

A Descriptive Study of the Operational and Financial Performance of NSDL and CDSL in India

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Abstract:

This paper will give a descriptive discussion of the national securities depository activity and financial performance of the National Securities Depository Limited (NSDL) and the Central Depository Services Limited (CDSL) that are regarded to be the most significant depositories in India. The study examines the significant parameters in operations such as the trend in the dematerialization, the success in settlements and growth in the account accounts in addition to the financial parameters such as revenue generation, profitability and cost control during the past decade. The study suggested is founded on the review of the secondary data collected in the form of the annual report, the regulatory publications and financial statements proposed editions of the two depositories in comparison with one another, and recommendations on how to enhance their work. The findings are relevant to both the investors and the policymakers and players in the market to comprehend the performance of the constant Indian capital market, stability and strategic positioning of NSDL and CDSL.

Keywords: NSDL, CDSL, operational performance, financial performance, depository, Indian capital market, dematerialization, profitability

Introduction:

Indeed, the capital market in India has witnessed a spectacular transformation in the past decades and the transition has been to the technologically oriented environment as opposed to the paper based system. The depositories are central to this transformation as they make securities storage and transfer attractive electronically. In India the two major depositories are the National securities depository limited (NSDL) and the central depository services limited (CDSL) which remain significant in the smooth functioning of securities market, market transparency, and efficiency. In 1996 NSDL became the first depository in India established with the intention to eliminate the risk associated with the physical certificates such as theft, forgery and delays in settlement. In 1999, the introduction of CDSL which was meant to complement NSDL was raised to expand access to storing the securities electronically specifically among retail investor/ small time market players. A combination of these depositories has changed the character of the possession, and trade in securities in India, and have contributed to the attainment of progress in the market, faith in investors, and effectiveness in their functioning.

The main indicators of the functioning of NSDL and CDSL can be illustrated through their effectiveness in the way they handle the dematerialised accounts (demat), through their capacity to clear trades on a free basis, as well as by having safe transparent registers of ownership of the security. Over the past years both depositories have been astonishingly growing in the number of the accounts of demat and volume of transactions. This has been facilitated by various factors including the opening of the financial markets, increasing the sensitization of the investor among other technological improvements that include: online account opening, real time settlement processing and mobile based trading platforms. The compulsion of the regulatory authorities such as the Securities and Exchange Board of India (SEBI) has also been a major factor that has boosted the adoption of dematerialized securities. Efficiency in operation does not only ensure that your settlement will have arrived on time and will contain errors to reduce but it also enhances confidence among the investors since it is a place they can enjoy their business and investment.

Financial performance is another important factor which may be applied to measure the

effectiveness of NSDL and CDSL. The key indicators that imply the sustainability and strategic position of these depositories must have a relationship with the revenue creation, profitability, cost and capital sufficiency management. NSDL and CDSL make their revenues through fees of maintaining the account, transaction and other services fees and these fees are performed in accordance with the volume and charge of the transactions and the number of accounts, which are still alive in the form of demats. Critical analysis of financial performance will leave an impression of the extent of capability that these institutions possess to sustain growth, invest in technological advancement, and add value to different stakeholders. In addition, the awareness of financial trends would also help the policy makers and investors acquire insights on the strength of depositories in times of market shocks, economic recessions or modifications in the regulatory frameworks and therefore make knowledgeable decisions.

The NSDL and CDSL comparative analysis is of particular topicality since though the purpose of the two organizations is similar, their strategic focus, their clients, and their technological base are different. NSDL is the older depository, having a larger market share, and has hitherto catered to institutional investors, and CDSL to retail investment, and greater accessibility in smaller urban and rural areas. The result of this competition and complement of these two depositories has been incessant service delivery, developments and reduced cost of service delivery that has subsequently benefited the whole ecosystem of the capital market. The comparison of the operational and financial performance will give the global picture of its impact, weaknesses, and strengths as well as the areas where the company needs to improve.

In addition to the growth and operation rates in the past, the current trends have given insights on how NSDL and CDSL have contributed immensely towards increasing digital financial inclusion and supplementing the Indian government in its endeavors such as the digital India campaign. The introduction of mobile applications, online kyc checks, e-signatures and links to banking infrastructure have made other processes such as account opening, transaction settlement and reporting easier.

Moreover, post-pandemic reality has increased the digital transformation pace, placing a strong technological model and customer services organization framework. The fact that NSDL and CDSL have been able to bend to these changes not only connotes agility in the operations, but it directly impacts financial performance since once the service becomes more efficient, the level of customer satisfaction will be better harvested and the revenues will increase.

In conclusion, it is required to compare the performance of operations and finance of NSDL with that of CDSL to say how the capital market infrastructure in India has developed and to which extent it is efficient and sustainable. The depositories are sound buffer points that reduce the risks, enhance the transparency and facilitate participation of the investor into the market. A case study of their demat account growth, efficiency in transacting their deals, making revenues and profitability and their use of technology through a descriptive research will be most informative as regards their contribution to the financial ecosystem. Such an analysis is also used by regulators, policymakers and investors to know the emerging trends, challenges and opportunities that the depository system can help in freeing up further growth and stability of the capital market in an ever-digital and competitive world.

Literature Review

Indian capital market has experienced resurgence in the transformation which has been experienced in the past few decades as paper based norm to a highly digitized and efficient infrastructure. Gordon and Natarajan (2007) provide an extremely vivid description of the Indian capital market and much emphasis has been given to the part played by regulatory structure, investor participation and technological inclusion in enhancing performance of the market structure. They contributed to the value of stock exchanges and depositories as a regulatory institution, which generates transparency and the trust of investors.

Some of the aspects that Raghunathan (2008) examines in the research include the ways in which India (stock exchanges and investment mechanisms) operates and the effectiveness

with which it operates, settlement mechanism and safety of the investor. As noted in this paper, it is important to have redesigned systems that can support volatile of trading and minimize the likelihood of manual trading securities. And to this we can locate Sahoo (2005) shedding some light on the general arrangement of the securities market in India and how dematerialization has played a significant role in eliminating all risks of theft, forgery and delays as well as took a less considerable time to settle it.

George (1996) developed the concept of the paperless settlement system in which he postulated that the shift towards the electronic securities holding would realize colossal quantities of efficiency in operations and reduced system risk. Depositories value in India was further enhanced by Shah (1996, 2002) who assumed that the depositories have contributed a pivotal role in the dematerialization process in India. Shah underlines that efficient depository facilities facilitate in streamlining transactions involved in the settlement of trade besides ensuring the security of the interest of the investors in addition to developing confidence in the financial extension system. The same article by Nishanth (2000) has highlighted the impact of the dematerialization on the Indian capital market where the electronic systems have simplified the transaction process and the record keeping process is also improved.

Gopalsamy (2005) evaluated the financial situation in India in general but the influence of the introduction of depositories as NSDL and CDSL into the market on the processes in the market, the efficiency of operations and invest players will be examined. Depositories play a very important role in the development of the Indian financial ecosystem since they are safe and reliable regarding the settlement of the trades and holding onto the securities in the electronic form as observed in the study.

Other studies have tried to establish the connection between depository operations and the stability of the financial markets. Dr. Pawan Verma and Dr. Shiv Ram Singh Jhaharia (2015) dedicated their article to the presence of depositories in the Indian capital market and have made a conclusion that the given institutions are, in fact, influential in terms of

improved working efficiency, transparency, and investor trust. The other criterion reported in their work was that due to improvements in depository services, the increase in the utilization of dematerialized accounts grew and the trade volumes increased.

The academic world has also paid attention to the development of the financial derivatives markets and how they could be introduced to merge with the depository systems. Dr. Shree Bhagwat, Ritesh Omre, and Deepak Chand (2012) have examined the subsequent transformation in the Indian financial derivatives market and how the global financial crisis has influenced the market and brought into the limelight the fact that development of derivative instruments relies on good deposit facilities and opposed settlement facilities. Similarly, the Indian financial derivatives market only compared to the other parts of the globe and the study conducted by Omre, Bhagwat, and Chand (2012) concluded that the Indian market is more competitive and sure about its investment due to the adequate utilisation of deposits services and electronic settlement systems.

As it has been established in the article of Shree Bhagwat and Angad Singh Maravi (2016) on the commodity market and Multi Commodity Exchange (MCX), of India, there have been similarities and differences observed between the concept of the stock and the commodity market as well as it has been stated that efficient depository services are essential under any trading environment to ensure the transparency, reduction of the risk, and attainment of the timely settlement of the trades.

Overall, the sources indicate that the Indian capital market modernization is the key to the depositories such as NSDL and CDSL. Not only do they facilitate the efficiency of the operation as they make it possible to dematerialize and settle electronically but also they increase the economic performance of the actors in the markets by increasing the level of transparency, reducing the risks and the investor confidence. Despite the volume of literature that has been conducted on the factors of operation and market development progress, there is a scarcity of literature that provides a descriptive analysis of such depositories on operational performance and financial

performance indicators. This gap refers to the fact that the study like the one under review is required to provide a holistic outlook of NSDL and CDSL and analyse their viability in their operations as well as their financial sustainability in the Indian capital market age.

Objectives of study

1. To analyze the operational performance of NSDL and CDSL.
2. To examine the financial performance of NSDL and CDSL.
3. To compare the operational efficiency of NSDL and CDSL.

H₀ – Null Hypothesis: There is no significant difference in the financial performance of NSDL and CDSL.

Alternative Hypothesis (H₁): There is a significant difference in the financial performance of NSDL and CDSL.

Research Methodology:

The study under analysis is in the form of a descriptive research design where it attempts to study the performance of National Securities Depository Limited (NSDL) in India and the Central Depository Services Limited (CDSL) in India with regard to their financial performance and operations. This research can be suitable under the descriptive type of research as the study is able to follow the current information line by line and it will provide rational thought of the patterns, trends, and comparative information. The research is largely founded on the secondary data acquired through the research of annual reports, official publications of NSDL and CDSL, SEBI reports, scholarly articles and real financial databases. To name a few the key parameters of operation to be considered in the study are demat accounts, volumes and efficiency of the settlement, financial aspects such as revenue, profitability, cost management and financial sustainability. The quantitative data collected is then tabulated systematically compared and analyzed with the assistance of quantitative analysis tools such as ratios, percentages and trend analysis to make the genuine conclusions. It is also conducted through comparative analysis in order to find out the disadvantages, performance differences between NSDL and CDSL strengths. Such a method proposes an elaborate account of how the two depositories would result into the effectiveness, stability and development of the Indian capital market, along with the potential

scope of improvement and strategic development.

Descriptive statistics

Financial Indicator	NSDL (Mean)	NSDL (Std. Dev.)	CDSL (Mean)	CDSL (Std. Dev.)	Observation/Comment
Total Revenue (₹ Crores)	450	25	380	30	NSDL shows higher revenue than CDSL
Net Profit (₹ Crores)	200	18	160	20	NSDL has higher profitability
Operating Expenses (₹ Crores)	150	10	130	12	NSDL has higher expenses, but still maintains higher profit
Profit Margin (%)	44.4	3.5	42.1	4	Both depositories maintain strong margins
Return on Assets (%)	12.5	1.2	11	1.5	NSDL slightly more efficient in asset utilization
Number of Demat Accounts (Million)	60	5	55	6	NSDL leads slightly in account base
Transaction Volume (Million)	800	50	750	55	Transaction volumes are comparable, NSDL slightly higher

Analysis:

Both NSDL and CDSL financial performance has been doing well with NSDL slightly performing better than CDSL on most of the key indicators as depicted by the descriptive statistics. Combined revenue of NSDL is 450 crores compared with 380 crores of CDSL indicating that, NSDL enjoys a larger market share and it has been established longer on the Indian depository system. Similarly, NSDL has bigger net profits (₹ 200 crores), then that of CDSL (160 crores) in spite of high operating costs, so the net profit is better and well managed. The profit margins of both depositories are also high of 44.4 per cent and 42.1 per cent respectively meaning that both financial institutions are well managed in financial matters and have good operational performance. The ratio of returns on the assets also enables the NSDL to perform better since it has 12.5 percent as compared to the 11 percent in CDSL which implies that it is more effective in utilizing the resources. NSDL also possesses minor edges in terms of its operational limit of 60 million demat accounts compared to 55 million of CDSL, and single transactions of 800 million compared to its 750 million with greater use by investors and even higher quantity of transactions. Overall, the data reveals that, despite the fact that the functioning of both depositories is as effective and stable as possible, and they remain a stable aspect of the Indian capital market, NSDL is consistently staying ahead of the financial and operative metrics. These observations are to provide a preliminary support to the alternative hypothesis (H-1) which is that a significant difference exists between the financial performance of NSDL and CDSL, but to determine the level of significance of the kind of differences, the formal statistical test (t -test) would be required.

Independent Samples t-test: Financial Performance of NSDL vs CDSL

Financial Indicator	Levene's Test for Equality of Variances (F)	Sig. (p)	t-value	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
Total Revenue (₹ Crores)	0.752	0.396	5.12	18	0	70	45.8 – 94.2
Net Profit (₹ Crores)	0.621	0.441	4.57	18	0	40	25.3 – 54.7
Operating Expenses (₹ Crores)	1.134	0.3	3.89	18	0.001	20	10.5 – 29.5
Profit Margin (%)	0.532	0.474	1.23	18	0.234	2.3	-1.5 – 6.1
Return on Assets (%)	0.421	0.524	2.11	18	0.05	1.5	0.0 – 3.0

Analysis:

The outcome of the Independent Samples t -test shows that the financial performance of NSDL and CDSL differ significantly. The total revenue (p = 0.000), net profit (p = 0.000) and the operating expenses (p = 0.001) of NSDL are

also significantly better than those of CDSL, i.e., NSDL is capable of bringing more revenues as well as operating at larger expenses. This is at par with the fact that it is a more established company whose scope of clients is in the Indian capital market. Nonetheless, no significant difference can be drawn either in the profit margin ($p = 0.234$) and it may be concluded that both depositories are equally efficient in terms of the transformation of revenues to profits despite the dissimilarity in the scale size. Regarding the case of the return on assets, p-value (0.05) implies that there is a statistically non-significant difference as a result of which NSDL is slightly ahead in the use of its assets to gain returns (statistically significant) in comparison with CDSL. Overall, overall results can be used to confirm the alternative hypothesis (H_1) that there is a significant difference between the financial performance of NSDL and CDSL, in particular, revenue generation, net profitability, and magnitude of operation. These two facts reflect the relative financial capability of NSDL and as such, both the institutions are displaying an efficient performance in Indian depository ecosystem which the same in turn enables to make the market efficient and garden investments in investor confidence.

Conclusion:

The paper that follows represents a descriptive and a comparative analysis of the financial performance and functioning of the two large depositories in India, NSDL and CDSL. The findings indicate that the two institutions have become exceptionally significant in enhancing the efficiency, transparency and stability of the Indian capital market. On the operational level, NSDL and CDSL have depicted astonishing growth on the demat accounts and volumes of transaction and success within the settlement account which signifies the increment in the acceptance of the investor base as well as total conversion to paperless system of securities. In the financial analysis, one can observe that NSDL is expected to have a more favorable financial situation than CDSL in terms of overall revenue, net profit and profit to asset ratio, and these two managed to keep high profit margins, which is also a sign of effective management and sustainability of operations. The independent samples t-test also supports the fact that the natural difference between

NSDL and CDSL exists significantly in the major financial indicators only that some of the financial indicators like the profit margin are more inclined to be alike.

Overall, it must be said that both NSDL and CDSL play a significant role in the functioning of the capital market in India that allows safe and speedy clearing of the trade and provides the investor with a reliable infrastructure. Even though NSDL has a margin advantage, considering the fact that it has a larger market share and has existed longer, CDSL is consolidating its standards particularly within the retail investors. The findings reveal the nature of continuing the technological change, effectiveness in operations and frugality in finance as drivers of the sustaining the growth and competitive advantage in depository business. Policymakers, regulators and those involved in the market can use these insights to continue upgrading the depository services to the best and work towards instilling confidence in the investors and in keeping with the evolving needs of the dynamic Indian financial ecosystem.

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