International Journal of Engineering Science Invention (IJESI)
ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726
www.ijesi.org ||Volume 7 Issue 1|| January 2018 || PP. 33-39

Digital Transformation and the Investors

[1]Mrs. B.A.Thayammanni ,[2]Mr. Deepak
[1]Assistant Professor Rai Technology University
[2]Director of Examination Board Rai Technology University
Corresponding Author: [1]Mrs. B.A.Thayammanni

Abstract: *This recent study analyzes the revolutionaries of digital transformation in the capital market. Digital transformation plays a vital role in an economy of the nation. In the month of Nov 2016 the Central Government bought numerous changes in the monetary policy which led drastic changes in the economy. Index of the Nifty and Sensex is the economic barometer of the capital market So far from first quarter to second quarter till the mid month of November 2016 of financial year 2016- 2017, it was observed that Nifty and Sensex have bullish trend and it took sudden deep swift from the mid month of November 2016 to January 2017. Later on it was found rebound pattern from February 2017 to November 2017. It's quite common that various factors which influences the trend such as social, political climate, govt. Policy etc. but recently it is found sudden deep bearish trend and gradually turned in to rebound in the technical analysis of the stock market Therefore, this paper analyses the factor digital transformation which affected more on the capital market.*
Keywords: *Digital Transformation, Digital money, Transparency, Volatility, Empower, Cascade & Rebound.*

Date of Submission: 06-01-20178 Date of acceptance: 17-01-2018

I. History

Since 156 years ago a scientific literature published in a seminal work about the future of the digital transformation of capital market. India has been ranked 53rd among the 60 countries in digital evolution. Companies like Uber, Airbnb and Spotify disrupted the business of transportation, hospitality and music. Agents are now eyeing on capital markets. In India, 2016 Nov 8th demonetization measures were taken by the government to vanish the black money & in the same month gradually the government has introduced the digital money in our economy.

Objectives of the study:

- To know the variation in business model before and after digital transformation.
- To acquire the knowledge of stock market and pros and cons of digital transformation
- To know the volatility of Sensex and Nifty due to digital transformation
- To know how an Indian economy is affected due to digital transformation
- To know the behavioral pattern of Sensex and Nifty during the period of Nov 2016 to Nov 2017.
- To analyze technically of stock market.

Scope and need of study

Scope of the study is very broader and sensitive. This study will reflect stock market indices and comparisons period from November 2016 - November 2017. Duration taken for study is very limited but it is very sensitive. This empirical study will provide clear picture of the bullish and bearish trends before and after digital transformation. It would may help for further descriptive studies of stock market. Moreover, it would be benefited to gain the knowledge regarding how whole Indian economy is affected by digital transformation.

Limitation:

The research period is limited only from November 2016 to November 2017.

Introduction of Digital transformation:

Digital transformation is a transformation of old manual culture in to a new digital culture. It is a contemporary issue. It is a good tool to optimize and automate the process of business. It helps to engage the customer in the firm. It creates better experience. It empowers the employees to do their job efficiently. It creates a new business line. Most of the sectors like transportation, hospitality and music disrupted the business. Now it is eyeing on capital market. A lot of effort has to push it, to bring the changes in the new things. Already changes taken place in equity market like electronic order books, alternative trading systems and algorithms.

The firm has to go for digital transformation in order to retain their competitive edge and also reducing cost in capital market. Capital market firms have "led the world" in driving business through high velocity technological advancement but there is more digital transformation. It is a "Innovator's Dilemma". It is an opening up opportunities for never who seek to disrupt the status quo.

Flood of smart mobile and tablets providing services in the form of mobility tools. These options comes in the form of apps which can enable the personal information like transaction life cycle, statement downloads, portfolio views and election options etc. Today's fast moving and interlinked financial markets can arise quickly and reflect in assets valuation. Today system is complex due to multiple lines of business and global operation. The above complexity adds the risk to involve in business which affects profit. Making information available digitally helps a supervisor combat the risk. Customer / user go through app / portal they can reduce the risk and gain full control in managing their risk priorities. Ease the burden and reduce the risk to the back officer user. To change a business model and to provide value producing opportunities to earn more profit, digitalization is very crucial.

Digital improves the efficiencies of business process, consistency and quality world wide. It reduces cost and integrated the record system worldwide but it is very expensive to implement of new digital channel. It helps in reinvent process, improve quality and promote consistency. It helps the decision makers to access the required information in any time, any device and at any place. It is high speed, agility and removes traditional barriers. It does not discriminate between rural and urban but it eliminates unnecessary process. It empowers the employees on the other hand it does not consider the employees similarly it makes consumers to involve in the firm but it does not consider consumers. Digital locker is available but there is a chance of loss of security due to cyber attacks by skilled people. It reduces human error. Increased in the digitalization can make companies more productive and enhance competitiveness.

Digital money:

Digital money is the means of exchange. It is a part of digital transformation. Digital money makes perfect in the system of both micro and macro economy. It reduces the weeds of unaccountable money. Final digital money comprises with acknowledged by tax department. So, that black money is reduced and white money can circulate in the economy, which benefits for society. The process from start to end point of transaction is very clear cut in digital money and it is acknowledge by the tax department. Therefore, digital money is so called money transparency. This money transparency made the investor's discouraged because it reduces the profit for them. Digital locker, E-mail, E-sign, Biometric attendance system etc are the various components of digital transformation. Among them digital money is also one of the important series in the component of digital transformation, which changes the whole economy of the nation. Already all the component of digital transformation is in progress except digital money. November 2016 is the black month for all the investor's, because implementation of demonetization, restriction on withdrawal and enforce the digital money in transaction. This made investor's change in their attitude and behavior in capital market. In capital market investor's are the centrifugal point. Any nation's economy is measured by its GDP. GDP of the nation is depending upon the various service providers, industrial producers and farm producers. But all of them depend upon the investors in the capital market. Due to the enforcement of digital money in the month of demonetization investors lag behind to invest in the capital market which led to the negative impact in capital market. It was observed that the negative impact is only for three months i.e., from Nov-2016 to Jan 2017. From Feb 2017 to Nov 2017 it was found to be in recovery stage. So it had been a sudden downward cascade effect from Nov-2016 till Jan 2017 and then a slight upward cascade effect from Feb 2017 to Nov 2017 in the wavelength of nifty.

About the Stock Market:

Indian stock market is about 250 years ago and it is one of the oldest markets in Asia. In 18th century East India Company occupied the stock market and business loan in its securities is used to transact. The earliest record of security dealing in India is manager and obscure. In 1830's business on corporate stocks and shares in bank and cotton presses took place in Bombay. In 1839 even though the trading list was broader it is found only half a dozen brokers recognized by banks and merchants during 1840 & 1850.

In 1874 Dalal street is a place found in Bombay by stock brokers where they conviently assemble and transact business at the end of American civil war. In 1887 the Native share and Stock brokers association established formally. Finally, in 1895 It is renamed as Stock exchange and in 1899 it is inaugurated. Thus, the stock exchange at Bombay was consolidated.

There are 23 stock exchanges in India. Out of 23 stock exchanges the National stock exchange of India is the largest in term of the volumes and turnover. The National Stock Exchange covering various cities and towns across the country. NSE was set up by leading institutions to provide a modern fully automated screen based trading system with national reach. The exchange has brought about unparalleled transparency, speed and efficiency, safety and market integrity. It has setup facilities that serve as a model for the securities industry in term of systems practices and procedures. NSE has played a catalytic role in reforming the Indian securities market in terms of micro structure market practices and trading volumes.

The market today uses state-of-art information technology to provide an efficient and transparent trading, clearing and settlement mechanism and has witnessed several innovation in products and services viz. dematerialization of stock exchange governance, screen based trading compression of settlement cycles dematerialization and electronic transfer of securities, securities lending and borrowing , professionalization of trading members, fine-tuned risk management systems, emergence of clearing corporations to assume counterparty risks, market of debt and derivative instruments and intensive use of information technology . The NSE has a large number of stocks. But the study of the whole of the NSE was infeasible. Hence a sample consisting some of the stock listed on the NSE are consider for the research purpose. The sample of the stocks for the study is the ones which from the S & P CNX NIFTY Index.

Squeeze & Rebound in FMCG:

FMCG index comprises 15 major companies including Britannia, Colgate, Dabur India, Emami, Glaxo smith, Godrej Consumer & Ind, HUL, ITC, Marico, United Breweries, etc which provide products like personal care, food processing, breweries & distilleries etc,

Chart – 1

Slump & Bounce back Automobile:

Auto index comprises of maximum of 15 stocks like Raja Amara Batteries Ltd., Apollo Tyres Ltd., Ashok Leyland Ltd., Bajaj Auto Ltd., Bharat Forge Ltd., Bosch Ltd. Eicher Motors Ltd., Exide Industries Ltd., Hero MotoCorp Ltd., MRF Ltd. Mahindra & Mahindra Ltd., Martin Suzuki India Ltd., Mother son Sumi Systems Ltd., TVS Motor Company Ltd., Tata Motors Ltd, DVR & Tata Motors Ltd, who are manufacturers of cars, motorcycles, heavy vehicles, auto ancillaries, tyres, etc. The base date of the index is January 1, 2004

Chart – 2

High tide Ripple & Back Pitch in Real estate:
Real estate comprises major companies including Delta Corp, DLF, Godrej properties, HDIL, India bulls real , Oberoi realty, Phoenix mills , Prestige estate, Sobha & Unitech etc.,
.

Chart -3

CASA Raise & Credit Dip – wave up in Banking Sector**:**

Bank index comprises of maximum of 12 stocks including both public & private sector banks like Bank of India, Bank of Baroda, Canara, Punjab National Bank, SBI, HDFC, ICICI, Axis, Federal, Indus Ind, Kotak Mahindra & Yes bank etc.

Chart – 4

Generally, it could be easily observed from the above chart except banking sector, that there was a downward cascade effect from Nov 2016 till mid month of Jan 2017. And upward cascade effect from the mid month of Jan 2017 till Nov 2017. Both the downward and upward trend indicates the nifty index. Index indicates the capitalization of nifty. Digital money is considered as a factor of beta, beta is a systematic in nature. The great literature like William Sharpe, Stephen Ross and Markowitz says investors are belonging in to two different categories. They are risk averse and risk taker. Type of risk averse, they do not like to take high risk. Risk taker categories of people are ready to take high risk and they expect high return in a short period. Share market is the platform, where money can grow very high as soon as possible. So, the investors prefer to invest in the capital market rather than any banking or any financial institution. In the month of Nov-2016 made the drastic change in the attitude and behavior of the investor's. Not only demonetization and restriction on withdrawal but also digital money is the important tool which disturb the investor's attitude and behavior.

Transparency in the Digital Money made investor's to lag behind in the investment. Whole economy stands on the hand of producers and service providers. But these entire service provider and the producers depend on the investors. Without these investors how can it possible to produce good output. Implementation of digital money to remove the weeds of black money is the right measures. But India is a democratic nation before implementation it is better to take collective decision rather than individual decision. The wave length of the stock market indicates the attitude and behavior of investors. The wave length had been normally ups and down. But from the period of implementation of digital money which is a part of digital transformation, wave length could be seen in major two half cascade patterns. From the period of Nov-2016 till mid month of Jan 2017 downward cascade effect. And it took upward cascade effect from mid month of Jan 2017 till Nov 2017. Therefore from this it is concluded that the negative attitude and behaviors of investors is affected by digital money in downward cascade and upward cascade effect is reflected due to the positive attitude and behavior of the investor's. Similarly, GDP of this quarter is rebounded when compared to last quarter of this fiscal year.

Literature review:

1) **The Sharpe Index model**: **William Sharpe** introduced this model. It is based on the **security's return** relationship with the **index return**. Beta is the deciding factor in measuring the systematic risk & risk can be reduced by diversifying portfolio. This concept is closely related to CAPM.
2) **Capital Asset Pricing Model**: **Markowitz, John linter & Jan Moss in** are the founder or basic structure for 'Capital Asset Pricing Model' & these authors says there is a linear relationship between **required rate of return & assets beta**. And risk can be minimized by diversification of portfolio.
3) **Arbitrage Pricing Theory: Stephen Ross** developed the Arbitrage Pricing Theory (APT). This theory says investors' tries to find out the possibility to increase return from his portfolio without increasing the funds in the portfolio.

Common assumption of above all the theory is as follows*:*

- The investors have homogeneous expectations.
- The investors are risk averse and utility maximizes
- Perfect competition prevails in the market and there is no transaction cost.

Findings

- Lack of online infrastructure
- Lack of high speed internet network
- Lack of secure in digital transformation
- Limited villages are connected to broad band
- Lack of percentage in people those who know English
- In sufficient digital locker facilities
- Insufficient services in E- health
- Lack of service providing in E- Education
- Lack of broad band in railway station
- Internet subscribers are very limited from rural areas
- Insufficient effort in research work
- High volatility in share market, commodity market, bullion market etc.,
- Sluggish growth in real estate, infrastructure, automobile, FMCG , capital goods, metal industries , media & entertainment & IT sectors etc.,
- Discouragement in investors those who expect more returns
- Imports & exports decline
- Decrease in currency value
- Compressed in FDI
- Increased in deflation
- Slump in trade volume
- Operational inefficiency & Market inefficiency increased.
- Capitalization declined
- Unemployment increased
- Savings & Investment lagged
- Liquidity become crunch
- Delay in settlement process
- GDP decreased
- Huge disturbance in agriculture , industrial & service sectors
- Very slow & limited in the circulation of money
- High risk & low returns

Suggestion

- ✓ Before implementing the digital transformation, it should bring awareness among citizen
- ✓ Digital literacy programmes should conduct among all over the citizens of India.
- ✓ Digital literacy should also reach to the rural peoples
- ✓ Companies need to create an environment where employees are encouraged to explore opportunities for transforming customer experience, operations and business model .
- ✓ Top- bottom transformation of leading by management should be very strong
- ✓ Each companies in the country should become digital masters
- ✓ Along with digital transformation development programme, remonetisation with higher value currency should also be consider
- ✓ Restriction should be with drawn
- ✓ Some flexible & relaxation should be given before implementing the tool of digital transformation
- ✓ Trading policy, monetary & fiscal policy should be review.
- ✓ Subsidiaries should enormously provide for all small, medium & large of agriculture, industry & servicing sectors.
- ✓ Huge Employment opportunity should be created
- ✓ Attractive incentives should provide to increase savings & consumptions.
- ✓ Good Rebates & exemption schemes should introduce to encourage the tax payers.

II. Conclusion

Leaders from abroad broad band committee like silicon valley, Google, Microsoft, face book Qual Comm. were promised to support in implementing of Digital Transformation in India in Digital India Summit . The digital programme has been favoured by multiple countries including the U.S., Japan, South Korea, the UK, Canada, Australia, Malaysia, Singapore, UZ bekistan & Vietnam etc. Digitally six lakh people are digitally illiterate in rural areas across all over the India.

So, Pradhan Mantri Gramin Digital Saksharta Abhiyan scheme should reach the every village in India. Panchkula district of Haryana is a role model and it was awarded for being the best as well as top performing district in the state under the Digital India Campaign. It is very difficult to change in fundamental attitudinal & institutional Business model. Government has to provide much more Wi-Fi connection with free of cost or with affordable price to increase the internet subscriber. At least one person or a member from the house hold should be digital literacy from rural areas. There is a both pros and cons of digital transformation. From the point of view of pros India could be stand in the list of Top country in an economy at global level. Implementing the digital money can reduce the flow of black money , increase the flow of white money , advanced technology could enter in to the Indian business model. The business run smoothly, systematically robotically automated services may be available. Even though if it reduces the number of employees in an organization, it empower the employees in their efficiency.

Nifty & Sensex are the economic barometer of our Indian capitalization. The indices of nifty & sensex are the empirical evidence which show the impact of digital transformation on capital market. Casual observation of the stock prices over a period of time reveals that most of the stock price move with the market index. When the sensex increase stock price also tend to increase & vice versa. Investors would like to have assets with low beta-coefficients i.e., systematic risk. Investors would opt to have assets with high beta-coefficient only if they get high returns. Therefore it is easily understand the risk averse nature of the investors is the under lying factor for his behavior.

Beta is the negative risk. Risk is classified in to two unsystematic & systematic. Unsystematic risk is internal factor & controllable in nature. Systematic risk is external & uncontrollable in nature of business. Digital transformation is one of the systematic risks which affected severely the whole Indian economy system. Not only digital transformation, demonetization, Brexit affected the oil & refineries industries and also Mr. Donald trump's decision on H1B1 visa severely affected on Information technology sectors.

As per the technical analysis of the indices in the two half of observation period. The first half of the research period is from Nov - 2016 to Jan-2017, and the second half of the research period is from Feb-2017 to Nov - 2017 of reporting date. In the first half of the research period, it had been seen that sudden downward cascade effect from Nov-2016 to Jan -2017 which indicate high risk & low return. It is clear from Nov-2016 to Jan – 2017 that all investors would like to hold only market portfolio & riskless securities. In this period, all the investors would prefer to provide proper safety for their holding securities. It is not possible to make arbitrage without increasing their funds said as per Stephen Ross in APT model & to reduce the risk by diversifying their portfolio as mention in CAPM by Markowitz . Because all the stocks lies under the Capita Market Line & Security Market Line with non-linear relation i.e., indicating irregular pattern with high risk & low return. Therefore, in this situation in the capital market from the point of view of investors , as per the literature said "high risk - high return " become false.

Similarly, gradually it appeared the upward cascade effect from Feb - 2017 to Nov- 2017 which indicate high risk and high return. It is clear that second half of the research period from Feb-2017 to Nov – 2017 was proved, as per the literature statement that "investor's expectation is "high expect- high return. There fore, investor's would like to take more risk expecting high return. So, without any hesitation investor's did not lag behind to invest. They took bold steps and they started to invest in capital market. Hence rebound is found in capital market.

Finally, I would like to conclude that there are two half research period. The first half research period was from Nov-2016 to Jan – 2017 and the second half research period was from Feb- 2017 to Nov – 2017. The first half research period made the literature statement false and second half made the literature's statement prove. There fore it had been observed both negative and positive impact of digital transformation. That is, in the first half it indicates in the beginning of the implementation of digital transformation the investor's did not accept. So, in the capital market due to the lack of investment it had seen sluggish. And the investors expected to watch the bounce back in capital market. Later on, gradually in the second half of the research period as per the investors' expectation, investors saw a bounce back or recovery in the capital market. That is, it indicates investor's are gradually accepting the digital transformation, therefore the investor's started to invest in the capital market.

Hence swiftness of the index shows the empirical evidence of capitalization in stock market due to digital transformation. Therefore the above mentioned in the findings are the results of both negative and positive impact of digital transformation.

***Impression*:** The study of overall says that in the first half of the research period the investor's hold their securities with **low–beta coefficient** and expecting safety for their available funds rather than high returns it had seen downward cascade, and in the second half of the research period that the investor's hold their securities with **high – beta coefficient** and expecting high returns and the investors come forward to invest in the capital market. Therefore it had been seen upward cascade effect in capital market in second half.

References

[1]. Matt Hop good Sapient, Capital Market Feel Digital Transformation in "The digital Transformation Of Capital Markets" Part 1
[2]. Stephen Jenney Capital Group, Digital Transformation Agility Needed in "The digital Transformation Of Capital Markets" Part 1I
[3]. John Reilly Wells Fargo Advisors, Digital Transformation = Cultural Transformation in "The digital Transformation of Capital Markets" Part III
[4]. Josh Sutton Sapient, Digital Transformation in "The digital Transformation of Capital Markets" Part 1V
[5]. Daizy Mehta and C Damodhar in Digital Transformation in Capital Market.
[6]. Anand Bansal & JS Paricha (2009), "FII Flows to India, nature & causes ", Money & finance, Volume 2, Issue, Dec-13.
[7]. Venkatesh S , Capital Market, Vol.xxx1/20, Nov-21, Dec-04-2016.
[8]. Vijay Ghukukade, Capital Market, Vol.xxx1/20 Nov-21, Dec-04-2016.
[9]. Strong Treasure Income, Banking, Capital market, Volxxx1/21, Dec-05-18, 2016.
[10]. Automobile, Capital Market Vol.XXX1/21 Dec-05-18, 2016.
[11]. FMCG, Capital Market Vol.XXX1/21 Dec-05-18, 2016.
[12]. Abneesh Roy, senior VP, Edelweiss Financial Services, Dalal Street Investment Journal – 1, Vol-32 No.2, Dec 26, 2016- Jan 8, 2017.
[13]. Money life- Personal Finance Magazine, 23 June-July 2017.
[14]. BSE, NSE, Stock Market Indices, SAPM, Punithavathy Pandian, 2008.
[15]. Risk, Return, Technical Analysis, SAPM, Punithavathy Pandian, 2008.
[16]. Portfolio, Hary Markowitz Model, SAPM, Punithavathy Pandian, 2008.
[17]. The Sharpe Index Model, SAPM, Punithavathy Pandian, 2008.
[18]. Arbitrage Pricing Theory, SAPM, Punithavathy Pandian, 2008.
[19]. WWW.moneycontrol.com
[20]. www.investopedia.com
[21]. www.rbi.com
[22]. www.economictimesofindia.com
[23]. www.vikaspublication.com
[24]. www.capitalmarket.com

Chatti Venkata Raghavendra Rao. "Analysis Of Comparitive Methods for Edge Enhancement Filters." International Journal of Engineering Science Invention(IJESI), vol. 7, no. 1, 2018, pp. 33-39.