Behavioural Finance; a Concept or Catalyst Explaining Distortions in Investment Decision

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Abstract-Behavioural finance, recent development, challenging the classical models, explains investment risk at the instance of irrationality of cognitive psychological influence and phenomenon in arriving at investment decision. Claimants of business financial assets make choices that satisfy their interest best dependent on relevant and reliable financial information, communicated to potential investors. Distortions in the processes may lead to investment failure, and taking responsibility is severally assigned. The study investigates how behavioural finance is a distinct concept and theory as cognitive psychology or diagnostic phenomenon in distortions in investment decision. Literature is perused to address the study objective. In the contemplation of the study behavioural finance may deviate as a unique concept on its own in investment decision making, but catalyst and arbiter for goal congruence to be achieved at any stage in the decision process.

Index Terms—Behavioural Finance; Financial Information; Communication Distortions; Noise

I. INTRODUCTION

Some research studies have shown that investors do not behave rationally in making decisions. Behavioural finance based on two building blocks of cognitive psychology and limits to arbitrage has questioned the rationality of investment decisions through classical/traditional financial theories. Reference [12] explains how investors may react irrationally to information in making investment decision. Cognitive psychology explains how people think, perceive and remember, and limits to arbitrage depict the arbitrage opportunity in the market and, arbitrageurs may not be able to make profit from market dislocations because of their irrational behaviour [79]. Reference [53] developed the prospect theory for decision-making under uncertainty. Prospect theory believes that some psychological factors influence the investors' decision-making and deviate them from the rationality, supporting [92] argument of bounded rationality.

Behavioural Finance as championed by [50] and other authorities posited that investors are acting on the basis of emotional and instinctive components not necessarily on optimizing and rational. Reference [91] worked on rational choice behaviour; [94] investigated and emphasized the wrong

perception of risk by individuals; [53] on psychological research on human judgement and decision theory in condition of uncertainty. These positions are portraying behavioural finance as a different and separate concept in arriving at an investment decision and choice. It is also establishing investment decision as an event characterized by emotions and uncertainties and therefore not a process to be guided by any rational thinking and framework. It is challenging the classical models [63]; [86]; [31]; [91], construct of the efficient frontier. The current developments directing attention to the behavioural science as a potential driver playing significant role in investment decision [59]; [45]; [87]; [90]; [12]; [18], is challenging the rationality of investment decision based on classical models and that investors could be swayed by their cognitive impinges in assimilating available information or without any financial information.

A review carried out for the OECD summarises the range of obstacles and challenges identified by behavioural economists that compromise good investment decision making ([100, 21]. Six obstacles are widely accepted and frequently cited in the literature on investment choice: choice and information overload, unstable or undefined preferences, heuristic decision making (use of short-cuts and rules of thumb), framing effects and investment menu design, procrastination and inertia, and overconfidence ([100,21]. These clearly are noise in a decision process. Neoclassical economic models suggest that the stock market would function efficiently when market participants are rational and fully process all the available information in making investment decisions in an unbiased way [31]; [79]; [69]. Different investors may have different information needs and volume from different source that could affect the efficiency and outcome of the decision. Institutional investors are said to be rational and trade most of the stocks, with the tendency that they would use all the available information in their decision making thereby leading to an efficient market [69]. On the other hand, the concept of bounded rationality suggests that individuals can only process a limited set of information available in the market [69]. Limited human capacity hinders processing a broader set of information [92]; [67]; [52]; [69]. Therefore, instead of using all the available information, individuals typically reduce the amount of information used to a more manageable set [89]; [83]; [22]. Along the lines of this argument, institutional investors also

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confine their information sources to selective information. Reference [55] found that institutional investors behave speculatively resulting in market inefficiency.

There are processes in all investment decisions whereby there should be the need for information to be identified, communicated through media of different types, different tools used to analyse the data and choice made. In all these choice making processes the mental capacity would be the arbiter. There are individual differences here dependent on the psychological disposition of the person involve and the situation. The psychological behaviour is not a one-off event engineered to produce a character synonymous with every investor and his motive and self-interest. To restrict the possibility of traditional or classical and behavioural theories synchronizing all available information in a process of rational investment decision to just an event of cognitive psychology can be a fallacy. Building blocks of cognitive psychology and limits to arbitrage which is questioning the rationality of investment decisions through classical/traditional financial theories, and arbitrageur's loss of opportunity in market dislocation, exposes behavioural finance to be a thermostat, an enclosed concept, with no interaction with its environment. The self-regulation and independent systems depicted by behavioural finance evolve to an event not requiring any information for any analysis to make a decision and choice, either rational or irrational. At the end any investment or corporate failure is blamed on the innocent investor for making the wrong decision and choice with management and agents of the firm escaping blame. In any phenomenon that has options or alternatives there should be a choice and the choice is made in a decision process. Investment decision is not made in a vacuum. It has to go through a process and in any activity with processes involving judgment, there is bound to be errors, mistakes, limitations, distortions and biases. These could be noise in the process and should not be strange in the investment decision process to create a field of new thinking in investment and finance. Behavioural initiative is not an event but catalyst to facilitate investment decision and judgment. The rest of the study covers the following sections; responsibility for rationality of information, rationality of communication for decision making; behavioural finance as a credible alternate to classical theories; psychological distortions and emotions as noise in investment and the conclusion discussion and recommendation.

A. Conceptual Framework

Classical theories or models are market-oriented targeting potential investors to provide them with the necessary information for their investment decision. The investment decision processes revolve on data collection and analyses as a phase and cognitive process works on the data facilitated by personal and social psychology disposition to select information that satisfies the interest of the investor. The information is used to derive alternate decision in the cognitive process and make the final investment decision. There is automatic feedback working on noise and distortions in the

system to progress in investment decisions through adjustments, confirmation and rejection of existing portfolios as in Fig a. Behavioural finance by implication may be of specific and independent oriented with no reference to the classical and traditional models. Everything is inbuilt with no interaction outside as depicted in Fig b.

The figures bellow explains the conceptual framework

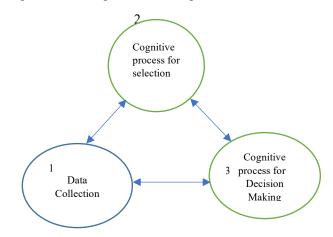


Fig a: Investment decision as process

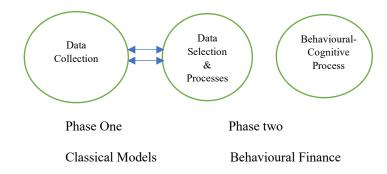


Fig b: Behavioural finance as an event

II. RATIONALITY OF INFORMATION FOR INVESTMENT DECISION TO AVOID DISTORTIONS

Behavioural finance proponents focus on irrationality of investment decision emanating from improper handling and use of information. Investors do not behave rationally in making decisions based on classical/traditional financial theories. Reference [12] expressing their position on cognitive psychology pointed out that investors may react irrationally to information in making investment decision due to how people think, perceive and remember. The proponents view on limits to arbitrage and its opportunity in the market to make profit from market dislocations is lost because of arbitrageurs'

irrational behaviour [79]. Reference [53] with their prospect theory for decision-making under the uncertainty believes that some psychological factors influence the investors' decision-making and deviate them from rationality. Reference [92] presented an argument of bounded rationality depicting selection of limited information to make investment decision. Reference [50] and other authorities posited that investors are acting on the basis of emotional and instinctive components not necessarily on optimizing and rational.

Behavioural finance advocators are raising concerns about financial information to guide investment decision. The relevancy, adequacy, source and type of information and how presented and communicated to make it rationally potent to make rational reliable decision devoid of any failure of any form are factors not considered. As claim by [13] the rationality assumption is limited by time, information availability and cognitive ability. Reference [13] further stressed that rationality assumption also ignores important variables for the decision-making process such as emotions, morals and ethics, image, ego, social status, context and pressure. Investors rely on available information to make investment decisions. Information acquisition affects trading [3] risk taking, portfolio diversification [2], and portfolio performance [69].

Information for investment decision should be of importance, adequate, relevant, reliable and credible [4]; [66; [65]; [64]. The information may come from the management of the firm, the industry or market publications, professionals and financial experts, public regulatory institutions, and other unstructured and informal sources. The information may be fundamental [4]; and non-fundamental [36]; [12]) to the decision process. Fundamental information include company's stock characteristics, financial situation, industry and sectional information and non-fundamental comprising technical analysis like chart analysis, and moving averages [69]. Information from management comes in the form of annual financial statements [84]; [1]; [81] comprising; performance statement for the period under review, the state of affairs as at the final day of the year or period of operations, the cash flow statements and the notes explaining how certain figures are arrived at. Without information there is nothing like rationality of investment decision.

The rationality or irrationality of the decision is dependent on the information from management and how communicated to reduce distortions. Reference [69] in their study on information sources and investing decisions on the Malaysian Stock Exchange focusing on institutional investors saw the importance of information. Investors did not use fundamental facts of the company performance and technical indicators but rely on other information sources because of irrationality of information and the cost, affirming bounded rationality. Reference [66] found that bounded rationality is caused by limited availability of information and limited cognitive ability and price influencing decision differently. Reference [18] contemplating on bias or rationality, the case of UK commercial real estate saw over concentration of investment

in some sectors than others defeating investment rationality for herding. It came out that management get some places better exposed to attract the investing public. With management orchestration and manipulating information and communicating in discretional manner then rationality in investment decision becomes impossible.

III. RATIONALITY OF COMMUNICATION IN INVESTMENT DECISIONS TO AVOID DISTORTIONS

Having information source and content is not enough and an end to be rational for investment decision unless it is also communicated rationally. To envisage communication in the ordinary sense as a process of sharing meaning [43]; [30] a transactional process, or intentional use of symbols [17]; [43] to achieve common and specified objective between communicators is not rationally conclusive. Communicating financial information is complex not involving only immediate and known stakeholders but other unknown and potential investors and interested persons yet to surface. Communicating financial information should be consummated in proactive marketing emblem. It should go beyond just a reactive style marketing communication enforcing rules [81] which give way to noise or counterproductive.

Managers should not limit the essence of communicating financial information as soft, separate and an event or be as a linear and a one-step model [39]. Communicating financial information to potential investors to make informed decision should be addressed in holistic approach [95] with management taking centre stage. For rationality to be addressed, financial information communication driven by market orientation proactively [95] is advocated to improve investment decision making. Communication as an aspect of the proactive model has been observed as not seriously taken care of and therefore causing systems failure [96]. To [96] the concept of communication provides a plausible basis for integrating the engineering and cultural theory approaches to risk. Rationality of financial information communication should be preceded by Strategic pro-activeness [7], [44]; [95], keys to successful market orientation and enhancement of performance.

Research efforts on the relationship between market orientation and business performance has shown some positive relationship [5]; [6]; [39]; [44]. It is important for the business to know the environment in which it is operating to direct and achieve its objectives appropriately and strategically that should influence financial information presentation and communication logically and scientifically for rational investment decision. Strategic pro-activeness, according to [44] impels continuous search for new opportunities and initiating innovative projects and programmes to capitalize on such opportunities [68]; [23]; [67]. The alliance within the organization and with the focus on users in a proactive strategy would avoid investment crisis.

In the internal communication of management information individual members of the organization through strategic alliance integrate free-flow of information and also between the firm and external stakeholders. The strategic alliance integration complements mutual understanding, cooperation and bi-directional communication to limit the incidence of noise, distortions and emotional biases to achieve success in the firm's performance.

IV. BEHAVIOURAL FINANCE, A CREDIBLE ALTERNATE TO CLASSICAL THEORIES?

This section looks at behavioural finance as an alternate concept questioning traditional financial theories in investment decision. In complex situations saddled with high volume of unclassified information, the capacity of the human brain/mind to analyse and select the relevant information for informed decision is short changed for shortcuts (heuristic decision-making methods) [18]; [42]; [40]; [41]; [35]; [28]. Behavioural Finance of recent in financial and investment decisions matters establishes behavioural principles that come mainly from psychology, sociology and anthropology [19].

The quest for alternate strategies, as against traditional financial theories, to explain and guide investors in choosing their investment portfolio in the midst of risk and uncertainty of investors' interest brought in behavioural finance [87]. 'Market is subject to wants of optimism and pessimistic sentiments, which are unreasoning and yet in a sense legitimate where no solid basis exists for a sound calculation.' 'It is our innate urge to activity which makes the wheels go round, our rational selves choosing between the alternatives are a best we are able, calculating where we can, but often falling back for our motive on whim or sentiment or chance' [50]; quoted in [9]. This quote sums up a key issue of human behaviour in environments of uncertainties, insufficient and lack of relevant information to make decisions and choices. It will be a fallacy then to assume that the human mind on its own can make a conclusive judgement of what opt to be and not to be in investment decisions. The mind cannot create and generates its own information but make use of information which source, content and intentions can beat or make a perfect mark.

Behavioural Finance as championed by [50] and other authorities posited that investors are acting on the basis of emotional and instinctive drivers not necessarily on optimizing and rational. Reference [92] worked on rational choice behaviour; [94] investigated and emphasized the wrong perception of risk by individuals; [52] on psychological research on human judgement and decision theory in condition of uncertainty; [74]; [75] conducted critical analysis of expected utility and developed cognitive errors and preferences and choice construction under uncertainty; [89] studied on volatility of the equity market and events inconsistent with laws of traditional finance; Fisher Black covered by [26] posited investors as too conservative and [88] established that investors sell too soon when prices rise and hold on too long when securities price move downward.

Behavioural finance based on two building blocks, [12], [79], has demonstrated the existence of a series of systematic strategies that people use for information management in decision-making purposes to challenge theories like efficient market hypothesis, random walk, optimal choices of utility and reward. These have established some inconsistencies [46].

The psychology of the decision has come with it evidence about the difficulty of people to manage uncertain complex structured decision making on investment portfolio. Psychologically when the number and frequency of information grows, the brain attempts shortcuts, to reduce the data processing time in order to take a decision [19]. Reference [19] observed that developments in world financial markets have revealed that the assumptions of rationality of investors and the assumption of market efficiency are unrealistic, since they cannot describe the actual behaviour of individuals in front of the risk.

Literature is revealing the capacity of the human mind to influence behaviour when it comes to investment decision dependent on available information, prevailing circumstances and environment with no respecter to theories. Reference [89]; [107] has proposed substantial literature with the aim of clearing doubts about efficient market hypothesis. Antidotes to the irregularities in the investing patterns of the investors have been addressed with the help of behavioural finance which should not be seen as conclusive. Reference [91] extended the theories that further contradict the efficiency of the stock market. They stressed that the nature of the investments and the participants that trade or invest in the market are the driving factors of the efficiency of the markets. Reference [61] identifies the irrationality in the human behaviour in the form of biases and compares the traditional and modern finance theories with the behavioural finance theories. Reference [59] views behavioural finance as not a replacement to classical finance theories, but as means to understand the irrational investor behaviour and reasons for sudden rise and fall in the market.

Modern and classical portfolio theories were used to address uncertainties in the security market, to help investor quantify their choices using mean and variance of the returns as tradeoff between risk and returns. The theories assume the market to be efficient and investors to be rational [107]. The theories include; the expected utility theory [14] addressing the choice among the alternatives with uncertain outcomes to attain tradeoff between risk and return; reference [63] proposed optimal portfolio that explains diversification to reduce risk; reference [103]; [106]; [58]; [70] proposed capital asset pricing model to ascertain the relationship between the systematic risk and expected return of an asset. The perfect market conditions do not always prevail in the real stock markets. To overcome this problem came about behavioural finance that explains the behavioural changes in the investors that deviate them from the rational decision-making [107]. Reference [107] in investigating behavioural biases in investment decision reviewed 123 different studies using primary and secondary data, carried on by over 190 different authors in about 14

countries. They identified 17 different biases and their results revealed the biases with few solutions given. Reference [73] suggested improvement in the type, form and mode of communication of information of financial products given to the investors. Reference [24] indicated how prices are formed, in a model on how investor behaviour can help to analyse corporate governance to minimize the effect of the cognitive biases. In a proposed framework [8] presented bases to help remove the biases from the investor decision-making process to framing, and check on the herd behaviour of fund managers. Mathematical theory was used to compare the value of human judgments with the investment returns. Reference [60] explains the implication of agent-based modelling to understand the behaviour of individual investor. Reference [78] sought to help to avoid the problems in decision-making and to avoid the issue of biases. Reference [102] found the six success factors that help to improve the outlook of the entrepreneurs toward the entrepreneurial actions. These findings will help to take steps toward improving the actions that will generate the spirit of entrepreneurship. Reference [47] explain financial innovation in the form of a regular and levered exchange-traded fund (ETF), suggesting that investors who want the short-term gains should go for levered ETF, while those who are interested in diversification and maintaining liquidity should choose for regular ETF. Greater information asymmetry gives rise to more forecast errors. The effect of uncertainty in information is increased on the happening of some bad event. The work of [107] clearly supports the need of relevant information in investment decision. Information asymmetry or uncertainty about outcomes of investment decision demands from managers and agents the utmost responsibility to ensure the provision and communication of information in a rational mode for rational decision.

When the issues on information and role of managers and agents are dealt with behavioural theories may cease to be a reality. Reference [48] complement that behavioural finance is not any specific theory, however, it is good to understand the various anomalies to help form a portfolio and explain the psychological traits of the investor. The profit maximization and attaining rational behaviour as an objective is not complete till the investor understands the psychological biases inherent in the decision-making. The behavioural finance should complement traditional finance to help better understand the phenomena of the investor choices.

The various reasons for the sudden and untimely changes in the stock market and pricing of securities as explained in behavioural finance, contradicts both the theory of rational investors and efficiency of the markets. Rationality should not be seen as perfection and an event to be wished of. It should be the diligence to be observed in the investment decision processes as a measure to reduce the incidence of risk and loss associated with investment because of uncertainties and unpredictability of nature in unlimited time period into the future. There are behavioural antecedents in the investment processes requiring judgment at each stage before the final decision to purchase is made. Behavioural finance creates an

impression as if the final decision to purchase an investment is an event on its own and rationality limited to that stage and should be blamable for any shortcomings. Behavioural finance cannot be a theory on its own but should work hand in hand with other theories to reduce information asymmetry.

V. DISTORTIONS IN INVESTMENT DECISION

We have established that investment decision making is a process and should rely on rational information and communication of financial information as against behavioural finance that relies on cognitive psychology. Anything short of rational financial information and communication creates noise in the investment decision process. This section looks at the distortions, cognitive and emotional biases that have been the bases for the advocate of behavioural finance. There have been heuristic biases distortions related to the size of heuristic strategies as observed by [53].

The distortions, cognition and or emotional (biases) [52] determine;

- i. error in individual investment decision leading to insufficient return or excessive risk exposure
- ii. collective biases aggregate behaviour exceeds a certain critical level creates a rapid contagion effect
- iii. generic market inefficiencies such as wrong prices or anomalies in return between different activities investment period

Reference [107] studied on behavioural biases and identified 17 different types of biases. Some of the heuristic behaviour by different authors as summed up in [12]; [19] are considered below;

A. Over Confidence

This behaviour deals with attitudes of over estimation of investors own abilities [51]; [10]; [77]; [26]. It is a cognitive bias in which people have unwarranted faith in their intuitive reasoning, judgments and cognitive abilities Overconfident people become too confident about their skills and knowledge while underestimating the various risk associated with the investment [79]. Investors overreact to the private information signals while ignoring the publicly available information [25]. To [10] overconfident investors may trade even when their expected gains are not sufficient to offset the transaction costs. Reference [10] collected data of 78,000 households for a period from 1991 to 1996 from a large discount brokerage house in the USA. Their results show that gross returns (before accounting the transaction cost) earned by the households were normal, while net returns were very poor. The results are empirically consistent with [99] [37].

Furthermore, in a study, [11] analysed the common stock investment of men and women by using a data set of 35,000 households from a large discount brokerage house. They

proposed that men are more overconfident and trade excessively than women as observed by [79] in India.

measurement, i.e. an overreaction is as likely as an under reaction.

B. Anchoring Heuristic/Confirmation bias

This is the tendency to cling to the original figures and hardly change their initial ideas on the basis of new data [12]. Confirmation bias is attitude of people with preconceived impression of something and they rely on this information. It makes them adjust any future information to suit their opinion. This results in irrational decisions on the part of the investors as they get skewed toward the entrenched position against any other possible information or position.

C. Representativeness and Availability

Representativeness shows how economic agents tend to make their choices on the bases of stereotypes [104]. It means assessing the characteristics of an event/object and considering them similar to other events/objects. This makes them to consider the event/object more likely to happen which may or may not happen [88]. Availability- Phenomenon in which decision making is influenced by the ease with which examples and association come to mind to the individual [54].

D. Loss aversion/House money effect

The asymmetry of individual behaviour in the treatment of loses compared to gains under conditions of uncertainty, panic and fear of losing monetary value [104]. To [15], it occurs because people react differently to assured losses and assured profits. When they are faced with sure profits then they do not want to take any risk, while if there are any chances of losses, then they are ready to take more risks. This means they value the certainty of losses more than the uncertainty of losses. Reference [79] explains loss aversion in a similar way as house money effect. It means that when gamblers are making profits then they become less loss-averse and more willing to take the risk. So, the investors who are making huge profits are willing to take more risk and vice versa.

E. Under reaction and over reaction

Under reaction is the phenomenon in which the prices of securities under react to the new information in the short term or more slowly and poorly to the news [9]; [26]; [31]. Under reaction may result from slow diffusion of news, investors' conservatism and anchoring biases [12], and the disposition to sell; winners sell too early and hold on to losers too long [54]

Overreaction due to stable patterns of news may result from positive feedback trading investors' overconfidence and self-attribution confirmation biases [23], representativeness heuristics [54], [12], and herding behaviour. However, [31] argues that the regularities tend to vanish with changes in

F. Disposition effect/ Hindsight bias

Disposition is the concern of how investors characteristics, believes and attitudes influence and dictate their investment behaviour and decision. Disposition effect is a phenomenon in which investors' exhibit a tendency to realise the gains, while reluctant to realise losses [88]. Reference [88] developed a framework based on different elements (i.e. mental accounting, regret aversion, self-control and tax consideration) and analysed the disposition effect. Reference [53] prospect theory states that people become more risk-averse after experiencing gains while risk seekers after suffering from the losses. A number of research studies have supported the existence of disposition effect [12]; [85]; [37]; [49]). [12] Analysed the mutual fund's purchase and sale decision of investors. They found the evidence that investors sell those funds which realised positive returns and are reluctant to sell the loss-making funds.

Reference [85] documented that individual investors are more prone to disposition effect than the professional investors. Reference [27] analysed the difference in the disposition effect among individuals and reported that nonprofessional and low-income group investors exhibit more disposition effect than others. Investors are prone to disposition effect and affected by the trading conditions. There is a negative correlation between the disposition effect and returns, volatility and trading volume [38]. Reference [33] in [79] also describes hindsight biases, similar to disposition effect, which occurs when an investor believes that the happening of some event can be predicted reasonably. But this belief can be dangerous as the investor can form cause and effect relationship between the two events even when the relationship is not associated at all and thus results in irrational decisions.

G. Herding

There are situations where a person on his own cannot decide and take any action on his own unless he is motivated and moved by the footprints and actions of others. This kind of behaviour leads to herding. Herding is the tendency of the individual imitating the judgements (rational and irrational) of others [68]. Herding behaviour of investors is the primary cause of bubbles in finance [79]. Reference [79] suggested that individual investors are noise traders and trade for the liquidity than the institutional investors. There is an interdependent relation between the information availability and the herd behaviour. When the information is uncertain, investors are more prone to imitate the decisions of others or group [79].

However, [79] found that in the trade of large stocks, the US pension fund managers are less influenced to herd behaviour and have no impact on the stock prices. Reference [36] found

weak evidence of herd behaviour for US mutual funds. In [68], [36] in [79] found less evidence of herding for the average stocks, while high level of herding for the small and growth-oriented stocks is possible. Reference [79] proposed that trading behaviour of institutional investors is related to the position of the previous trading which is a stimulus for herding. Further, they also found that in large stocks, herding behaviour weakens by time. [79] observed institutional investors' herding affects the stock prices more than individuals' herding in the USA.

H. Influence of demographic variables on rational investment and behavioural biases

Human beings are born to different geographical areas and environmental conditions with different cultural practices which may shape their thinking and other dispositions. In their development from infancy to adulthood, either as males or females they interact with other people from other cultures and economic environments that can influence their economic and investment activities. In addition to the behavioural factors, investors' demographic characteristics have significant effect on the rational investment and behavioural biases of investors [79].

In [79] studies came up with findings and observations as to demographic characteristics influence investment. Reference [57] analysed that individual investors follow the rational decision-making process to select their investment products and also prone to various behavioural biases. Reference [79] found that family composition, biological make-up, psychological factors and lifestyle of individual investors influence the investment rationality. Reference [108] indicated that both age and education do not have any significant impact on overconfidence bias. Moreover, there is a significant association between investment experience and overconfidence bias. Reference [16] found that men are more confident than the women. With respect to the relationship between demographic characteristics and disposition effect (Da Costa et al., 2008) in [79] identified that males are more prone to disposition effect than females.

Reference [27] found that individuals employed in professional occupations and high-income earners have lower disposition effect. With respect to the relationship between demographic characteristics and herding bias, [57] found that females are more involved in herding behaviour than males. Moreover, he identified that young investors are more prone to herd behaviour than older ones.

It should be noted that human beings behave, react and respond to a given, immediate and available stimuli when exposed to events of activities. Investment decisions are made influenced by available information and how communicated. The information should be relevant, reliable and sufficient. Investment decision should be influenced by relevant, reliable and sufficient financial and investment information which should be appropriately communicated. In the absence of this

investors will react and respond to information made available to them which creates distortions in rational investment decision.

These behavioural distortions may be prominent dependent on available financial and investment information. In the absence of relevant, reliable and sufficient financial and investment information, but unclassified and other irrelevant information then the investment behaviour and decision could be distorted. However, if there is relevant, reliable and sufficient financial and investment information and the investor influenced by other issues to achieve a known or stated objective then we cannot strictly say there is distortion in the decision but could be a cultural satisfaction. Behavioural finance cannot be strictly an alternate theory to take the place of classical models.

VI. CONCLUSION AND RECOMMENDATIONS

The paper considered Behavioural Finance as a possible new concept, a phenomenon championing cognitive psychology and a challenge, or a catalyst explaining the rationality of investment decisions through classical/traditional financial theories. Some proponents are of the view that investors may react irrationally to information in making investment decision, that is, their cognitive and psychological capability to explain and perceive information is thwarted [101]. For this limitation investors are unable to take advantage of arbitrage opportunity in the market to make profit from market dislocations [79].

Prospect theory is prominent in environments of uncertainty and limited or complex information where some psychological factors influence investors to be selective in decision-making and deviates them from rationality [92]; [104]; [50]. Indeed, there are some obstacles and challenges as revealed by OECD [100] [9921], which are biases and distortions in communication, they can't be the drivers and basis to establish a concept. Behavioural finance in its current state is establishing investment decision as an event characterized by emotions and uncertainties through cognitive psychology. It is therefore not a process to be guided by principles of rational thinking and logical framework.

Marshalling the traditional and classical theories and models against the behavioural finance theory it could be deduce that the traditional and classical models assume some form of linearity in handling information or data to achieve an outcome of simple linearity of cause and effect. In complex situations saddled with high volume of unclassified information, the traditional models become adjunct to the decision making and not a perfect complete phenomenon to achieve a desired objective. Behavioural finance is labelling this shortfall as limitation in the capacity of the human brain/mind to analyse and select the relevant information for informed decision, a short changed for shortcuts (heuristic decision-making methods) [18]; [42]; [40]; [41]; [35]; [28]).

Behavioural Finance coming from psychology, sociology and anthropology [20] is capitalising on this deficiency of information complexity as an alternate strategy to explain and guide investors in choosing their investment portfolio [87]. Behavioural Finance should be complementing classical models to achieve some perfection and completeness in the investment decision process and not as an alternate theory seeing decision making as an event [76]. The point of lapse in the traditional theories is where the investor is supported and influenced by his other characteristics and disposition like the culture and social settings, demographics and psychological strength to make a decision.

Investors' behaviour in investment decision is greatly influenced by available information at the market place and its relevance. If the information is not right for the analysis there is bound to be inconsistencies in applying the financial models like the Efficient Market Hypothesis (EMH). The anomalies and inconsistencies may be due to the information made available in the market as to its relevance, adequacy and reliability to the decision making or research analysis.

The anomalies and inconsistencies are not the making of classical theories to call for behavioural finance as a concept instead of complementing it.

In environments with little information (asymmetry), investor decisions may be on emotional and psychologically influenced according to the investors socio-cultural impinges [104] as in herding [79]. Behavioural finance portrayed as a full-fledged field that has principles and theories backed up with strong experiments conducted with the actual investors is deviating from the reality. The biases are assumed to be portable to all geographical and cultural environments. It assumes investors to be a body with similar interest and identity, but there are different investors with individual differences, institutional investors, and professional investors all with different backgrounds, interest and objectives. What may be complex in one environment may not be so across barriers and among investors. Behavioural finance cannot therefore be a concept with cogent principles to satisfy common needs of all. It has no definite source of information and logical steps of processing information except the cognitive and psychological influence which cannot work in isolation but on available information.

Investment decision making has a process of identification and collection of hard data and the soft processing to make a choice [76]. The identification and collection of hard data which is about the financial information of the firm relevant for the investment decision making is acknowledged to have been rationally prepared to all standards in logical, regulatory and other disclosure requirements. The cognitive and the psychological phase of the decision process is the analytical phenomenon of digesting, assimilation and the interpretation of the hard data derived at the first phase.

The rationality or irrationality and any psychological biases and distortions can be established and concluded upon only when a comparison is made between expected outcome and actual outcome of performance from the firm's economic activities in a given time period. The possible misstatements, ambiguity and distortions in the information available for the decision process inform and influence the outcome. This is synonymous with the information technology jargon that "garbage in garbage out". It is important to acknowledge that information made available in the financial market by managers of the firm meet all standards, audited and satisfy legislation and regulatory requirements.

In the absence of information meeting the credibility standard, the managers of the firm will always take investors for granted. There cannot be behaviour without a stimulus. Behavioural finance cannot be without underlying motivating factors or stimulus. Financial information and its communication motivate investors' behaviour according to their understanding, interpretation and disposition [88]; [53] [10]; [85]; [105]; [37]; [49]; [38]. Behavioural Finance can only hold when there is information to be worked on. The understanding and interpretation depend on the skills and mental capacity in analysing the information and communication style. Reference [73] suggested that a substantial improvement should be made in the type, form and mode of communication of information of financial products given to the investors. This can result in making consumers aware of the pros and cons of investment decisions and subsequent alleviation of these biases in the investment decision-making.

The brain in processing the information act as filters, sieve the information into varying elements that feed into the decision making. The brain cannot behave in isolation unless some form of information is produced to work on. The human mind acts as filters with each investor and his filters capacity [92]; [19].

Distortions and biases from decision may come in two ways;

- a. Distortion of choice of information from filters. There are alternate sources, types and nature of information
- b. Distortion/biases of conclusion as to accept or reject an outcome of the analyses.

The distortion on selection of information that is selecting one source, type, form or nature as against better alternate is one phase. Type two is on rejection of a conclusion against a better one and accepting a conclusion when it is not appropriate. An investor may have the option to use working capital ratios or market ratios in a given scenario. The figures regarding the working capital ratios may be manipulated and window dressed as against the market ratios. The investor selects the working capital ratios against the market ratios, a distortion in selection of information have occurred in the filtering process. On the other hand, the investor made the right choice by taking the market ratios. However, comparing the ratios with firms in other industries which are manipulated the investor rejects the better firm based on the conclusion from the analyses. There is a rejection of right conclusion.

Conclusion drawn from set of identical and similar information may be different dependent on the investors understanding and interpretation of the information. So long as there are different investors with different background, disposition and personal attributes, from different environment and cultures different conclusions and decision could be made. This then will create behavioural biases making investment decision irrational. This does not create a new concept.

The human mind has biological and physiological limits that force it to simplify the surrounding reality through an approximation of the information obtained or the use of heuristics and cognitive filters [19]. Managers and their accomplices as agents in corporate governance work on the psychology of their audience including investors. Managers in corporate governance present financial information and communicate information with perceived intentions and objectives knowing exactly what they want [1]. The distortions and biases coming out from investment decisions are the noise planted by management. Any investment and corporate failure should be the responsibility of managers and their accomplices and not on the innocent investor. When investment fails corporate governance has failed. The failure is not occasioned by the investor or the classical theory to call for a behavioural finance concept. Management should accept blame for lapses in the decision process with no recourse for behavioural finance as a concept.

Recommendations

Laws on corporate governance should be strengthened with specified tenure and responsibilities and obligations of agents spelt out in the event of corporate failure.

Regulatory institutions that are to apply the rules and regulations on corporate governance should be resourced with all the necessary skills tools and equipment in current environment of technology, sophistication and complexities to carry out their mandate. Regulators should have questions to answer in cases of investment and corporate failure when they fail to exercise good care and diligence.

Managers in corporate governance should have their perks and allowances as an appropriation of net income and not as a charge in profit or loss determination. The agents should be held responsible for corporate failure and surcharged when found culpable.

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