investor protection. Security exchange board of India, Reserve bank of India, department of company affairs and ministry of finance are the regulatory bodies of Indian

capital market which ensures the smooth functioning of the system.

Post liberalization, technology has played a key role in revamping the structure of the Indian Capital market. The boost in the competition among stock exchanges led to increase in the volume of activity. But the supporting infrastructure proved to be inefficient in handling the mounting volume of paper that flooded the market and blocked the existing system, leading to a long settlement period, high risk exposure and high level of failed trade, theft, forgery, mutilation and bad services. This led to the emergence of a new system called “the Depository System“.

The Depository system was initiated in July 1992, by Stock Holding Corporation of India Ltd (SHCIL) when it prepared a concept paper on “National Clearance and Depository System” in collaboration with Price Water House under a program sponsored by the US Agency for international development. This led to the concept of Dematerialization or scrip less trading because the shares are held in electronic form. Dematerialization is a method in which the certificates of an investor which is in physical form are converted into the equivalent number of securities in electronic form and credited to the investor’s account with his Depository Participant. The first depository in the world was set up in Germany in 1947. In India, National Securities Depository Limited (NSDL) was the first depository which commenced its operation from 8th November, 1996. The primary function of the depository is to dematerialize the securities of the investors and facilitate their transaction in public application form.

Services Provided by the Depositories

- Dematerialization
- Rematerialisation
- Settlement of off market trade
- Transfer of securities
- Electronic credit in public offerings of companies.
- Maintenance of holding in electronic form.

National Securities Depository Limited (NSDL)

The passing of the Depository Act in 1996 paved the way for establishment of NSDL. NSDL is India’s first and the largest depository which was set up in 8th November, 1996. Institutions like IDBI, UTI and NSE which are responsible for the economic development of the Nation, promoted NSDL and now it has become a recognized infrastructure of Indian capital market where most of the securities are traded in dematerialized form. The shareholders of NSDL are prominent banks like State Bank of India, HDFC Bank, Axis bank, Canara bank, Dena bank, Citibank, and HSBC, etc. NSDL group is composed of NSDL, NSDL Database Management Limited (NDML), NSDL e-Governance Infrastructure Limited (NSDL-e-Gov).

With the help of modern and flexible technology, NSDL ropes its investors and brokers by ensuring safety and settlement solutions. It plays a vital role in developing products and services in the financial service industry. NSDL offers services to the investors and other participants like clearing members, stock exchanges, banks and issuers of securities. Value Added Services like pledge, hypothecation of securities, automatic delivery of securities to clearing corporations,

distribution of cash and non cash corporate benefits (Bonus, Rights, **IPOs**), stock lending, demand of NSC/KVP, demat of warehouse receipts and internet based services like SPEED-e and IDeAS. In November 30, 2002 NSDL launched a service named STEADY (Securities Trading Information Easy Access and Delivery) that helped the brokers to deliver contract notes to the custodian electronically.

Central Depository Services (India) Limited (CDSL)

CDSL is India's second largest central securities depository whose headquarter is situated in Mumbai. It started its operation on July 15, 1999 after getting a certificate of commencement from SEBI. All top stock exchanges like NSE, BSE Ltd, Metropolitan Stock exchange of India have been recognized along with CDSL. It was formed with the purpose of providing convenient and safe depository services at reasonable cost to all the participants. CDSL was promoted by BSE Ltd in association with Bank of Baroda, State Bank of India, Union Bank of India, Standard Chartered Bank. CDSL Venture Ltd, CDSL Insurance Depository Limited (CDSL IR), CDSL Commodity Repository limited (CCRL) is the subsidiary bodies operating under CDSL. Securities which are available for dematerialization are equity shares, preference share, mutual funds unit, debt instrument, government securities, certificate of deposit and commercial paper. The role of CDSL in the Depository system is to maintain an individual' investor's beneficial holding in electronic form. It has a vast network spread across the country. CDSL has developed a unique internet facility, namely EASI and EASIEST for easy operations of the Depositories.

Analysis of NSDL and CDSL on the basis of Growth

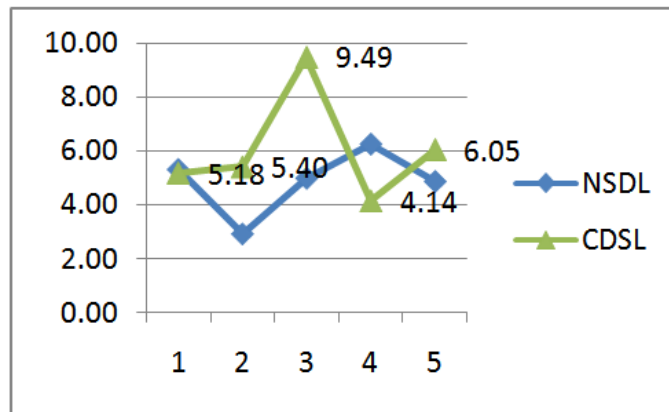
The growth of NSDL and CDSL has been analyzed on the basis of different parameters such as beneficiary account, depository participant, depository service center, number of demand companies, holding of securities in terms of value.

Growth of Beneficiary Account of NSDL and CDSL

A beneficiary account holder is the person whose name is registered with the Depository. In spite of the securities being registered with the Depository, the rights, benefits are confined to the beneficiary owner.

Table & Chart 1: Growth of Beneficiary Accounts of NSDL and CDSL from 2012-16

Year	NSDL(In Lakh)	AGR	CDSL (In Lakh)	AGR
2011-12	120.48	...	79.17	....
2012-13	126.88	5.31	83.27	5.18
2013-14	130.57	2.91	87.77	5.40
2014-15	137.08	4.99	96.1	9.49
2015-16	145.66	6.26	100.08	4.14
Average Annual Growth Rate		4.87		6.05



Interpretation

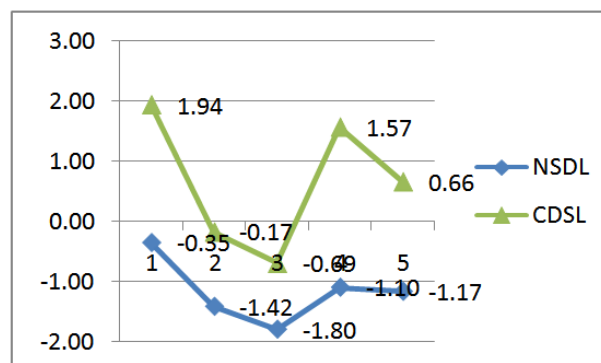
Table and Chart No 1 shows the beneficiary account growth of NSDL and CDSL from 2012 to 2016. The beneficiary account of NSDL shows a continuous growth from 120.48 lakh to 145.66 lakh. The percentage growth was highest in 2016 at 6.26 and low at 2.91 in 2014. The average annual growth rate was 4.87 per cent. The beneficiary account of CDSL has also increased continuously from 79.17 lakh to 100.08 lakh. The percentage growth was highest in 2015 at 9.49 and lowest in 2016 as 4.14. The average annual growth was 6.05 per cent. The annual growth rate of CDSL is higher than that of NSDL. The reason for the growth of beneficiary accounts could be the introduction of Demat System, leading to a tremendous growth in the number of clients during the entire period of study as shown in the above table and chart.

Growth of Depository Participant of NSDL and CDSL

Depository Participants are the agents through which the depositories offer service to the investors.

Table and Chart 2: Growth of Depository Participants of NSDL and CDSL

Year	NSDL(No of DP's)	AGR	CDSL (No of DP's)	AGR
2011-12	283	....	568	.....
2012-13	282	-0.35	579	1.94
2013-14	278	-1.42	578	-0.17
2014-15	273	-1.80	574	-0.69
2015-16	270	-1.10	583	1.57
Average Annual Growth Rate		-1.17		0.66



Interpretation

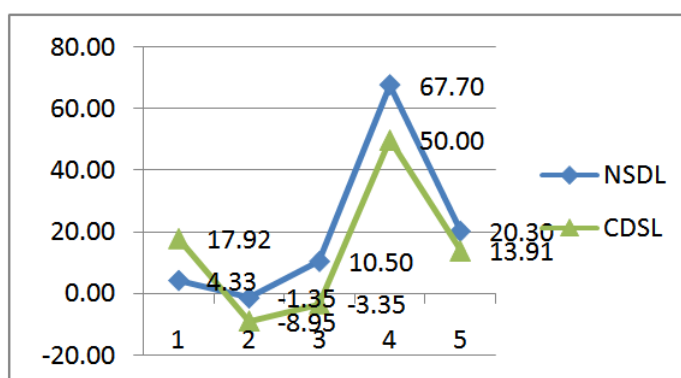
Table and Chart No: 2 show the growth of Depository participants of NSDL and CDSL from 2012 to 2016. The DP of NSDL has decreased from 283 in 2012 to 270 in 2016. The average annual growth of NSDL was (-1.17) per cent. DP of CDSL has shown fluctuating growth, but has increased from 568 to 583 in 2016. The average annual growth of CDSL was 0.66 percent, which is higher than NSDL. It may be inferred from the above data that both the NSDL and CDSL are trying to increase the number of DPs which in turn is enhancing their business. The same analysis has been graphically presented in the above chart.

Growth of Depository Service Centers of NSDL and CDSL

The depository Service Centre is the DP network spread across the country for the service of the investors.

Table and Chart 3: Depository Service Centre Growth of NSDL and CDSL

Year	NSDL	AGR	CDSL	AGR
2011-12	14033	....	10600	...
2012-13	14641	4.33	12500	17.92
2013-14	14444	-1.35	11381	-8.95
2014-15	15960	10.50	11000	-3.35
2015-16	26765	67.70	16500	50.00
Average Annual Growth Rate		20.30		13.91



Interpretation

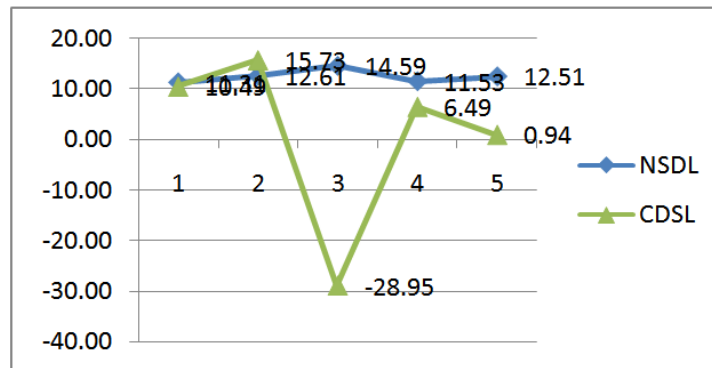
The table and chart no 3 depicts a rise in the DP service center of NSDL and CDSL from 2012-16. DP service center of NSDL has grown at a fluctuating rate from 14033 to 23765 in 2016. The percentage growth was highest in 2016 at 67.7 and lowest in 2014 at (-1035). The average growth of NSDL was 20.03 per cent. DP service center of CDSL has grown from 10600 to 16500. There has been decreasing at the DP service center in 2014-15. The percentage of growth of CDSL was highest in 2016 as 50 and lowest in 2014 as (-8.95). The average annual growth rate of CDSL was 13.90 percent, which is lesser than NSDL. It may be inferred from the above data that the number of beneficiary account holders is increasing because of which DPs are opening new branches all over the nation which will lead to increased business. The same analysis has been graphically presented in the above chart.

Growth of Demat Companies in NSDL and CDSL

Demat companies are the companies which are registered with NSDL and CDSL in dematerialized form.

Table and Chart 4: Growth of Demat Companies in NSDL and CDSL

Year	NSDL	AGR	CDSL	AGR
2011-12	9741	....	9983	....
2012-13	10843	11.31	11030	10.49
2013-14	12210	12.61	12765	15.73
2014-15	13992	14.59	9069	-28.95
2015-16	15605	11.53	9658	6.49
Average Annual Growth Rate		12.51		0.94



Interpretation

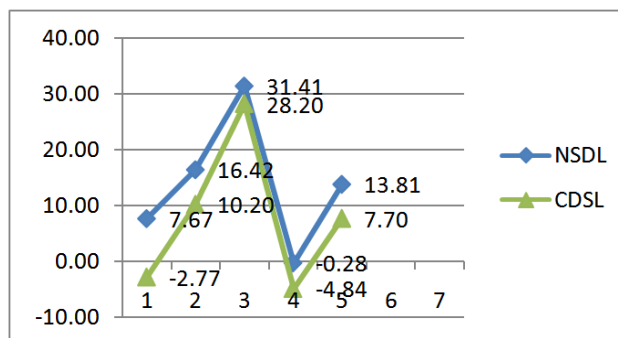
The table and chart no 4 is showing the Demat companies in NSDL have continuously increased from 9741 to 15605 from 2012 to 2016 which means that NSDL is continuously adding companies to meet their increased business. The percentage growth was highest in 2014 with 14.9 and lowest in 2013 with 11.31. The average annual growth rate was marked 12.51 per cent. In case of CDSL it has been seen a decrease from 9983 to 9658 from 2012 to 2016. The percentage growth was highest in 2014 at 15.73 and lowest in 2015 as (-28.95). The average annual growth rate of CDSL was 0.94 per cent. It can be noted from the above table that number of demat companies are increasing due to the current regulations framed by SEBI as well as positive stock market sentiments and digitization of new security classes. The same analysis has been graphically presented in the above chart.

Demat Custody (Value) of NSDL and CDSL

Demat custody of security is the total value of dematerialized securities which is registered with NSDL and CDSL.

Table and Chart 5: Demat Custody (value) in NSDL and CDSL

Year	NSDL (In Lakh)	AGR	CDSL (In Lakh)	AGR
2011-12	713230000	.....	101503100	.....
2012-13	767902700	7.67	98692400	-2.77
2013-14	893987600	16.42	108760300	10.20
2014-15	1174831500	31.41	139426400	28.20
2015-16	1171570000	-0.28	132679700	-4.84
Average Annual Growth Rate		13.81		7.70



Interpretation

The table and chart no 5 is showing the value of dematerialized securities in NSDL and CDSL from March 2012-16. The value of dematerialized securities has grown from Rs. 713230000 Lakh to Rs. 1171570000 Lakh. The percentage growth was highest in 2015 with 31.41 and lowest in 2016 with a negative growth of (-0.28). In case of CDSL there has been a fluctuating growth from 105103300 lakh to 132679700 lakh. The percentage growth was highest in 2015 as 28.2 and low as (-2.77). The average annual growth of NSDL and CDSL was 13.81 per cent and 7.7 per cent. Hence, it can be understood that the higher the value of demat custody; more is the growth of the depository. This facilitated the increase in the number of depository participants, number of beneficiary accounts and the value of demat custody of depositories. The same analysis has been graphically presented in the above chart.

Analysis of NSDL and CDSL on the Basis of Performance

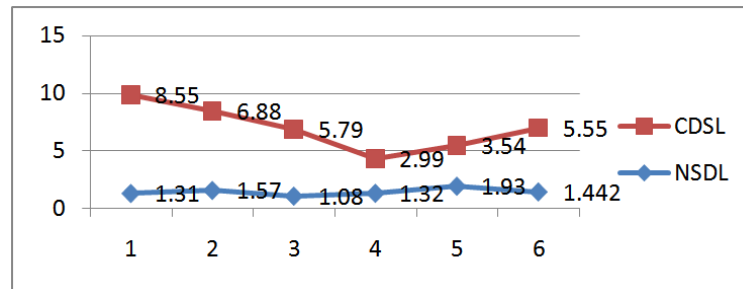
NSDL and CDSL have been analyzed on the basis of performance with the help of various ratios. The ratios are current ratio, debt-equity ratio, debt-asset ratio, return on investment, and return on asset.

Current Ratio

Current ratio is a ratio which is used by the investors and analysts to know the liquidity position of a company and its capability to pay short term liabilities with its short term assets. To judge this ability, current ratio compares current total asset of the company with that of its total current liability.

Table and Chart 6: Current Ratio of NSDL and CDSL

Year	NSDL	CDSL
2011-12	1.31	8.55
2012-13	1.57	6.88
2013-14	1.08	5.79
2014-15	1.32	2.99
2015-16	1.93	3.54
Average	1.44	5.55



Interpretation

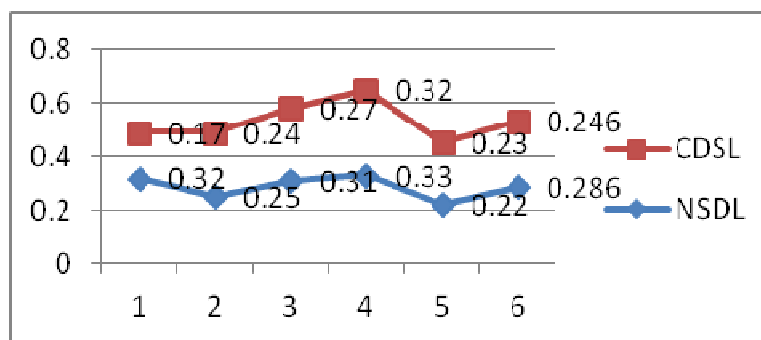
The current ratios of the depository institutions are presented in table and chart no 6. As the higher current ratio explains the stronger position of solvency, than CDSL can be considered the better as compared to NSDL because its current ratio is more than that of NSDL. It can be seen that the current ratio of CDSL is decreasing year by year. In the year 2011-12, the current ratio of CDSL was 8.55 which was highest and 3.54 was recorded lowest in the year 2015-16. In case of NSDL there has been a significant year wise increment of current ratio except the year 2013-14. In the year 2015-16 it was the year 1.93 which was highest and 1.08 was lower in the year 2013-14. The average current ratio for NSDL is 1.442 and CDSL is 5.55. It can be inferred from the table that the current ratio of the NSDL is very much satisfied and the current ratio of CDSL is more than the industry norm. Hence, CDSL may use the excessive current assets for investment in the long term investments to increase the revenue. The same analysis has been graphically presented in the above chart.

Debt-Equity Ratio

A debt-Equity ratio is a long term solvency ratio, which compares company's total debt to total equity. It shows the soundness of the long term financial policy of the company. It depicts the relationship between how much debt a company is using to finance its assets relative to the amount of value represented in shareholders' equity. A low debt equity ratio means the business is more financially sound. Companies who have a high debt equity ratio are considered more risky to both creditors and investors.

Table and Chart 7: Debt- Equity Ratio of NSDL and CDSL

Year	NSDL	CDSL
2011-12	0.32	0.17
2012-13	0.25	0.24
2013-14	0.31	0.27
2014-15	0.33	0.32
2015-16	0.22	0.23
Average	0.286	0.246



Analysis

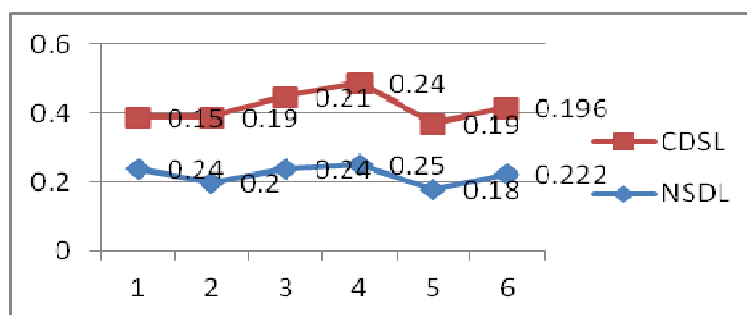
The average debt-equity ratio of the depository institutions are presented in table and chart no 7. NSDL has recorded highest debt-equity ratio at 0.33 in the year 2014-15 and lowest in 2015-16 i.e. 0.22. In case of CDSL, 2014 was marked as highest with a debt equity ratio as 0.32 and lowest in the year 0.23. The average debt- equity ratio of NSDL and CDSL are 0.51 and 0.25. It may be inferred that both the institutions are not using more debt, though there is an opportunity to rise. Hence, both the institutions may take tax advantage while taking advantage of leverage. The same analysis has been graphically presented in the above chart.

Debt-Asset Ratio

A debt Asset ratio is a kind of leverage ratio, which measures what amount of total assets are financed from the creditors rather than the investors. It reveals the proportion of the company's assets is funded from borrowings as compared to the proportion of resources which are funded by the investors. Analysts use Debt- asset ratio to measure the overall risk of the company. Companies whose debt-asset ratio is more than 0.5 is considered to be highly leveraged, which means the assets are acquired mostly from either short term or long term borrowings. A lower debt-asset ratio is considered as symbol of sound financial stability of the company.

Table and Chart 8: Debt - Asset Ratio of NSDL and CDSL

Year	NSDL	CDSL
2011-12	0.24	0.15
2012-13	0.20	0.19
2013-14	0.24	0.21
2014-15	0.25	0.24
2015-16	0.18	0.19
Average	0.22	0.20



Analysis

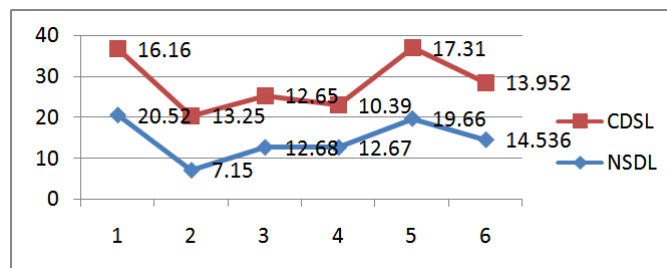
The average debt-equity ratio of the depository institutions are presented in table and chart no 8. We can see that NSDL has seen consecutive growth in the Debt-Asset ratio in 2013-15. The ratio was 0.25 which was highest in 2015 and 0.18 was the lowest in 2016. In case of CDSL we can see constant growth from 2012-15 but 2016 the ratio dropped to 0.19. The average debt-asset ratio of NSDL and CDSL was 0.23 and 0.20. CDSL is showing a better sign of financial stability as compared to NSDL. The same analysis has been graphically presented in the above chart.

Return on Investment (ROI)

Return on investment is a profitability ratio, which calculates the profits of depositories as a percentage of original cost. It measures gains or losses generated on an investment relative to the amount of money invested. This ratio helps to review depositories' profitability from the view point of shareholders funds. Higher the ratio better is the income earning capacity of the depository. Shareholders fund includes share capital and reserve and surplus during the financial year.

Table and Chart 9: Return on Investment of NSDL And CDSL

Year	NSDL	CDSL
2011-12	20.52	16.16
2012-13	7.15	13.25
2013-14	12.68	12.65
2014-15	12.67	10.39
2015-16	19.66	17.31
Average	14.53	13.95



Analysis

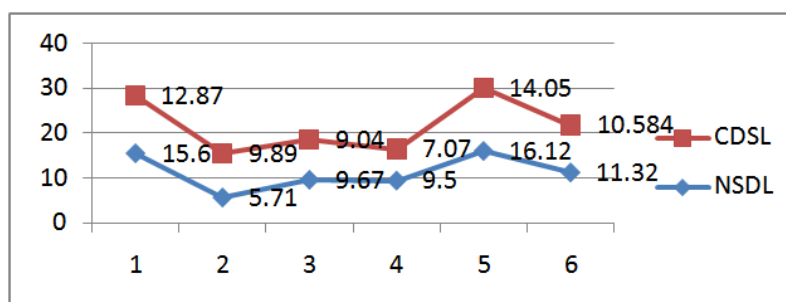
The table and chart no 9 shows a return on Investment as a percentage of NSDL and CDSL from 2012-16. The profit which is taken for the study is post tax. The ratio shows the returns earned by the depositories on their investment. It is seen that return on Investment of both NSDL and CDSL is not constant. NSDL has achieved highest ROI in 2011-12 at 20.52 per cent and lowest in the year 2012-13 at 7.15 per cent. The average percentage was 14.536. The Profitability of CDSL has continuously decreased, which affects the company's competence level negatively. In 2015-16 the companies ROI raised to 17.31 per cent as highest which means CDSL is improving its profitability. The lowest as marked in 2014-15 as 10.39 per cent. The average was 13.952 per cent. Thus NSDL is in a better position than CDSL. Hence, it can be inferred that NSDL is able to earn more because of its volume of operations. The same analysis has been graphically presented in the above chart.

Return on Asset (ROA)

Return on asset is a profitability ratio, which is measured in terms of the relationship between net profit and assets. The ROA may also be called profit to asset ratio. The ROA measures the profitability of the total funds/ Investment of a firm. It helps us to know how efficiently a company manages its assets to generate return during a particular period. A positive return on assets is favored by the investors as it shows that the company is managing its assets to produce a great amount of Net Income.

Table and Chart 10: Return on Asset (ROA) of NSDL and CDSL

Year	NSDL	CDSL
2011-12	15.6	12.87
2012-13	5.71	9.89
2013-14	9.67	9.04
2014-15	9.5	7.07
2015-16	16.12	14.05
Average	11.32	10.584



Analysis

The table and chart no 10 shows the return on asset as a percentage of NSDL and CDSL from 2012-16. A positive ROA ratio indicates an upward profit trend. From the table and chart no 11 it can be seen that both NSDL and CDSL show fluctuating trend in the ROA. ROA is continuously declining from 2012-15. In case of CDSL in 2016 it increased its highest to 14.05 per cent and lowest was witnessed in 2015 as 7.07 per cent. The highest ROA of NSDL was 16.12 percent in 2016 and 5.71 per cent in 2013. The average of both NSDL and CDSL was 11.32 per cent and 10.584 per cent. So NSDL was more financially stable than CDSL. It can be inferred that the amount invested in assets is relatively less so the return is more. The same analysis has been graphically presented in the above chart.

CONCLUSIONS

The Indian capital market experienced growth in the recent years with the introduction of dematerialization, which helped the capital market to gain recognition in the world. Indian Security market has grown in terms of trading volume, security volume, depository participants, intermediaries, etc. The analysis of NSDL and CDSL has shown that both the depositories have been growing in terms of performance and growth. The services like Pledge, Speed-e, STEADY reveals that depositories are uplifting their status to international standards.

NSDL has shown growth in terms total income, profit after tax, depository service center, total asset value, demat companies, demat custody in terms of value, return on investment, return on asset. We have seen a negative growth in number of depository participants of NSDL. CDSL is performing better than NSDL in terms of the current ratio, debt-equity ratio, debt-asset ratio.

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