

A Study on Impact of Growth of Internet Era on Online Stock Trading in India

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Abstract—Nearly two billion people are connected to the Internet. During the last twenty years, the technology revolution had a strong and irreversible impact on the world. The Indian stock market has also witnessed these changes. From its commencement in the 19th century, the Indian capital market has come a long way and is said to be in a maturity stage, supported by developed legal system. The internet has made financial products and services available to more customers and eliminated geographical barriers. Earlier investors were just dependent on their brokers but nowadays they are buying and selling their shares with the help of internet. E-trading has saved time, energy and money as it helps to access the market anytime anywhere. The objective of this paper is to analyze the impact of internet growth on the stock market trading and scope of online trading market available in India.

Index Terms—Indian Stock Market, Internet, Online Stock Trading, Economic growth

I. INTRODUCTION

Information Technology (IT) industry has played a major role in the Indian economy during the last few years. This sector has transformed the economy and changed the basis of competition. The information network of business relationships is perhaps the central element of the production technology of the 21st-century stock investment. Technology is a stock of specie, which tosses into head-tail outcomes. Irrespective of its win-loss situation that makes current investment obsolete, proponents view technology as a giant catalyst that irrevocably lowers costs. Many firms have saved money on staff and paperwork through electronic order processing, billing and e-mail (Strauss et al. 2003). In such a way, increasing number of companies is marketing their investment products over the Internet, which provides a competitive advantage in the upwardly challenging financial industry. Thus, when online brokerage accounts were introduced, this new form of investment revolutionized the stock market trading. Earlier people cannot have free access to stock market trading other than by going through the brokerage stations, but substantially lower fees and commissions have opened up increased opportunity for every potential investor. Now, an individual can browse the Internet and go for the stock market information available on the webpage in order to have

an instant informed decision about the investment, i.e., either to buy or sell the shares of a particular firm or industry. These factors helped in the growth of stock exchange market during the near past. And thus proved IT as the main factor that has a strong effect on the growth of stock market. Some research purposed argument about benefits of impact of IT on financial section. Like Lonis (1997) suggest telecommunication and computers changes affected financial services quality and financial systems structure. Thus, in this paper it had been tried to explore literature and background research and thus examining the impact of internet growth/ IT on the stock trading in India.

II. LITERATURE REVIEW

Today due to Internet access and use of information technology in all human societies. The world is rapidly becoming an information society as there is rapid growth of internet in all aspects of human life. Now days, it is necessary that citizens must be prepared in intellectual and cultural fields of Information Technology Development, because there is a direct relationship between the nation's economic health and the level of their skills. Proper utilization and managed development of IT can have beneficial effects in economic growth of the country. Today, each individual want to take advantage of each other. Creating Information Technology systems especially in capital market is the key factor that made work easier and thus goals can be achieved easily. This is possible with the growth in online trading and assuring investors about their safety and property information.

The evolution of the Internet and other forms of information technology are changing dramatically the way the brokerage industry does business (Jud et al. 2002). In India the path towards technology induced development was given in 1984 by the congress government under the Prime Ministership of Rajiv Gandhi (Bajwa, 2003). The economic liberalization policies adopted since 1991 have helped the IT Industry to develop in a big way and after then the use started to increase rapidly. India stands 5th in the list of countries by number of internet users. The Stock markets introduced Internet trading (online-trading) in February 2002 which has brought a tremendous change in

trading.

In India The National Stock Exchange started the first form of online trading where in investors can buy and sell stocks in a day without much paper work. Earlier it used to take around 60 days to buy and sell stocks in stock markets and the investor also had to go through lots of paper work. But thanks to Internet due to which the Indian capital markets have recorded tremendous percentage of growth in exchange. Online stock trading in India has gained ground in the last two years. It's interesting to note that it was a beer making company, "WIT Beer" that for first time, way back in 1969, had introduced the idea of online stock trading. There are several leading companies involved in online stock trading in India. ICICI Direct, Sharekhan, Anand Rathi ,Geojit securities, India bulls, Religare, Kotak Securities, Motilal Oswal Securities, Reliance money, India Infoline.com Securities limited , and IDBI Paisa builder are the major players in online Indian stock trading.

III. INTERNET AND THE STOCK MARKET

There are some researchers that have been examined the relation between IT and stock market. Table-1 summarizes the prior researches in this field.

IV. OVERVIEW OF INDIAN STOCK MARKET

The stock market is witnessing intensified activities and is increasingly gaining importance. The Indian stock exchanges hold a place of prominence not only in Asia but also at the

global stage. The Bombay Stock Exchange (BSE) is one of the oldest exchanges across the world, while the National Stock Exchange (NSE) is among the best in terms of sophistication and advancement of technology. The Indian stock market scene really picked up after the opening up of the economy in the early nineties. The whole of nineties were used to experiment and fine tune an efficient and effective system. The 'badla' system was stopped to control unnecessary volatility while the derivatives segment started as late as 2000. The corporate governance rules were gradually put in place which initiated the process of bringing the listed companies at a uniform level. On the global scale, the economic environment started taking paradigm shift with the 'dot com bubble burst', 9/11, and soaring oil prices. The slowdown in the US economy and interest rate tightening made the equation more complex. However after 2000 riding on a robust growth and a maturing economy and relaxed regulations, outside investors-institutional and others got more scope to operate. This opening up of the system led to increased integration with heightened cross-border flow of capital, with India emerging as an investment 'hot spot' resulting in our stock exchanges being impacted by global cues like never before.

Exchanges are now crossing national boundaries to extend their service areas and this has led to cross-border integration. Also, exchanges have begun to offer cross-border trading to facilitate overseas investment options for investors. This not only increased the appeal of the exchange for investors but also

TABLE I
INTERNET AND THE STOCK MARKET

Researchers	Subject	Result
Hobjin and Jovabonic (2000)	The Information Technology Revolution and the Stock Market: Evidence	Their findings show the more application of IT due to more decrease of value, but IT destroyed the old firm and will enter new firm the market
Lucas et al. (2002)	IT and the new York stock exchange's strategic resources from 1982-1999	The results provide insights for firms that invest in IT to create a system of traditional and IT resources to obtain a sustainable competitive advantage
Ngassam and Gani (2003)	effect of information and communications technology on SMD in a sample comparing of emerging markets and high-income economies	Their model confirms that personal computers and internet hosts as the two ICT variables having strong positive effects on SMD. Their results also indicated strong positive effects of market capitalization and credit to the private sector as non-ICT contributors to SMD. Controlling for income and technological differences, the finding show emerging market economies have already seized an opportunity to leap frog the high-income countries that is, by going straight from underdeveloped networks to fully digitized networks, by passing the traditional analog technology. As such, this leap frogging is positively enhancing their stock markets
Hovav and D'Arcy (2005)	Capital market reaction to defective IT products: The case of computer viruses	Their results show that the market reacts negatively to the production of flawed IT in approximately 50 %of the cases. However, this negative market reaction is not statistically significant over extended periods and is limited to announcements involving certain types of defects (i.e., IT products that contain computer viruses). There was not statistically significant negative market reaction for announcements involving IT products that are susceptible to computer viruses.
Toivonen et al., 2007	The Impacts of IT on the Stock and Flow of a Firm's Intellectual Capital	Based on their examination, the main part of IT applications serves dissemination, storing and acquisition of explicit knowledge. They present two ways: the use of IT for the development of social capital in a firm, and the use of external experts—knowledge-intensive business services (KIBS)—as supporters in firms' knowledge functions linked to IT.

attracts more volume. Exchanges regularly solicit companies outside their home territory and encourage them to list on their exchange and global competition has put pressure on corporations to seek capital outside their home country. The Indian stock market is the world third largest stock market on the basis of investor base and has a collective pool of about 20 million investors. There are over 9,000 companies listed on the stock exchanges of the country. The Bombay Stock Exchange, established in 1875, is the oldest in Asia. National Stock Exchange, a more recent establishment which came into existence in 1992, is the largest and most advanced stock market in India is also the third biggest stock exchange in Asia in terms of transactions. It is among the 5 biggest stock exchanges in the world in terms of transactions volume.

V. MARKET CAPITALIZATION

TABLE II
WORLD STOCK MARKETS AND THEIR MARKET CAPITALIZATION

Worldwide Stock Markets			
Source: ETIG			
S. No	Country	Market cap (US\$ billion)	% of world
1	USA	15,517	39.5
2	Japan	4,079	10.4
3	United Kingdom	3,067	7.8
4	France	1,828	4.7
5	Germany	1,256	3.2
6	Canada	1,239	3.2
7	Hong Kong	1,001	2.6
8	Switzerland	872	2.2
9	Italy	788	2
10	Spain	688	1.8
11	Australia	687	1.8
12	Russia	592	1.5
13	South Korea	557	1.4
14	India	506	1.3
15	Taiwan	475	1.2
16	Others	6050	15.4
Total		39,202	100

Market capitalization is the measure of corporate size of a country. It shows the current stock price multiplied by the number of outstanding shares. It is commonly referred to as Market cap. It is calculated by multiplying the number of common shares with the current price of those shares. This term is often confused with capitalization, which is the total amount of funds used to finance a firm's balance sheet and is calculated as market capitalization plus debt (book or market value) plus preferred stock. While there are no strong definitions for market cap categorizations, a few terms are frequently used to group companies based on its capitalization. The Table-2, shows the market capitalization of various stock markets in the world.

Based on the above study, it can be observed that India is 15th in the world ranking of Market capitalization. This is in spite of having the third largest investor base, after Japan and USA, and having the largest number of companies listed. United States leads the list of countries with the highest market capitalization. India has the highest number of companies listed in the stock market. Out of this, about 75 % of the companies are listed with the Bombay Stock Exchange.

TABLE III
GROWTH OF INTERNET TRADING

Year	Enabled Members	Registered Clients	Internet Trading Volume (Rs. Crores)	% of Trading Volume
2015-16	498	4,750,744	14,624,067	22.56
2014-15	472	4,695,396	11,613,948	10.44
2013-14	451	4,116,039	7,652,572	10.01
2012-13	437	3,833,149	5,905,158	9.36

Source: NSE- Fact Book 2016

VI. ONLINE TRADING

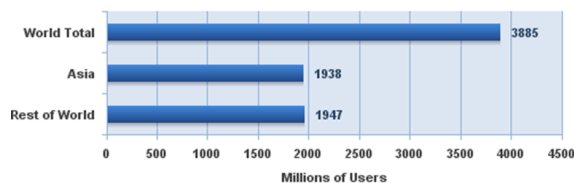
Online trading is simply buying and selling of assets through a brokerage's internet based proprietary trading platform, it is also known as E-trading or Self Directed Investing. In India the on-line trading system is used by companies to make it is a fully automated screen based bidding system that allows trading members to enter bids on behalf of their clients. All bids received by the system are numbered, time stamped, and stored in the book till the last day of the book building process and the offer price is determined after the bid closing date. While ensuring efficient price discovery, this system reduces time taken for completion of the issue process.

At the end of March 2016, a total number of 498 members were permitted to allow investor's web based access to NSE's trading system. The members of the exchange in turn had registered 4,750,744 clients for web based access as on March 31, 2016. During the year 2015-16, 22.56 % of the trading value in the Capital Market segment (14,624,067 crores) was routed and executed through the internet. The table below shows the growth of internet trading from the fiscal years 2012-13 till 2015- 16.

VII. GROWTH OF ECONOMY THROUGH INTERNET TRADING

The steps taken by the government of India through IT Policy have paid rich dividend in the form of increase in share of IT in GDP, Foreign Exchange reserves and Foreign Direct Investment from multi nationals in IT sector (Bajwa 2003). India is emerging as the fastest hub in the world as IT's Contribution to country's GDP has increased from 1.2%in 1997-98 to 5.2%in 2006-07.

Internet Users in Asia
Users in millions - June 30, 2017



Source: Internet World Stats - www.internetworldstats.com/stats3.htm
1,938,075,631 Internet users in Asia estimated in June 30, 2017
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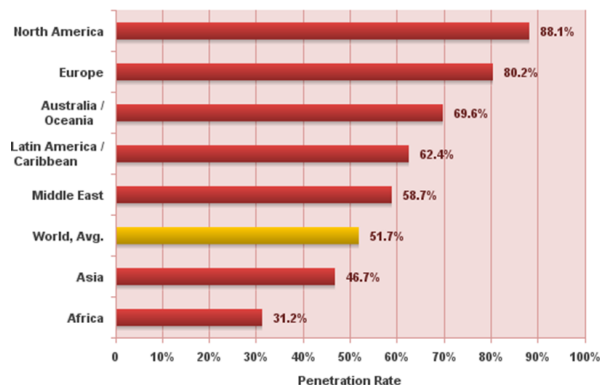
Fig. 1. Internet users in Asia

With the growth of Internet trading Companies are able to keep costs down by bringing goods and services to markets

around the world more easily. Individuals are able to compare prices, search and find information or items and communicate and learn things in an improved new way. With the introduction of E-governance Governments are able to serve its citizens much more easily. According to the report there are more than 3 million internet users worldwide. The report also stated that the Internet has wide spread impact on the growth and prosperity of the country by reducing the problem of unemployment in the country.

the fact that out of approximately 60 million internet users in India, nearly one third of this number are doing financial transactions over internet.

Internet World Penetration Rates by Geographic Regions - June 30, 2017



Source: Internet World Stats - www.internetworldstats.com/stats.htm
 Penetration Rates are based on a world population of 7,519,028,970 and 3,885,567,619 estimated Internet users in June 30, 2017.
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Fig. 2. Internet World penetration rates

VIII. GROWTH OF DIGITAL COMMERCE

Digital Commerce industry has increased from INR 26,263 Crores in the year 2010 to INR 81,525 Crores in 2014 and has shown a growth of 53% over Dec 2013. This growth has been mainly driven by the Online Travel industry which contributes 61% to the total Digital Commerce industry in India today. Next year the market is estimated to mature and cross the 1 Lac mark.



Fig. 3. Growth of digital commerce market in crores

Of the market size of INR 81,525 Crores; online travel, which includes booking rail, air, bus tickets, hotel accommodations, tour packages and travel insurance comprised a major 61% of the whole Digital Commerce pie. Financial services market has grown at a CAGR of 20% since 2010. In December 2014, this market was valued at INR 4,508 Crores. Conducting financial transactions of various types like mobile and data card recharges, utility bill payments, and stock trading amount to 6% of the overall share. Ministry of Communications and Information Technology, is of the opinion that the utility and relevance of digital commerce can be well understood by

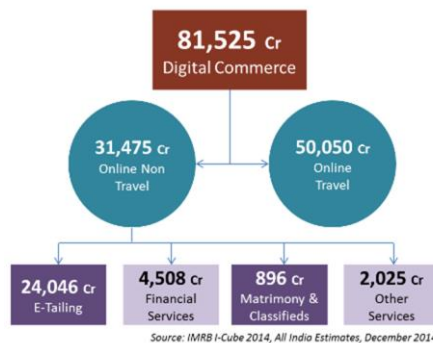


Fig. 4. Share of financial services (in Crores)

IX. CONCLUSION

This paper suggests that all transactions in stock trading institutions must be computerized and should be electronic, for the reason that these trading institutions are the key player in Indian capital market. Buying and selling must be done by Internet and all trading systems must be computerized. As Capital market plays a vital role in providing liquidity and the potential of the Indian capital market is immense. Stock market development matters for growth as access to external funds allows financially constrained firms to expand. The paperless trading environment has reduced manipulations to a large extent and financial markets have started rewarding companies. Security is also one issue which is acting as a challenge at the mindshare level of internet users. Although threats are growing and getting increasingly dangerous, but technology is available to enable secure e-commerce experience. Through digital commerce the rural user can access services and data easily and effectively. All we need to look at carefully is to create a robust and safe infrastructure for carrying out this activity of users though online or mobile gateway. Fast internet connection at lower prices is giving a boost to digital commerce regime.

REFERENCES

- [1] Bahrami A. (2008). The impact of information and communication technology development on stock market expansion (Iran's study case), MA thesis, university of Isfahan (in Persian).
- [2] Desai Vasant (2016), "Financial Markets and Financial Services", 212-228, Factbook- 2016 from www.nse-india.com
- [3] Gala Jitendra (2007), "Guide to Indian Stock Market", 44-52
- [4] HarounAlryalat, Yogesh Kumar Dwivedi, JasnaKuljis, Ray J. Paul, "International Journal of Electronic finance", vol. 1, no. 2", 151-170, 2006
- [5] Kamssu, A., Reithel, B., & Ziegelmayer, J.(2003). Information technology and financialperformance: The impact of being an Internet dependent firm on stock returns.
- [6] Strauss, J.; El-Ansary, A.; and Frost, R. 2003. E-Marketing. 3rd ed., Prentice Hall of India, New Delhi, India.
- [7] WaliaNidhi and Ravinder Kumar, "Online Stock Trading in India: An Empirical Investigation", Indian Journal of Marketing, vol. 37, no.4, April 2007.

- [8] www.bseindia.com
- [9] www.cellbharat.com/blog/4005/60-million-internet-users-in-india-witness-financialtransactions-over-internet
- [10] www.iamai.in/sites/default/files/research/pdf/IAMAI%20Digital%20Commerce%20Report%202014_90.pdf
- [11] www.nseindia.com