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A STUDY OF TRADITIONAL FINANCE AND BEHAVIOURAL FINANCE: RATIONALITY TO IRRATIONALITY

Surbhi Sharma[1]

PhD Scholar, Department of commerce, Manipal University Jaipur, Jaipur, Rajasthan, India[1]

Email I'd: sur02sharma@gmail.com[1]

Dr. Saurabh Sharma[2]

Associate Professor, Department of commerce, Manipal University Jaipur, Jaipur, Rajasthan, India[2]

Email I'd: drsaurabh.sharma@jaipur.manipal.edu[2]

Abstract

Purpose of this research to do detailed study in the area of traditional finance and behavioural finance. This paper is focused on understanding the reason behind investment decision making and how financial theories like EMH are ineffective to understand market variances and human behaviour. There are two divisions to analyses the review and discussion of literature as follows development phase of EMH and disappointment of EMH, which introduce the area of behavioural finance. Efficient market theory is first introducing by Eugene Fama in the year 1960s. After that EMH model turn into most significant financial model in the area of enlightening the stock market behaviour, it is considering as the best model to predict stock market in 1970s. Current research introduce how behavioural finance evolve from the major drawback assumption of rationality in domain finance. This research is beneficiary or academician, stock market investor as well as financial market managers so they can understand stock market behaviour.

Key words: *Behavioural finance, Efficient market hypothesis, Rationality, Irrationality.*

Introduction

In the area of finance there are two activities which are majorly consider: primarily how to obtain funds and secondly take decision to manage and invest that fund efficiently. Decision making play an important role in the area of finance, there are further disciplines similar psychology,

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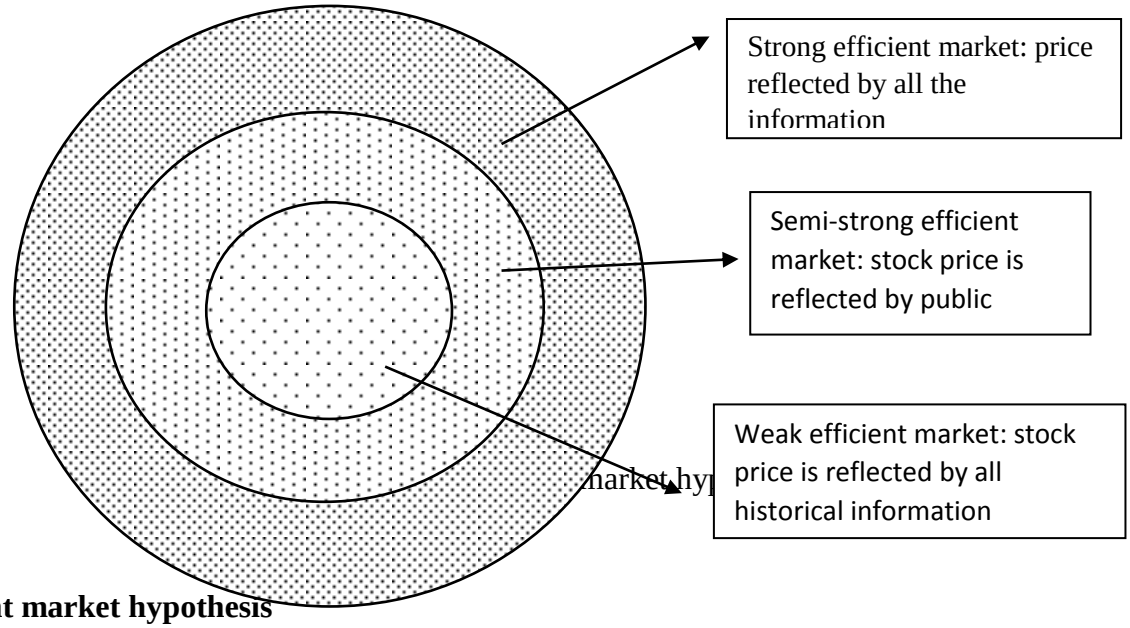
sociology, mathematics, economics, political science and statistics where decision making is prevalent (Kahneman & Tversky, 2013). According to expected utility theory decision making is categorized into two parts which are risky and uncertain vision by associating the utility value of their substitutions (Kahneman & Tversky, 1979). Future it classifies the decision makers into "risk averse", risk taker" and "risk neutral" entities. Through this theory one can understand that the utility function is different in different category of decision makers. Hence, this theory deliberates as one of the revolutions to recognize the individual's decision making. In the area of economics this theory contribute massively, mid eighteenth century was the time which known as classical period of economics (Pompian M.M, 2006). The conception of rationality and "homo economicus" is introduced by J S mills in 1844, who tries to enhance his economic prosperity with the existing resources and restrictions. This perception forms the essential hypothesis for maximum number of economic theories. The economic theories of decision making are the base of traditional finance school of thoughts. The arbitrage principles of (Modigliani & Miller, 2013), the EMH of (Jensen, 1978), the portfolio principles (Kumar & Goyal, 2015), the CAPM of William Sharpe (1964), Treynor (1961) and John Linter (1965) (Chen, 2021) and Option Pricing Theory introduce by (Jensen, 1978) are measured as the mainstays which designed the facts of traditional finance (Statman, 2014). Modern finance is the combination of all the above theories which are based on some assumptions like: one should behave rationally, there is a highly efficient market, investors have to behave analytical and finally investors are presumed to be risk averse (Subash, 2012). The economist have faith in traditional finance and believed that they are error free, because the theories are based on assumption of rationality(Athur, 2013).



Efficient market hypothesis

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In 1960s and 1970s developing phase of EMH:

In 1965 Eugene Fama is the one who introduced the theory of efficient market hypothesis. EMH reflected as one of the foundation of traditional finance. In the period from 1960 to 1990 this theory is frequently reviewed. Behavioural finance is the result of that advancement in EMH, which explaining the heuristics and behavioural biases of financial market applicant(Fama, 1965). Efficient market hypothesis explaining the efficient market, where real value of stock or share should be identified by the available information regarding stock, if there is any alteration in information it instantly indicates the stock price (Fama et al., 1969). Stock market is unpredictable because price of stock is instantly reacting with the new information in market, that's the reason it's difficult to recognize the pattern of movement in stock price, as there was no pre define design to identify the movement in stock market. Therefore, the theory of EMH is correlated with the theory of random walk of stock price, which declares that prediction of future path of share market price is challenging to analyses rather than predicting the random number of series. In this manner, it is obvious that prediction of future price of stock is not easy and one cannot rely on past data to predict the future price of the stock(Fama, 1998). That's the reason behind the fundamental and technical analysis of future price prediction consider irrelevant by the Fama. (Dupernex, 2007) suggested that stock price need not to follow the arbitrary pattern and there is no literature which suggested that stock price change in random walk, which concluded that there is no connection in between random pattern of stock and market efficiency or investors rationality, it is statistically not significant. In the first decade EMH is the model which is largely acceptable by the investors because its explanation on stock market behaviour (Subash, 2012) An American economist Michel Jensen is a big admirer of EMH model once he said "there is no other proposition in economics which has more solid empirical evidence supporting it than the Efficient Market Hypothesis" (Jensen, 1978). After this statement this model is examine by so many economists on experimental and theoretical grounds on questioning the presence of EMH in real word scenario, because the price of stock market is not entirely replicate to the information. If the information replicate than there is no advantage for arbitragers (Grossman & Stiglitz, 1980). Consequently, (Kahneman & Tversky, 1979) describe in their examination of "Prospect theory: An analysis of decision under risk" confronted the assumption of rationality, and demonstrated that under the situation of uncertainty person act indifferent, once they have alternatives for choice. Individual behave different they showed their risk aversion behaviour when they have guaranteed return and risk seeking behaviour when they have certain losses. Consequently,(Kahneman & Tversky, 1979) this study become the pioneer of human psychology which include financial market decision making.

In 1980s introduction of behavioural finance:

(R. Thaler, 1980) reviewed economic theories which analyze how buyer create their buying decision. According to (R. Thaler, 1980) economic theory is a mixture of normative and positive theories and its rely on "rational maximization model". Buying decision of consumers are based

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on the information which are available in market and with that information they make rational decision according to their interest. (De BONDT & THALER, 1985), (R. Thaler, 1980)recognize some circumstance where economic theory unable to predictable consumer decision making, through this he point out some errors of decision making such as "regret aversion", "underweighting opportunity cost", "self-control". Now this time there is a rise of new disciple named as "behavioral finance".

In 1985 two researchers named Bondt and Thaler collaborate whit each other for profounder study in the field of behavioural finance they assumed that individual investor's behaviour can lead to over and under rate the share valuation in NYSE (De BONDT & THALER, 1985). They practice the theory of experimental psychology to examine shareholders behaviour and establish that unexpected news is the reason behind investor's overreaction in stock market. Their findings explained their assumption and help to find out that "losers" portfolio beaten the "winners" portfolio which point out that bad news is the reason behind the investors overreaction, which influence investment decision. Late 1980s EMH theory is challenge by a famous psychologist (Andreassen, P., & Kraus, S., 1988), he directing an experiment on investors where he gave past stock price to investor and he try to conclude how past stock price influence investment decisions. (Andreassen, P., & Kraus, S., 1988) he gave all the information about past bubbles to the subjects and analyze how the subjects of experiment conclude the past price to predict future bubbles. 1980s is the decade where many question were raised on the theory of EMH.

In 1990s – rise of behavioural finance and termination of EMH

1990s is the era where several researches are done in the area of BF which support BF in the main stream mainly into academics. According to (Duxbury, 2015) academician's focus moved to analyze time series data using econometric analysis in the direction of behavioural theories which investigate the influence of human psychology on financial market. After that in year 1991 thaler and shiller commence a "National Bureau of Economic Research Conference" emphasis on behavioural finance. In the area of psychology 1990 is the revolutionary period which initiate the field of behavioural finance, where human feelings signify an important role to understand financial decision making (Hong, 2007),(Miłaszewicz, 2019),(Faulkner, 2002). The growth of behavioural finance combined well with the development of psychological theories, which enhanced the considerate of behavioural aspects and their influence toward financial decision making (Dhankar & Maheshwari, 2018), (Mushinada, 2020),(Zahera & Bansal, 2018).

Internet stock bubble is studied by R.H. Thaler, where he applied behavioural finance theory to understand internet bubble and criticized EMH because it's bound to rationality. According to (R. H. Thaler, 1999b) 20% to 30% market is overvalued and the reason behind this overvaluation is equity trader they are eager to bet on failure of the index had fewer cash to effect the financial stock market. The investors of US, use rule of thumb for share allocation, where 60% of shares are equities and therefore indifferent to share price. To avoid losses investor should design their

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portfolio according to market information concluded by R. H. thaler. If they ignore the financial market information or news they may ready for the market crash like internet bubble blast in 2000, DJIA lose 30% of the valuation in this bubble blast. After the ex post facto analysis of bubble blast, behavioural finance theories become more credible in the area of making investment decisions (Singh et al., 2021).

A new discipline in finance: Behavioural Finance

It is an interdisciplinary field which incorporates the theories of psychology and behaviour with traditional theories of finance and economics. In the field of behavioural finance one can recognize market anomalies and the reason behind that anomalies are human mistakes, which is identified by behavioural finance (Jensen, 1978),(De BONDT & THALER, 1985). Though this domain of behavioural finance tries to aware with individual and institutional investor's decision and market behaviour (Neelakantan, P.R., 2015).

In BF, investment decision and market outcome is based on investors behavioural traits and the information they receive about the market or stock (Baker & Wurgler, 2007). As a conclusion, investors behave irrational during sub optimal investment decision and these sub optimal decision influence effectiveness of capital market and investors wealth (Baker, H.K. and Nofsinger, J.R. eds., 2010). 18th century is the period when first Adam Smith's imperative work about this area. The significant work in this area embrace "The Theory of Model Sentiment (1979)" & "Wealth of Nation (1776)" describe around people's behaviour which lead them economic, social and financial decision making and emphasize on sentiments which play an important role in decision making. (Bentham, J., 1781), (Bentham, J., 1948) criticize that "human concern for happiness makes it impossible for them to make a decision that is entirely devoid of emotions". (Selden, G.C., 1912) identify that investors behaviour is the reason behind the movement in share price. There are so many criticisms in the field where researchers talk about significance of psychology in economic behaviour. In the time during 1960s & 1970s a new domain in finance is introduce where one can see the involvement of psychologist, consequently while examining economic decision researchers find so many heuristics and biases (Chapadia, C.V., 2014).

Kahneman and Tversky are the Nobel prize winner who known as "Father of Behavioural Finance". Majority of the effort in the discipline of BF is recognized by them. There first paper is published in the year 1971 with the title "Belief in the Law of Small Numbers" after that in 1974 present a paper on "Judgment and Uncertainty: Heuristics and Biases", through this article they identify three biases/heuristics named as: representativeness, anchoring and availability. (Tversky, A. and Kahneman, D., 1974) they concluded in their research that if person have understanding of above three biases then they will take better decision under uncertainty.

Behavioural finance is the field where one can understand the investors behaviour and how these psychological factors of investors have significant impact on stock price. ((Statman, 2014)) they

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analyze in their research and categorize people into two part: "rational people" and "normal people". Rational people describe as the person who take logical decisions and normal people describe as the people who are influence by psychological bias and heuristics while taking decisions, however it does not mean that they are totally irrational. In the same way (R. H. Thaler, 1999a) find two type of investors in their research the first one is perfectly rational investors who are difficulty to find in real world scenario and the another one is quasi rational investors who want to create valuable decision but they are influenced by some behavioural biases/heuristics, quasi rational investors are the subject we studied in behavioural finance. In traditional finance there is an assumption of rationality which is a major drawback of this area, because of these assumption market anomalies arise (Kumar & Goyal, 2016). There are some illustrations which describe the failure of traditional finance because of assumption of rationality and these are dot com bubble (1999), subprime crises and the real estate bubble (2006). These bubbles are evidences that investors are irrational while taking investment decision because they are influenced by behavioural biases (Mushinada & Veluri, 2019).

In BF there are a term cognitive error which is the outcome shows the impact of biases/ heuristics on investment decision. According to (Shefrin, H., 2002) behavioural biases are widely classify into two type which named as dependency biases and heuristic driven biases. M. M. Pompian, 2011 called biases a systematic inaccuracy of judgment and categories into two part cognitive biases and emotional biases. Representativeness, cognitive dissonance, anchoring, and framing are fall into cognitive bias category and loss aversion, optimism and regret aversion fall into emotional bias category (Habbe, 2017),(Kahneman et al., 1991) These behavioural biases play a vital role to understand financial market behaviour because behavioural biases influence investor to take irrational decisions and influence stock market(Trejos et al., 2019),(Antony, 2019). The result of ignoring these cognitive and emotional biases are stock market crash and bubbles. Thus it is important to understand the area of behavioural finance specifically behavioural biases to take better decision in financial market.

Conclusion:

Behavioural finance is an interdisciplinary area which includes sociology, psychology and finance discipline. This discipline provides in-depth study of financial markets. Traditional finance theories like EMH is based on the assumption of rationality which is the major problem of the theory, which conclude market anomalies. Financial market anomalies are the reason behind market overreaction and under reaction (Subash, 2012). The aim of behavioural finance is to analyze the anomalies and enlightening humane perception toward investment. The theories of behavioural finance supports financial professionals to recognize their own errors which they make while doing investment in financial market. However, to understand essence of BF investor should analyze his own investment decisions and gain expertise in it. BF is a novel domain in comparative to other domain of finance, therefore there is so many areas where is need to do in depth study. (Zahera & Bansal, 2018) suggested that there is massive area in

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behavioral finance which can be studied in future. This study recommended that in future behavioral biases should be studied on financial intermediators and investor psychology. There is a scope in developing country to study behavioral finance is depth. There should be massive opportunity of behavioral factors should be study in future. (Kumar & Goyal, 2015) discover that investor behavioral biases may affect investor decision making ability and because of these factors investor are not taking rational decisions. This research is beneficiary or academician, stock market investor as well as financial market managers so they can understand stock market behaviour in depth.

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