

# From Psychology to Mood Disorder in Finance

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## *Abstract*

The debates on market anomalies versus market efficiency have been extensively investigated for the last 2 decades. Market efficiency scholars argue the anomalies are only methodology errors. In other hand, the contenders argue market is inefficient. The existence of market anomalies attacked the rational behaviour assumption that used in market efficiency. Behavioral finance is the alternative to answer this issue. Scholars propose psychology approach, which are: Expectation, Heuristic, Social Influence, Neuropsychology, Self-Control, Mental, and Regret, to answer the problems.

This research objective is to explore the dimension of psychology that can explain market anomalies by qualitative approach. This research constructed 7 psychology dimensions on finance. This 7 dimension on finance is robust analysis tool to examine the market anomalies.

The methodology of this research is qualitative approach. It is based on secondary data, including compilation of research and article of the research in the finance and mimicking the various books on behavioural finance. It is adequately substantiates the claim made in this paper to portray the issues on behavioural finance. The methods are constructive, it proves that moods have important role on influencing market anomalies. Grounded theory is explored based on the Psychology Finance Heptagon.

The results depict the Psychology Finance Heptagon is reasonable. It addresses that Moods have influenced 7 important dimensions in Psychology which are: Expectation, Heuristic, Social Influence, Neuropsychology, Self-Control, Mental, and Regret. Further, as documented in hundreds of market anomalies empirical suggestions and also the interconnection between psychology science and finance, it can be grounded as theory that these 7 dimensions are the reasons beyond market anomalies. These 7 dimensions is also the answer of the irrational behaviour of market participants. It is also surmising that these 7 dimensions can answer the issue of irrational behaviour in Finance, meaning it helps conventional finance to explain the market anomalies.

Further research should discuss the link between moods, 7 dimensions, and market anomalies in quantitative approach. It is also suggested to breakdown these 7 dimensions based on race, gender, histo-cultural, and geo-demographic. This research is limit on the bias result of qualitative approach.

**Keywords:** *Psychology, Moods, Market Anomalies, Qualitative Perspective*

## **Introduction**

Conventional Finance is defined as the art and technique on finance managerial. Finance can also define as the study that coping the individual, institution, government, and business acquire, spend, and manage financial assets (Melicher and Norton, 2003). Finance scholars, for instance Danthine and Donaldson (2001), stress the conventional finance on the entities rational behaviour. This rational behaviour is the body of knowledge for many main stream finance such as Markowitz's portfolio theory, Mondigliani and Miller's arbitrage theory, Sharpe's Capital Asset Pricing, Fama's Efficient Market Hypothesis, and Black, Scholes, and Merton's Option Pricing Theory (Statman, 1999). These mentioned theories have lay on the most important assumption which is Rational Behavior Assumptions (Thaler, 1990; DeBondt and Thaler, 1995).

Further, modern finance theory is assumed to be rational in two ways: (1) the agent decision making confirms the axiom of expected utility theory, and (2) the agent decision making does not have bias forecasting (Thaler, 1990). Nicholson (2007) delivers that expected utility theory is the behaviour of agents is having concave utility function and risk averse, meaning that the asset pricing is a set by investor's rationality. If the asset prices attained the rational equilibrium, this would be confirming the market efficiency theory (Fama, 1970). Therefore, the rational based market equilibrium is achieved.

One of the branches of modern finance is EMH. After observing the random walk movement in share prices, Fama (1970) introduce the EMH by classifying the random walk of the informational efficiency into three categories: weak form efficiency, semi-strong efficiency, and strong efficiency. He stated the shares returns confirm to the leptokurtic distribution. In modern finance theory, an efficient market is not only created by the adjustment acceleration to the new information but also how the market fully reflected of all available information (Fama, 1991). It means asset prices incorporate all information and estimates the true value through the times. This incorporation confirms the rational behavior assumption. Warneryard (2001) addresses that EMH is the main economic and financial theory in regard what happens in the market. It indicates the importance of EMH in modern finance.

However, Shiller (1998) argued that market is not efficient due to investor will optimize expected utility precisely and process all information. It will create the excess of volatility and volume. Further, Shiller described that the rational prices had excess volatility due to unpredictable news. Chorafas (1995) addressed market efficiency and its fairly priced is utopian case. He discussed further that information availability and its stability random walk implies a lack of sensitivity of emotional forces such as lust, greed, and fear. This is aligned with Tvede (2005) who argued market efficiency should overlook under behavioural approach.

Hubermann (2000) addressed that EMH as the proxy of modern finance has two important mistakes in behavioural approach, which are: (1) investors act in an unbiased fashion to optimize their portfolio, and (2) investors always act in their own self-interest. Empirical results showed that stock prices are still valued vary in the market. The dispersion and deviant of the market are called by anomaly. The anomalous condition in the market, which is well known as market anomalies, is the evidence that rational behaviour assumption in finance not longer be hold. Table 1 depicts how the prediction of EMH is ruptured by the empirical evidence of anomalies.

**Table 1 EMH Prediction and Its Contrarian**

EMH Prediction	Contrary Empirical Evidence
Asset Prices Move as random walk overtime	Month of Year, Week of Month, Day of Week, Hour of Day, Long Run Return Mispricing, Bid Ask Spread, Mean reverting
New Information is rapidly incorporated into asset prices, and currently available information cannot be used to predict future excess returns	Information cost, Momentum, Post Earning Announcement, Foreign Exchange, Market microstructure
Fund Managers cannot systematically outperform the market	Close end mutual fund, winners curse, growth-value, Equity Risk Premium, Market microstructure
Asset prices remain at level consistent with economic fundamental that is, they are not aligned	Law of one prices, utility maximization, Size effect, Accrual Economics

**The Debate on Rational Behaviour Assumption: Financial Market Anomalies Perspective**

The debates between market anomalies scholars and market efficiency scholars have been extensively investigated for the last 2 decades. Market efficiency scholars argue the anomalies are only methodology errors. Fama (1990) surmised that market efficiency contenders are only showing the erroneous of econometrics models. Meanwhile, in

other hand, the contenders argue that market efficiency has failed to explain the existence of market anomalies. As addressed in table 1, the postulates of market efficiency are questionable as there are anomalies. Market efficiency assumption, rational behaviour, has been attacked to rupture the postulates. However, Behavioural approach is popping-up as alternative way to examine the market anomalies existence in financial markets.

This literature study wants to introduce the main behavioural approach in finance to explain the market anomalies. Based on documenting, the market anomalies cannot be answered by using theories that lay on expected utility/rational behaviour assumption. As an alternative, behavioural finance, psychology finance precisely, is introduced to examine and explore the market anomalies.

## **Psychology Finance**

Behavioural Finance is the study of the influence of psychology on the behaviour of financial practitioners and the subsequent effect on markets (Sewell, 2005). It emphasizes on the application of psychological principles on financial decision making (Olsen, 1998). Behavioural finance closely combines individual behaviour and market phenomena and uses knowledge taken from both psychological field and financial theory (Fromlet, 2001).

Historically, economics and psychology are closed each others, such as: Adam Smith, in *The Theory of Moral Sentiments*, and Jeremy Bentham extensively wrote psychology of utility (Cameron, 1997). Psychology has also broadly explicated the development of economics such as Francis Edgeworth in *Marginal Productivity Theory*, Vilfredo Pareto in *Pareto Theorem*, Irving Fisher in *The nature of capital and income*, and lastly the most well known J.M Keynes in the neoliberals theorem. The psychology approach in economics resurgences marked by Gabriel Tarde on economic psychology with its herd behaviour and crowd effect, Laszlo Garai on economics human needs, and Alice M Isen on moods effect on economic behaviour.

Finance has to consider the behaviour of market participation (Warneryard, 2001). It describes the Bayesian rational probability violation in the financial market. This postulate is also supported by Warneryard (2001) and Statman (2002). The intersection between psychology and finance is more known as Psychology Finance.

Shefrin (2002) defines Psychology Finance as the study that how desires, goals, and motivation affect financial decision. It is including the factors in psychology to finance decision making. It means the psychology of market participant has important role in market behaviour. According to behaviourism, moods are part of life: someday we feel marvelous, some day we feel miserable (Krebs and Blackman, 1990). Moods disorder can affect the decision making (Isen et al, 1968; Tvede, 2000).

Based on documenting, this study proposes moods as the key drivers in human psychology. Mood has influenced the economic behavior (Lo and Repin, 2001; Rick and Loewenstein, 2004). Isen et al (1978) found that people tend to do shopping when they feel happy and conversely, they tend less to do shopping when they are not in a good mood. It is confirmed by Gardner (1985) who showed moods played important role in retail consumer behaviour.

Therefore, based on documenting, this study proposes the Mood Induced Market Anomaly Heptagon, which is the main subject in this study. The mood induced market anomaly will be studied and clustered in 7 dimensions, which are:

1. Expectation;
2. Heuristics;
3. Social Influences;
4. Neuropsychology;
5. Regret;
6. Mental;
7. Self control.

## **Research Methodology**

The methodology of this research is qualitative approach. It is based on secondary data, including compilation of research and article of the research in the finance and mimicking the various books on behavioural finance. The research approach is exploratory in nature. It is adequately substantiates the claim made in this paper to portray the issues on behavioural finance. As analysis tool, we use documenting method to strengthen the analysis. The

methods are constructive, we prove that moods have important role on influencing market anomalies. Grounded theory is explored based on the Psychology Finance Heptagon.

Diagram 1. Mood Induced Anomalies Heptagon



### 3. Discussion

Over the decades, the debate between EMH and Market anomalies does not result anything. Each side has its own justification. However, there is alternative to explain the anomalous condition in market which-so-called by Behavioural Finance.

This behavioural finance is enriched by the existence of psychology factors to explain anomalous condition in market. The Mood Induced Market Anomalies heptagon is proposed to give clarity on the market anomaly explanation by using behavioral approach. This section will deliver how moods can influences the decision making in 7 dimensions and resulting market anomalies. As earlier mentioned, the 7 dimension that affected by affection of moods is Expectation, Heuristics, Social Influences, Neuropsychology, Regret, Mental, Self control.

#### 3.1 Moods, Expectation, and Market Anomalies

Psychology science has already linked the moods and expectation since 1970s. Psychology Science discusses how moods influence human expectation. Persson and Sjoberg (1985) conducted research about the relationship between expectation and major moods dimensions. They find that tense and unpleasant mood has relationship with negative expectation. The address that mood also correlated with general mood level, general optimism, and extraneous factors that induced expectation. They suggested that level of moods has influenced the human expectation. Salovey and Birnbaum (1989) have research on expectation of health cognition of patient. They found mood of happy, sad, and neutral has influence on the expectation in health relevant cognition. Further, Norem and Illingworth (2003) conclude that moods have influenced the performance and expectation among defensive pessimist and offensive optimist. Further, Wilhelm et al (2005) also concluded that mood has influenced the expectation in depression treatment.

Keynes introduced the role of expectation in economics in 1936 (Warneryard, 2001). He referred the economic behavior expectation in economic behavior as animal spirit. Psychology finance defines expectation in economics as an image of a future event or relationship and may resemble scenario, either contingently or intentionally (Warneryard, 2001).

From behavioral point of view, market participant financial decisions depend on subjective expectation. In psychology finance, the expectation behavior can be influenced by mental (Murphy and Medin, 1985), contingencies prior expectation (Hoch and Deighton, 1989), perception (Warneryard, 2001), and cognitive psychology (Murphy and Medin, 1985).

The evidence of the role of expectation on finance is addressed by DeBondt (1998) on the investor sentiment and performance on price continuation or reversal (Warneryard, 2001). Other evidences of the effect of expectation in financial market are gambler's fallacy, noise trading, and dividend puzzle (Warneryard, 2001). It means there is the role of human expectation on market behavior.

### **3.2 Moods, Heuristic, and Market Anomalies**

Thesaurus defines heuristic as a process of investigation by trial and errors. Shefrin (2000) argues this trial and error process can result another errors. DeBondt and Thaler (1994), Shiller (1997), and Fuller (2000) concluded heuristic may explain the irrational of markets. It means using different heuristic can explain the problem solving.

Empirical results showed moods affect heuristic preferences. Raghunathan and Pham (1999) addressed two important findings, which are: (1) anxiety and sadness that caused by moods will affect human preferences in choices; and (2) mood congruency where negative mood make people's perception, thought, and judgment distorted toward greater negativity.

Heuristic in finance can be divided into 5 dimensions, which are representative bias, saliency, herd behavior, overconfidence, and anchoring.

**Representative Heuristics.** Representative heuristic is a proposal wherein people judge the probability of hypothesis by considering the availability of information as opposed to using probability calculation. Representative heuristic was first introduced by Tversky and Kahnemann (1974). This theory posits that intuitive prediction or judgments under uncertainty are often based on the relation of similarity or representative between evidences and possible outcomes. By this theory, investors are overconfident about the current information on equities and pay less attention to the past information or extrapolate too readily from small sample, thus leading to belief revisions that are too dramatic (Tversky and Kahneman, 1971, 1973). It means that representative heuristics leads people to overestimate the like hood and the frequency of events that come easily to mind because they are more readily available in memory. Representative can cause investors to overreact to new information (Fuller, 2000).

**Saliency.** People lean to overestimate the probability of such event occurring in the future if they have recently observed such an event for infrequent event (Fuller, 2000). This probability overestimation can cause the information overreaction. Saliency can explain the size anomaly or the value-growth anomaly (Tvede, 2000). Saliency is more related to the perception of investor that stimulate the emotion and result an erroneous prediction that caused by overestimation.

**Herd Behavior.** Herding describes how investors act without planned strategy. Herding investor only follows other investor. Herd investors must be sentient of and be influenced by others' action (Lux, 1995). Instinctively, acting irrationally, imperfect information, compensation structure, and reputation consideration are the drivers of herd investor (Bikhchandani and Sharma, 2000). For instance, professional agreed that price levels were too high. In their opinion, the market is more likely to go down rather than up. However, few of investors sold their equities at that time. If the market did continue to go up, they were afraid of being perceived as lone fools for missing out on the ride. Moreover, herd behavior can create bubble in the market (Lux, 1995). Grinblatt, Titman, and Wermers (1995) address that investing strategy which followed by herd effect can cause market bubbles. Shiller (2000) addressed people can instead of being rational not to waste their time and effort in exercising their choices about the market and thus choosing not to exert any independent impact on the market. This behavior can lead the market to be over or under pricing.

**Overconfidence.** People tend to overconfident regarding their ability and their knowledge (Fuller, 2000). In management science, March and Shapira (1987) found that manager tends to overestimate the success probability when they think of themselves as experts. Overconfidence is the most used as the most robust finding in explaining market anomalies (Johnson et al, 2000). Overconfidence can give misleading such as risk underestimation the control exaggeration, volume and volatility excessive, and the noise market speculation. DeBondt and Thaler

(1985) stated the anomaly of loser stock outperform winner stock may be caused by the overconfidence behavior. Random and noise in the market may be caused by the overconfidence of ability and knowledge of investors (Ross, 1987), and (Kahneman and Tversky, 1979). Barberis et al (1998) found that overconfidence results two irregularities, which are: (1) underreaction of stock prices to the news of earnings announcement, and (2) overreaction of stock prices to series of good news or bad news. This can cause another anomalous condition in the market. This speculative behavior under overconfidence was found as one of the reason of market crash (Shiller, 1987).

**Anchoring.** Psychology science has addressed that when people make quantitative estimation, their calculation may be heavily influenced by the previous value of items (Fuller, 2000). Anchoring refers to the process decision making that influenced by suggestion (Johnson et al, 2002). For examples, investor tends to have their own reference points (anchor) regarding decision making in investment. Usually, investors take previous prices as the anchor (Johnson, 2002). Shiller (2000) addressed this anchoring process imposes the similarity of stock prices from one day to the next. This anchoring activity may explain the excess of volume and excess of volatility that addressed by Shiller (1981). Griffin and Karolyi (1998) addressed that this anchoring may explain why stock of companies that are in different industries but are headquartered in the same country tend to have similar movement than stock of companies in the same industry but are headquartered in different country. Anchoring can explain the anomaly in the market (Shiller, 1998).

### **3.3 Moods, Social Influence, and Market Anomalies**

Social influence is another major theory in psychology finance. It is more known as social psychology. There are 3 important factors in encouraging social influence which are social norms, conformity, and compliance (Cialdini and Trost, 1998). These 3 factors are key determinants in influencing people to tend similar to community trends. Lowery et al (2001) conducted research on automatic prejudice of social influence. They address that automatic racial prejudice is subject to common social influence. Hsu and Lu (2003) conclude that social influence plays role in affect circle of friend to play on-line games by using Technology Acceptance Model. It indicates that social influence has important part on influencing others. Vries (2006) also conducted research on the effect of social influence on behavior. Vries found social influence has significant influences on attitudes, self-efficacy, intention, and previous behavior on smoking behavior.

In term of psychology finance, social influence also can be used to explain several anomalies. One of the anomalies is herd behavior (Warneryard, 2001). He also pointed out Growth strategy as another evidence of social influence. Further, Warneryard (2001) explain finance social influence can be composed in many types, such as: Small-Group investor Influence, Herding, Noise Trading, Dividend Puzzle, Hot Market Issue, Bandwagon effects, and mis-valuation.

### **3.4 Moods, Neuropsychology, and Market Anomalies**

Neuropsychology is a combination of neurology science and psychology science. Neurology science is discussing about the neuron tissues in human body. Meanwhile, psychology science is discussing about the explanation beyond human behavior. In the end, scholars define neuropsychology as the explanation of human behavior by using neuron approach.

Neuropsychology in finance is more known as neurofinance. Peterson (2009) refers neurofinance to neuropsychology studies of traders, investors, and financial decision maker. Further, he argues that neurofinance can explain further beyond human psychology in finance decision making

Paul Zak (2007) defines neurofinance as a new science that analyzes financial market by applying neurotechnology to trading behaviour. Further, he explained the goals of neurofinance are (1) to improve trading result and our understating of financial market by identifying which psychological traits affect trading behavior; (2) to correlate these traits with trading success or failure, (3) to develop tools, technology, and training methods to improve trading performance.

Neurofinance scholars use neural research technologies such as Positron Emission Tomography (PET), Functional Magnetic Resonance Imaging (fMRI), Electroencephalography (EEG), and Psychophysiological Techniques (Peterson, 2009). This intersection between neuropsychology and finance become a new brand stream of finance (Peterson, 2009).

Neurofinance is believed has more robust explanation on cognitive and emotional than other behavioral approach (Peterson, 2009). Lo and Repin (2002) conducted research on psychophysiology in risk processing. They found that in certain period of market volatility cause physiological reaction. They also found that the adrenaline, stress hormones, and proteins, have been released to nervous system and emotionally results worst trading position. Lane et al (2005) found that marijuana addiction has significant influence on risk behaviour that resulting the noise trading. Lane et al (2004) also found the same result on the alcohol consumers. Spinella (2004) also discovered that the human's frontal system dysfunction has significant effects on gambling decision and delaying award. Further, Wood and Grafman (2002) found that human prefrontal cortex also influence the human decision in investing.

### **3.5 Moods, Regret, and Market Anomalies**

All individuals in their lives are subject to feeling of regret (Burks, 1946). Psychology literature has shown that mode of moods has role in level of regret. Mutler et al (2000) addressed that positive or negative feeling can reduce or increase feeling of regret. Connolly and Zeelerberg (2002) found more interesting result. They found that moods lead to level of painful of regret. They imply that positive emotion will be less painful in regret and individual will be more regret taker, vice versa.

Human tends to feel regret after having mistakes. Regret is the feeling of sadness, shame, guilty, and depression after making a choice (Krebs and Blackman, 1990). All individuals in their lives are subject to feeling of regret (Burks, 1946). Psychology science has depicted that moods mode has important role in level of regret. Mutler et al (2000) addressed that positive or negative feeling can reduce or increase feeling of regret. Connolly and Zeelerberg (2002) found more interesting result. They found that moods lead to level of painful of regret. They imply that positive emotion will be less painful in regret and individual will be more regret taker, vice versa.

Regret in finance is also can be seen as the loss of opportunity (Kahneman and Tversky, 1992). Regret theory was developed by Loomes and Sugden (1982). They defined finance regret theory as a loss between the actual payoff and the payoff that obtained if a different choice is taken. Shefrin and Statman (1985) surmise that regret theory may explained why investors defer in selling stock that have gone down in value and accelerate the stock selling that have gone up in value. It implies that investor avoids selling the decreasing value stocks in order to finalize the error they make and avoid the feeling of regret. Odean (1996) documented that investor tends to sell the increasing stock to avoid the feeling of regret when it is falling.

Regret theory is strongly related to cognitive dissonance (Kahneman and Tversky, 1992). It implies cognitive dissonance as regret is not a rational behavior. This is aligned with Festinger Theory (1957) that people tend to reduce cognitive dissonance by avoiding new information or developing twisted argument to maintain beliefs and assumption in order to reject regret feeling. The regret theory can explain the condition of noise trading and herd behavior in financial market.

### **3.6 Moods, Mental, and Market Anomalies**

Sanna (2000) addresses that psychology literature shows that moods and mental can influence each other. For instance, Markman et al (1996) show that positive moods influence the feeling of thankful not being injured. McMullen (1997) suggests mood influences mental through assimilation. Meanwhile, Sanna (1997) shows that Transpire is the factor of moods influence mental. Sanna also suggested that mental is influenced by the moods. In Sanna (1997) study, upward mental produce good mood and downward simulation produce bad moods. Sanna et al (1999) also shows that happy and sad mood influence people mental in watching film or listening music. Sanna (2000) addressed that positive moods or negative moods can influence the mental of self improvement, self protection, mood-repair, and mood-maintenance, implying that moods has important role on mental state.

Mental in finance can be seen in the mental accounting approach. It is also one of parts of Kahneman and Tversky (1979) prospect Theory. It depicts the investors' tendency in consigning particular events into different mental accounts based on superficial attributes (Shiller, 1998). The main idea of mental accounting is the tendency of decision makers to separate the different types of speculation, and applying prospect theory decision rules to each account by ignoring the possible interaction among accounts (Kahneman and Tversky, 1990). Shefrin and Statman (1985) addresses mental accounting as the explanation of readjustment of investors' references point which is asset purchase price. Behavioral finance can explain the dividend puzzle by applying the mental accounting approach (Shefrin and Statman, 1984).

### 3.7 Moods, Self-Control, and Market Anomalies

Psychology science addresses that Self Control is influenced by moods. Early study by Bross (1957) introduced of using drugs for mood changing, especially for self control issue. Classic and Cliché literature regarding moods and self control is human suicides. Coser (1976) addresses suicide is caused by losing self control regarding psychiatric problem. Noon (1978) addresses that suicide is choosing to die because of losing self control. Moreover, Gunnell and Frankel (1992) state that moods of emotional and psychiatric risk can cause human to loss control and do suicide.

Thaler and Shefrin (1981) addressed that anomalous condition in market can be begun from investors self control problems. The classic study of Glick (1957) reported that the investors' reluctance to realize losses constitutes a self control problem. Shefrin (2000) readdresses this self control issue by showing that anomalous condition is occurred because investors fear a loss of self control, where the urge for immediate gratification can drive them to overspend. It means investors also suffer from a lack of self control, which can lead to non wealth maximizing behavior. This issue was confirmed by Statman (1995) empirical result showing that dollar cost averaging is sub-optimal with respect to maximizing wealth. It can be concluded, self control can drive investors to close loss accounts even though they were clearly aware that riding losses is not rational (Fuller, 2000).

**Table 2 Type of Mood Induced and its Market Anomalies**

Type	Market Anomalies
Expectation	Gambler's fallacy, noise trading, dividend puzzle
Heuristics	Calendar effects, representative bias, accrual earnings, overconfidence, size effect, value-growth, herding, volume and Volatility, bubbles
Social Influences	Small-group, herding, noise, dividend puzzle, hot market issue, bandwagon, misvaluation
Neuropsychology	risk aversion, momentum, noise
Regret	noise, gambling fallacy, risk aversion
Mental	noise, herding, parimutuel betting, momentum
Self Control	post earning announcement, winner curse

### 3.8 From Moods to Market Anomalies

Finance scholars have attempted to investigate the relationship between moods and market anomalies since 1970s. One of the earliest studies is Isen and Simmonds (1978). They found the relationship between moods and the investor behavior in risk. They concluded there is relationship between moods and risk aversion, which latter more known as Loss Aversion. Based on Isen and Simmonds (1978), Deldin and Levin (1986) conducted research on moods and anomalies, and found the relationship between moods and risky decision making that triggers anomalous condition in the market. More current conducted research is Yuen and Lee (2002), where they surmised there is the relationship between moods, risky decision making, and market volatility.

Other scholars also found the relationship between moods and market anomalies. Merton (1986) found the relationship between moods and price reversal. DeBondt and Thaler (1987) found the relationship between moods and market anomalies. Saunders (1993) addresses that moods appear influencing January Effect, Weekend Effect, and Small firm Effect. More current research, Dowling and Lucey (2002) state moods can affect the price volatility. This finding is strengthened by Turfan and Hamarat (2004) who also found the relationship between moods and market returns. Based on these findings, it can be concluded that there is significant relationship between moods and market anomalies. It indicates the moods can trigger the occurred market anomalies; either it influences the decision making through the 7 dimensions.

### 4. Conclusion and Limitation

The existence of anomalies has massively attacked the rational behaviour assumption of conventional finance. It draws back the finance to behavioural approach. As already discussed by Adam Smith, there is moral sentiment playing role in decision making.

This study surmised that psychology factors do affect the investing decision making. It is addressed by many finance papers. This study summarize that moods is the key driver in stimulating the irrational behaviour of investors. Moods will deliver the irrational behaviour in 7 channels which are: expectation, heuristics, social influence, neuropsychology, regret, mental, and self control. These 7 constructs are the drivers in anomalous condition in the market. Based on these literature findings, this study proposes the mood induced anomalies heptagon.

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