YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF MANAGEMENT STUDIES

MBA PROGRAMME

BEHAVIORAL FACTORS ON INVESTMENT DECISION OF INVESTORS IN YANGON STOCK EXCHANGE

KYAW ZIN THAN

MBAII - 73

MBA 23rd BATCH

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ACADEMIC YEAR (2017-2019)

Supervised By:

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A Thesis submitted to the Board of Examiners in partial fulfillment of the requirements for the degree of Master of Business Administration (MBA)

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ACCEPTANCE

This is to certify that the thesis entitled "**Behavioral Factors on Investment Decision of Investors in Yangon Stock Exchange**" has been accepted by the Examination Board for awarding Master of Business Administration (MBA) degree.

Board of Examiners

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(Chairperson)

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(Examiner)	(Examiner)

DECEMBER, 2019

ABSTRACT

This paper intends to analyze the effect of behavioral factors on investment decision and to analyze the effect of investment decision on investment performance of investors in Yangon Stock Exchange. Primary data is collected with structured questionnaires to 235 active investors in Yangon Stock Exchange. According to the findings, herding, market and heuristic factors have significant effect on diversification of investment decision. Regarding to attribution of investment decision, herding and market factors have significant effect on it. Regarding to the effect of investment decision on investment performance, it is found that decision making by means of attribution has significant effect on investment performance of investors. Thus, investors need to diversify with the aim of long-term market returns in order to reduce their financial exposures to market downtrend instead of relying on short term gains.

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LIST OF ABBREVIATIONS

ASEAN	Association of Southeast Asia Nations
CBM	Central Bank of Myanmar
CSE	Colombo Stock Exchange
DICA	Directorate of Investment and Company Administration
DIR	Daiwa Institute of Research Ltd.
EMH	Efficient Market Hypothesis
FMI	First Myanmar Investment Co., Ltd.
FPB	First Private Bank Ltd.
IPO	Initial Public Offering
JPX	Japan Exchange Group, Inc.
MCB	Myanmar Citizens Bank Ltd.
MEB	Myanma Economic Bank
MIC	Myanmar Investment Committee
MTSH	Myanmar Thilawa SEZ Holdings Public Co., Ltd.
MOFR	Ministry of Finance and Revenue
MOU	Memorandum of Understanding
MYANPIX	Myanmar Stock Price Index
OTC	Over-the-counter
RSE	Rangoon Stock Exchange
SECM	Securities and Exchange Commission of Myanmar
SHSE	Shanghai Stock Exchange
TMH	TMH Telecom Public Co., Ltd.
YSX	Yangon Stock Exchange

CHAPTER 1

INTRODUCTION

Capital market is the venue where investments and savings are channeled between the capital providers, such as individual and institutional investors, and those who demand it, such as businesses and government. Capital market can be classified into primary market ,where new stocks and bonds are issued and sold to the investors, and secondary market, where investors trade securities with each other.

The economic status of a country can be understood through its stock market performance, which is designated for trading different types of securities in a regulated, safe and managed system. Because the stock market brings together hundreds of thousands of market participants wishing to buy and sell shares, it ensures fair pricing practices and transaction transparency while functioning under the regulator's defined rules.

Without capital market, individual may distribute some of their saving and assets to passive investment, such as gold, which cannot be used directly for physical investment. Savers may hold gold because they are anxious about a future loss of purchasing power. This have no benefit for country economy and no actual growth. Equity investment offers an opportunity to become a part of the company ownership and provides regular returns on investment as dividend income or through share price appreciation.

Decision making is a complex process that involves analyzing multiple factors and following various steps. Decision-making of investors are originated from complex financial models. These models include those based on expected risk and return from investments, and risk-based asset pricing models such as Capital Asset Pricing Model. But decisions making do not simply rely on the personal resources and complex models without taking consideration of situational factors. Situational factors are applicable not only to the problem faced by the decision maker, but also to the environment. Therefore, it is important to analyze the variables of the problem by applying cognitive psychology in order to make appropriate decision. Investment decisions made today are often crucial in later life for financial security, due to the potential of large financial risks and the high cost of salvaging from a bad investment decision.

The concept of investing is extensive as it can include all elements of purchasing with expectation to gain more value in the future. But as this concept is confusing as the market itself is not composed of cash, but objectives having high liquidity. Behavior finance explored the mentioned concept and focuses on psychological factors as to why people buy or sell stocks and even why they don't buy stocks at all. The behavioral finance aims to observe the psychological issues that manipulate investment decision making process of investors and argues that individuals may not always be rational.

Yangon Stock Exchange (YSX) is one of the most vital components of a free-market economy in Myanmar. But historically, YSX is not the first securities exchange in Myanmar. There was also a Rangoon Stock Exchange, throughout 1950s and 1960s with sizeable over-the-counter market. It was operated by seven European firms but when these firms were nationalized in the 1960s, The Rangoon Stock Exchange ceased to exist as well.

With the political liberalization in the 2010s, several reforms were made to enable local business environment, including banking and financial sector, to attract more foreign investments. Those reforms lead to the opening of YSX in December 2015 which marked the emergence of new capital market again. Even though YSX opened with no listings, currently 5 public companies are listed on YSX.

1.1 Rationale of the Study

Capital market reflects the general condition of the country economy, accelerates the process of economic growth and financial sector development of emerging markets. While the typical role of stock market as a center of trading in securities is the raising of funds for investment in long term assets to the investing public, the other roles are mobilizing savings to investment, redistribution of wealth, creating investment opportunities for small investors.

Establishment of YSX, standardized stock market for buying and selling of equity shares, attracts local investors who are looking to diversify their portfolios. But as one of the emerging stock exchanges, YSX faces challenges that hinder the efficiency, sustainable growth and development of the market. Major challenges include country's lack of infrastructure, such as technology, communications, limited pool of skilled financial professionals and the general financial illiteracy among locals.

Myanmar is an emerging frontier market in Asia with different ethnicity and cultural characteristics similar to other Asian countries. The strategic location of Myanmar which serve as the link between two biggest economies of Asia and the world, China and India, and Myanmar involvement in China's new Silk Road called One Belt One Road initiative attracts foreign investments and increase the focus of international community on Myanmar. This study provides an overview of behavioral finance in the country when comparing with western culture based on empirical findings and the importance of behavioral finance in Asia in general and Myanmar in particular.

Behavioral finance has a major effect on investor's decisions regard to their investment patterns. In the field of investments, the direct and indirect implications of behavioral finance are remarkably strong. Therefore, examining investor behavior in order to understand the fluctuations of capital market is essential. Thus, behavioral finance exposes the irrationality of investors in general and shows human shortcoming in competitive markets.

It is essential to investigate which behavioral factors have effect on investment decisions of investors at YSX and how these decisions effect their investment performances in order to recognize and deliver a suitable explanation for the investors' decisions. It is useful for investors to understand common behaviors, from which validate their reactions for better returns. Securities companies may also use this information for better understanding about investors to forecast more accurately and give better recommendations. Thus, stock price reflects its true value and stock market becomes the flagship of the economy's wealth and helps businesses to raise capital for expansion.

Due to the connection between stock market and economy, the rise of stock market has positive impacts on the development of the economy and vice versa. Investor decisions on the stock market therefore play an important role in defining the market trend, which in turn influence the economy. The link between numerous cognitive factors and individual investment behavior has been one of the most investigated problems among the applied finance researchers worldwide and most of them are undertaken in the developed stock markets of the US, UK and Europe and not numerous studies have been conducted in Asia. Only a few studies have been completed in emerging markets with no known research having been conducted locally which focuses on behavioral finance relating to individual investors.

1.2 Objectives of the Study

The main objectives of the study are:

1. To analyze the effect of behavioral factors on investment decision of investors in Yangon Stock Exchange.
2. To analyze the effect of investment decision on investment performance of investors in Yangon Stock Exchange.

1.3 Scope and Method of the Study

This study focuses the behavioral factors on investment decision of investors in Yangon Stock Exchange. Four behavioral factors such as herding, prospect, market and heuristic factors are analyzed. Herding factor includes buying and selling stock, choosing stock type, volume of trading and speed of herding. Prospect factor includes loss aversion, regret aversion and mental accounting. Market factor includes price changes and market information, past trends, customer preference of listed companies and over reaction to price changes. Heuristic factor includes overconfidence, gambler's fallacy, anchoring and availability bias. These factors have effect on investment decision of investors.

This study emphasizes on individual investors investing in Yangon Stock Exchange. This study uses both primary and secondary data. YSX has over 38,000 investors but this study only focuses on the population of 600 active individual investors. According to Raosoft, sample size 235 is needed for this study of 600 population size with 95 percent confidence level and 5 percent margin of error.

The primary data is collected using simple random sampling method. The structured questionnaires are distributed to randomly selected 235 active individual investors at securities companies and YSX but only 218 investors responded to questionnaires. The response rate is 93 percent. Thus, the data is reliable in this study. The secondary data is collected from the Yangon Stock Exchange, Securities and Exchange Commission of Myanmar, relevant textbooks on behavioral finance, investment management and capital market, internet websites, international theses, journals and previous research papers on behavioral finance and stock market form both local and international sources. Linear regression method is used to analyze the data.

1.4 Organization of the Study

There are total of five chapters in this study. Chapter 1 is the introduction of the study which includes rationale of the study, objectives of the study, scope and method of the study. Chapter 2 discusses theoretical background of behavioral finance, previous studies and conceptual framework. Chapter 3 states background of stock market in Myanmar and stock trading process in Yangon Stock Exchange. Chapter 4 is the analysis of behavioral factors on investment decision and effect on investment performance of individual investors in Yangon Stock Exchange. Chapter 5 concludes the study with finding and discussion, suggestions and recommendations and needs for further research.

CHAPTER 2

THEORITICAL BACKGROUND

This chapter consists of theories and concepts regarding behavioral factors that effect on investment decision and how investment decision effects on investment performance of investors. It also explains the conceptual framework. The related theories of dependent variables and independent variables are presented. But as there are two frameworks that describe and explain financial market: traditional finance framework and behavioral finance framework where the latter was developed due to the problems faced by using the former one. Therefore, traditional finance framework will also be briefly explained in order to understand the origin of finance theories.

2.1 Traditional Finance Theory

The traditional finance framework, which has dominated the field for decades, tries to understand financial markets by using models in which agents are rational. The interpretation of rationality is twofold. Firstly, when agents receive information, they update their beliefs correctly. And secondly, based on those correctly updated beliefs, they make choices that are normatively acceptable (Fama, 1970).

Much empirical research has pointed out that functioning of the stock market and the trading behavior of investors are not as easily understood in this framework as one would possibly hope for. In the traditional finance framework asset prices equal their fundamental value, under the condition that agents are rational. The framework has developed the Efficient Market Hypothesis (EMH), that has been tested in plenty of studies. EMH states markets are efficient and prices reflect their fundamental value. Following the EMH, an efficient market implies that investors cannot earn excess risk-adjusted average returns (Fama, 1991).

Researchers have disputed the EMH both empirically and theoretically. Behavioral economists attribute the flaws in financial markets to a combination of cognitive biases such as overconfidence, overreaction. representative and information biases and numerous other anticipated human errors in reasoning and information processing.

2.2 Behavioral Finance Theory

Behavioral Finance is a relatively new framework that has emerged as the result of the difficulties the traditional finance framework, such as EMH, has encountered. Behavioral finance argues that agents are not rational, but at least are less-than-fully rational. Asset prices could stray from their fundamentals as a result of the interplay of less-than-fully rational traders in the market (Barberis & Thaler, 2002).

Even though finance has been studied for thousands of years, behavioral finance that considers human behavior in the financial world is a fairly new field. Behavioral finance theories, which are based on psychology, try to understand how emotions and cognitive errors effect behavior of individual investors. Behavioral finance is becoming an integral part of the decision-making process, since it heavily influences the performance of investors. The investment performance can be improved by recognizing the prejudices and errors of judgment that all investors are sensitive to their performance.

Rekik, Mefteh and Boujelbene (2013) said that Tunisian investors do not forever act wisely while making investment decisions. The study concluded that herding attitude, representativeness, anchoring, loss aversion and mental accounting all influence the Tunisian investors' perception of their decision-making processes but there is an absence of overconfidence bias in the Tunisian Stock Market.

Neumann and Morgenstern (1947) said that behavioral finance is a study which has progressive the role of behavioral aspects of investment decisions. Tabassum and Pardhasaradhi (2012) stated that investment decision process is calculated critical decision for every investor, especially when investing in equities as it involves high risk and the income are not certain. While choosing a particular stock to make an investment, 40 attributes have been recognized that influence the investor exchange decision process. The generally influencing attributes were identified and ranked based on the frequency of highly important ranking given by the investor.

Kahneman and Tversky (1974) stated that anchoring is a phenomenon used in the circumstances when people use some original values to make judgment. Anchoring is a bias in which the investor trusts too greatly on limited known factors or points of reference as they cannot incorporate new information into their thinking since they are too attached to their existing views (Shefrin, 2002).

According to Statman (1999), mental accounting is consistent with some investor's irrational preference for stocks with high cash dividends. Investors feel free to spend dividend income but do not dip into capital by selling a few shares of another stock with the same total rate of return and with a tendency to hold losing stocks position for too long because behavioral investors are reluctant to realize losses. Barber and Odean (2001) highlighted that investors are affected by stock market events which attract their consideration, even when they do not recognize if these events can produce good future investment performance.

2.2.1 Herding Theory

Herding behavior in stock market is acknowledged as the investors' behaviors to follow the others' actions and decisions. Financial experts carefully consider the existence of herding as the investors rely on collective mutual information more than private information can result in stock price abnormality from the fundamental value, consequently, many good possibilities for investment at the present can be affected. Theoretical researchers also consider herding factor because it has effects on stock price changes can influence the attributes of risk and return models and this has impressions on the standpoints of asset pricing theories (Tan, Chiang, Mason & Nelling, 2008).

In the behavior viewpoint, herding can produce some sensitive biases, including conformity, congruity and cognitive conflict, the home bias and gossip. Investors may prefer herding if they believe that herding can help them to obtain useful and reliable information. In the security market, herding investors base their investment decisions on the others' decisions of buying or selling stocks. In contrast, informed and rational investors usually disregard the movement of herds, and this makes the market efficient. Herding can produce a state of inefficient market, which is usually resulted in speculative bubbles. In general, herding investors act the same ways as prehistoric men who had a little knowledge and information of the surrounding environment and gathered in groups to support each other and get safety (Caparrelli, 2004).

Waweru (2008) identified that stock investment decisions of an investor can be affected by the others' buying, selling, choice of stock, length of time to hold stock, and volume of stock to trade. Waweru concluded that buying and selling decisions of an investor are significantly affected by others' decisions, and herding behavior helps investors to have a sense of regret aversion for their decisions. Other decisions such as

choice of stock, length of time to hold stock, and volume of stock to trade, investors seem to be less affected by herding behavior. However, when these conclusions are given to the case of institutional investors, the result can be different to the case of individual investors because individuals investors tend to form herd in their investment more than institutional investors. Therefore, this research will explore the effect of herding on individual investment decision making at the YSX to assess the influence level of this factor on their decisions.

A substantial effort has been devoted to investigate the issue of the herd behavior in financial markets and its measurements. The literature of herd behavior is developed in different directions, and studies vary in their explanation of what might generate herd behavior. Theoretically, researchers mostly focus their attention upon origins and causes of herding behavior among financial markets' investors, because it is difficult to state a definition for herd behavior. Herding behavior in financial markets is generally understood as the irrational tendency among investors to follow other investors' actions and abandon fundamental information, predictions and beliefs, resulting in investors flocking together. The fear of regret on missing out on a good investment is often a motivating force behind herd instincts (Gębka & Wohar, 2013).

The increasing number of studies on herd behavior have given more understandings in the motivations behind herd behavior. Fascinatingly, before elaborating on the motivations of investors have to practice herding, the concept of herding will be briefly treated by contrasting two forms of herding: spurious herding and intentional herding (Devenow & Welch, 1996). Spurious herding is an efficient result of groups that take similar decisions as a result of groups obtaining similar information. Spurious herding is considered to be fundamental-driven, as this type of herding is not the result of investors blindly following each other's decisions, but it is simply a reaction to commonly known public information (Bikhchandi and Sharma, 2001). This type of herding leads to efficient decision-making. On the other hand, intentional herding is the result of investors having an obvious intend to copy the behavior of their fellow investors. This type of herding does not necessarily lead to efficient investment decisions (Bikhchandani & Sharma, 2001).

The underlying herd motivations could be generally divided in two categories, rational and irrational motivations of herding (Chang, 2000). Devonow and Welch (1991) stated that irrational herding suggests when investors blindly follow other investors without regard for their own gathered information. Psychological reasons underlie the motivation

to practice herd behavior. Investors blindly follow other investors as a result of feeling protected by following the mass. Christie and Huang (1995) added that investors particularly practice herd behavior in times of market stress. They argued that investors' confidence to make good investment decisions decreases during times of market stress, causing them to follow the market consensus.

2.2.2 Prospect Theory

Prospect theory provides a framework that explains how behavioral aspects influence risk tolerance in investment decisions. Kahneman and Tversky (1979) found that people underweight outcomes that are probable in comparison with those that are certain. They also found that people respond differently to equivalent situations depending on whether they are presented in the context of losses or gains. Lebaron (1999) suggested that people become considerably more distressed at the prospect of losses than they are satisfied by equivalent gains. In situations where the probability of loss is quite large, people show risk-seeking rather than risk-averse behavior (Tversky, 1990). Prospect theory explains numerous states of mind that can be expected to influence decision-making processes of individual investors. The key concepts include loss aversion, regret aversion and mental accounting.

Loss aversion identifies that the mental drawback associated with a loss is greater than the mental reward from a similar size gain (Shiller, 2000). According to Thaler (2006), if individuals are loss-averse, they will either not participate in equity markets or will distribute considerably less of their wealth to equities. If individuals are loss-averse, the potential pain from stock market declines overshadow the pleasure from gains even with a high equity premium. As a result, loss averse individuals choose to evade any exposure to equity. Loss aversion indicates that individuals frame events as either gains or losses relative to a reference point, and loss aversion in instruments, this phenomenon is believed to manifest in what is recognized as disposition effect. People are believed to realize gains too quickly in the fear that they may make a loss.

Regret refers to people's emotional reaction on making a mistake (Pious. 1993). Investors consistently participate in behavior that they regret later. They avoid selling shares that have decreased in value and readily sell shares that have increased in value (Shiller, 1998; Lebaron. 1999). Fogel and Berry (2006) found that investors reported regrets about holding a losing stock too long than about selling a winning stock too soon

and this led to the disposition effect. According to Odean (1999), while studying the US market, obtained data by a brokerage house for 10,000 accounts and tested the disposition effect. Odean found that there is an investors' preference to sell winners and to hold the losers.

Mental accounting is the tendency for individuals to organize their world into separate mental accounts. Investors tend to treat each element of their investment portfolio separately which can lead to inefficiency and inconsistency in making investment decisions (Shiller, 2000). According to Thaler (2006), every financial decision is based on rational calculation of its effects on overall wealth position. Thaler further stated that individuals separate their money into various mental accounts where they treat money differently depending on its source. Individual were found to be more spendthrift on money received as bonus or dividends than money meant to cater for tasks such as health or education. If investors have a tendency of distinguishing immediately in their mental accounts but suspending to acknowledge their bad decisions, they may sell stocks that have performed well and hold on poorly performing stocks which is recognized as the disposition effect (Odean, 1998).

2.2.3 Market Factor

DeBondt and Thaler (1995) stated that financial markets can be affected by investors' behaviors in the way of behavioral finance. If the assessments of behavioral finance are correct, it is believed that the investors may have over-reaction or under-reaction to price changes or market news, extrapolation of past trends into the future, a lack of consideration to underlying fundamentals of stock, the focus on popular stocks and recurrent price cycles. These market factors influence the decision making of investors in the stock market. Waweru (2008) identified the factors of market that have influence on investors' decision making such as price changes, market information, past trends of stocks, customer preference and over-reaction to price changes.

Luu (2012) said that market efficiency can be achieved when market prices reflect fundamental market characteristic and that excess returns on the average are leveled out in the long run. There have been numerous numbers of researches showing market anomalies cannot be clarified with the help of standard financial theory, such as irregular price movements in association with initial public offerings, mergers, stock splits. Statistical anomalies have continued to emerge which implies that the standing standard finance

models are perhaps imperfect if not wrong throughout the 1980s and 1990s. Investors must not react hastily to new information but to be overconfident modify their selections of investments when given superficial modifications in the management of investment information (Olsen, 1998).

Changes in market information, fundamentals of the underlying stock and stock price can cause over or under-reaction to the price change. These variables are empirically proved to have the high effect on investors' decision-making. Researchers stated that over-reaction (DeBondt & Thaler, 1985) or under-reaction (Lai, 2001) to market news may end up in different trading tactics by investors and consequently effect their investment decisions. Waweru (2008) said that market information has very high effect on investors' decision-making and this makes the investors to focus on well-liked stocks and other flamboyant events that are relied on the stock market information. Additionally, Barber and Odean (2000) emphasized that investors are affected by events in the stock market which attract their consideration, even when they do not know if these events can result good future investment performance. Odean (1998) explored that many investors trade too much due to their overconfidence.

The investors totally rely on the information quality of the market or stocks that they have been following when making decisions of investment. Waweru (2008) indicated that price change of stocks has influence on their investment behavior at some level. Odean (1999) stated that investors prefer buying to selling stocks that experienced higher price changes during the past two years. Change in stock price in this situation can be considered as an attention-grabbing occurrence in the market by investors. Additionally, Caparrelli (2004) proposed that investors are affected by herding effect and tend to move in the same flow with the others when price changes happen. Besides, investors may revise incorrect estimations of stock returns to deal with the price changes so that this affects their investment decision-making (Waweru, 2008).

Many investors tend to concentrate on popular stocks or hot stocks in the market (Waweru, 2008). Odean (1999) proposed that investors usually pick the stocks that attract their attention. Moreover, the stock choices also depend on the preferences of investors. Momentum investors may favor stocks that have good recent performance while rational investors tend to sell the past losers and this may help them to defer taxes. Behavioral investors prefer selling their past winners to defer the regret related to a loss that they can meet for their stock trading decisions (Waweru, 2008). Besides, past trends of stocks are

also explored to influence the decision-making behavior of the investors at a certain level. In this concept, investors usually investigate the past trends of stocks by technical analysis methods before deciding an investment.

In general, market factors are not integrated in behavioral factors because they are external factors affecting behaviors of investors. Nevertheless, the market factors influence the behavioral investors and rational investors in different ways, so that it is not adequate if market factors are not listed when considering the behavioral factors impacting the investment decisions. Together with the research of Waweru (2008), this research treated the market factors fairly as behavioral factors influencing the decisions of investors in the stock market.

2.2.4 Heuristic Theory

Heuristic is defined as the rules of thumb, which makes decision making easier, particularly in complicated and uncertain environments by reducing the complexity of evaluating probabilities and forecasting values to simpler judgments (Kahneman & Tversky, 1974). Kahneman and Tversky (1974) seem to be ones of the first writers studying the factors belonging to heuristic when introducing three factors namely representativeness, availability bias, and anchoring. Waweru (2008) furthermore listed two factors named Gambler's fallacy and Overconfidence into heuristic theory.

When people overestimate the reliability of their knowledge and skills, it is the indication of overconfidence (DeBondt & Thaler, 1995). Many studies show that excessive trading is one effect of overconfidence. Financial analysts revise their valuation of a listed company slowly, even in circumstances with considerable warning which shows that valuation is no longer accurate. Analysts and investors are often overoptimistic in areas that they have experience (Evans, 2006).

Overconfidence is believed to increase persistence and determination, mental facility, and risk tolerance. Additionally, overconfidence can help promote professional performance. According to Daniel, Hirshleifer and Subramanian (1998), if investors overvalues their abilities to generate information or to recognize the significance of existing data that others disregard, investors will underestimate their own forecast errors and investors will tend to be overconfident about the information they have generated but not about public signals.

Therefore, the person who overestimates the accuracy of their own information signals instead of received publicly information signals is defined as overconfident investors. Both the psychology and the recent finance literature distinguish people with this type of behavior as being overconfident. Studies in human behavior have revealed that overconfidence is one of the main contributing factors to overtrading phenomenon of stock market participants.

Barber and Odean (1999) attributed the high volume of trading to investors overconfidence, in which makes investors trust their own judgment too definitely and not enough consider others' assessment. The role of overconfidence in the trading tendency of stock has been studied by Grinblatt and Keloharju (2006). Their evaluation indicate that overconfident investors tend to trade more regularly. The principle that a small sample can resemble the parent population from which it is drawn is known as the law of small numbers (Rabin, 2002) which may lead to a Gamblers' fallacy (Barberis & Thaler, 2003). More accurately, Gamblers' fallacy arises in stock market when investors forecast inaccurately the reverse points which are reflected as the end of good or poor market returns (Waweru, 2008). Additionally, when people subject to status quo bias, they tend to select suboptimal alternative simply because it was selected beforehand (Kempf & Ruenzi, 2006).

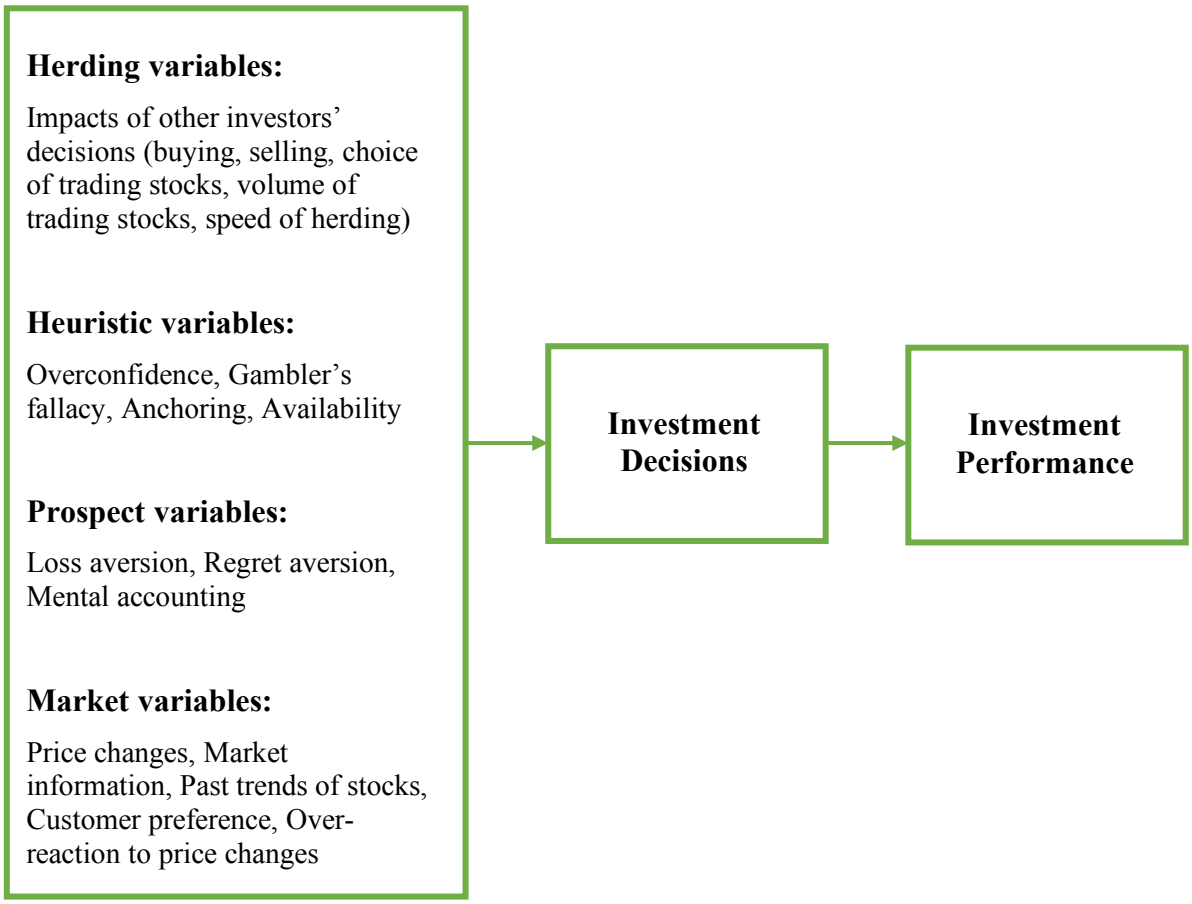
Anchoring is a phenomenon used in condition when people use some preliminary values to construct estimation, which are biased toward the original ones as different starting points generate different estimates (Kahneman & Tversky, 1974). In financial market, anchoring arises when a value scale is fixed by recent explanations. Investors always signify the original purchase value when selling or analyzing. Therefore, today prices are often determined by those of the past. Anchoring enhance investors to form a range for a stock price based on the historical price movements, resulting in under-reaction to unpredicted deviations. Anchoring has connection with representativeness as it reveals that investors often emphasize on recent experience and tend to be more enthusiastic when the market upswings and more unenthusiastic when the market tumbles (Waweru, 2008).

Availability bias result from people making use of easily available information excessively. In stock market, this bias marked itself across the preference of investing in established local businesses, which investors are accustomed with or have easily acquirable information, despite of using necessary investment principles so-called diversification return optimization (Waweru, 2003).

2.3 Empirical Studies

Navaneethakrishnan Kengatharan (2014) stated that there are four behavioral factors influencing the investment decision-makings of individual investors at the Colombo Stock Exchange (CSE): Herding, Heuristics, Prospect and Market. The herding factor includes four behavioral variables: choice of trading stocks, volume of trading stocks, buying and selling, and speed of herding. Heuristics factor consists of two behavioral variables: over confidence and anchoring. The prospect factor possesses two variables: loss aversion, and regret aversion. The market factor consists of two variables: market information, and customer preferences.

Figure (2.1) Conceptual Framework of Previous Studies



Source: Navaneethakrishnan Kengatharan (2014)

Most of the mentioned behavioral variables of four factors have impacts on individual investors' decision making at CSE. There is one item from herding, choice of stocks, having low impacts on investors' decisions: There is one variable from heuristics, anchoring, having high impacts on investors' decision. Choice of trading stocks of herding factor have negative significant influence on investment performance and other three variables of herding volume of trading stocks, buying and selling of stocks and speed of

herding do not have impact on performance. Overconfidence of heuristics factor has negative significant influence of investment performance whereas anchoring has positive significant influence on investment performance. Loss aversion and regret aversion of prospect factor do not have significant influence on investment performance. Market information and customer preferences of market factor do not have influence on investment performance.

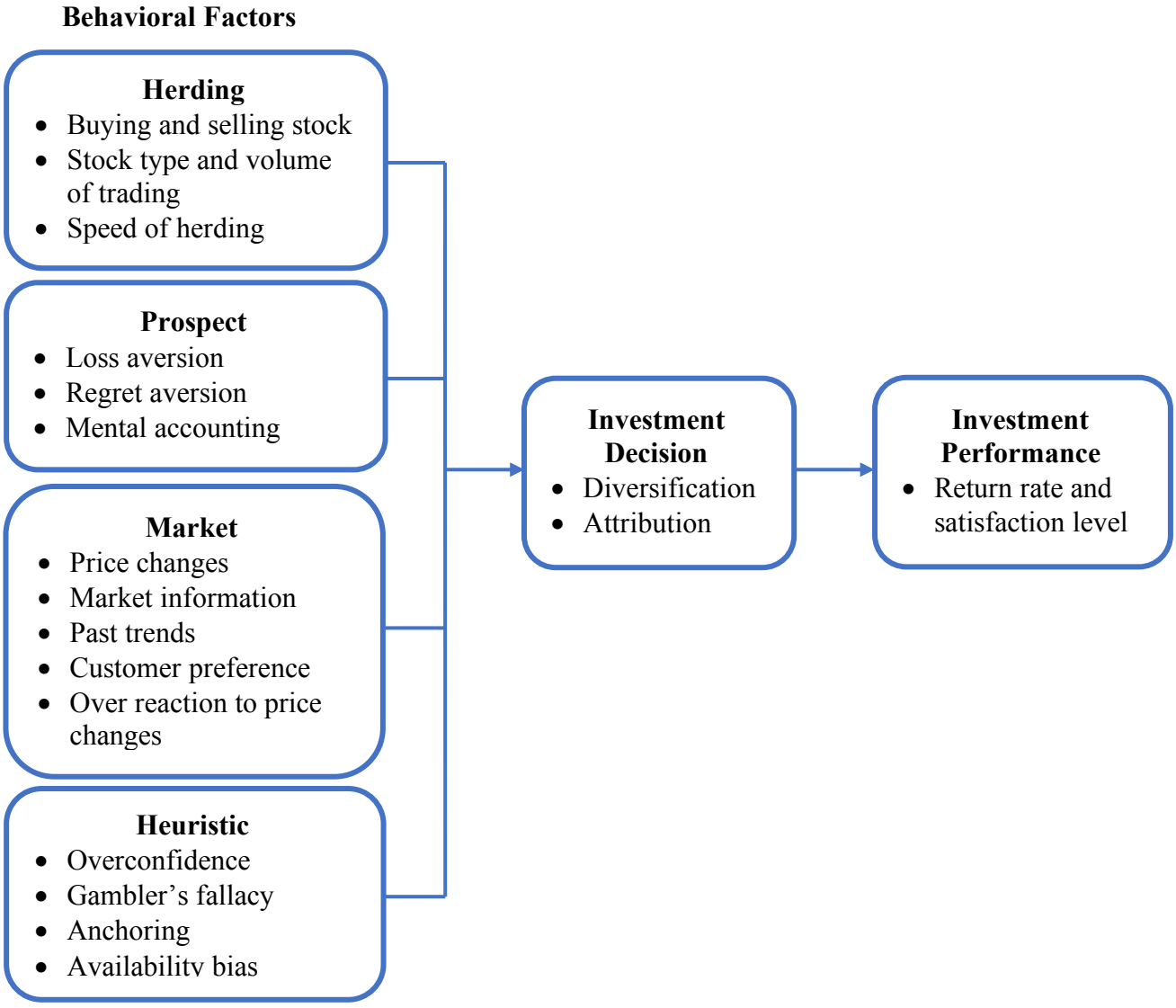
In another study, Wang (2005) aimed at investigating the behavior and performance of individual investors in the emerging China's market using the market data uniquely available from the Shanghai Stock Exchange (SHSE). China's stock market has been dominated by over sixty-million individual investors and the fastest growing stock market in the world over the past decade. In this study, Wang analyzed both the levels and changes of individual ownership to detect the behavior and performance of individual investors. He established that Chinese individual investors tended to hold stocks with high risk, high book-to- market ratios, high turnover, and high float ratios. Moreover, individual investors as an aggregate tended to sell stocks that outperformed the market over the previous six months, and hold on to the underperforming stocks.

Wang's findings were consistent with the behavioral finance theories that investors were overconfident and displayed the disposition effect. Wang further established that investors were predisposed to sell past winners and hold on to past losers in both the bull and bear markets, however, they appeared to be more overconfident in making investment decision in the bull market than in the bear market, that is, investors tended to own stocks with relatively higher risk, higher turnover, and lower float ratios in the bull market than in the bear market (Wang, 2005). A bull market refers to a market that is on the rise and occurs when stock prices and economy in general are doing well. A bear market is one with the declining value of both stock prices and economy.

2.4 Conceptual Framework of the Study

Following Figure (2.2) states the conceptual framework, adopted from Navaneethakrishnan Kengatharan (2014), for this study by combining the relevant behavioral finance theories with investment decision making and based on the previous findings of the studies. The purpose of this study is to explore the effect of behavioral factors on investment decision and investment performance.

Figure (2.2) Conceptual Framework of the Study



Source: Adopted from Navaneethakrishnan Kengatharan (2014)

According to the conceptual framework, investment decision of investors in Yangon Stock Exchange is measured by herding factor, prospect factor, market factor and heuristic factor. Then, the investment performance is measured by investment decision variables. This study is conducted to find out whether there are significant effects on investment decision by the behavioral factors. Firstly, it finds out the effect of dominant behavioral factors on investment decision. Later in the study, it analyzes the effect of investment decision on investment performance.

CHAPTER 3

BACKGROUND AND TRANSACTION OF STOCK MARKET

This chapter consists of background information and development of stock market in Myanmar, profile of Yangon Stock Exchange, key players of Yangon Stock Exchange and trading procedures in Yangon Stock Exchange.

3.1 Background of Stock Market in Myanmar

The Rangoon Stock Exchange (RSE) was a stock market that operated in Yangon from the 1930s until the arrival of second world war to Myanmar in 1941 and then revived in 1950s and shut down again in the early 1960s. It was a secondary over-the-counter (OTC) market for a few British and American stocks with most of the quotes sourced from Calcutta and Bombay Stock Exchanges. RSE was shut down when the second world war reached the country in 1941 but was restored in the late 1950s to trade shares of nine public joint-venture corporations. But this OTC market also shut down in the 1960s when all local businesses were nationalized by government that seized power in 1962.

After another government took power in 1988, it approved the state-owned Myanma Economic Bank (MEB) to form a 50-50 joint-venture stock exchange with Diawa Securities from Japan in April 1996. Daiwa Institute of Research Ltd. (DIR), Japan Exchange Group, Inc. (JPX) and the Central Bank of Myanmar (CBM) under the former Ministry of Finance and Revenue (MOFR) signed a Memorandum of Understanding (MOU) in May 2012 to improve human resources and offer technical assistance for the development of capital market in Myanmar.

The Securities Exchange Law was passed on July 31, 2013 to create a systematic and organized capital market in Myanmar, to give investor protection through rules and laws, and to regulate market participants such as public companies, securities companies and the stock exchange. The Securities and Exchange Commission of Myanmar (SECM) was formed on August 19, 2014 by the Union Government. The Deputy Minister of the Ministry of Finance is the chairperson of SECM.

The duties and responsibilities of SECM are to issue securities business license, to issue permit of stock exchange; to permit over-the-counter market for trading unlisted

securities; to submit necessary advice to the Union Government in respect of matters relating to the securities; to supervise the public company, securities company, over-the-counter-market, stock exchange, persons who are carrying out or had carried out as responsible persons, members, staff and agents of any license-holder or lawyer, auditor and agent of such license-holder so as to keep the accounts relating to their business in accordance with the relevant Myanmar accounting standard, to carry out research and development for securities business and communicate with the organizations of other countries that supervise the securities business, and the businesses, departments and organizations related to such organizations to make securities business compatible to international standards, to carry out other functions and duties assigned by the Union Government.

The Capital Market Development Committee, led by the Union Minister of the Ministry of Finance and Revenue, was organized on July 1, 2008 for the improvement and modernization of the state economy. Additionally, six sub-committees were created on September 17, 2008 in order to deliver efficient and effective assistance to main committee. These sub-committees are the development of domestic securities market sub-committee, the establishment and encouragement of public companies sub-committee, the enactment of the Securities Exchange Law sub-committee, the establishment of securities companies sub-committee, the training, educating and information concerning with the capital market sub-committee and the accounting and auditing standards for securities market sub-committee.

Road map with three stages for the development of capital market in Myanmar was drawn up in accordance with the time frame for the development of ASEAN integrated capital market. The first stage was from 2008 to 2009. The second stage was from 2010 to 2012 and the third stage was from 2013 to 2015.

Before 2015, Myanmar had been one of the only three countries in Asia without stock exchange, other two are North Korea and Brunei. Among Cambodian, Laos, Myanmar and Vietnam countries, Cambodia established its securities exchange in July 2011, Laos founded its securities exchange in January 2011, Vietnam commenced its first stock exchange in Ho Chi Min in July 2000 and started another stock exchange in Hanoi in March 2005.

On August 14, 2017, the Ministry of Planning and Finance adhered industry demands and relaxed the income-tax rate for the YSX listed companies by 5 percent to encourage the market development and to attract qualified public companies. According to the Government Revenue Law, public companies have to pay 25 percent income tax whereas YSX listed companies have to pay 20 percent income tax.

MEB and SECM was appointed as agents of the government treasury bonds sale for the development of efficient market infrastructure and trading market of the government bonds in January, 2010. Furthermore, secondary market trading was legalized in April, 2013. Daiwa Institute of Research, Japan's Policy Research Institute of Ministry of Finance, Japan Exchange Group, Stock Exchange of Thailand, Securities and Exchange Commission of Thailand and Korea Exchange are helping for Myanmar capital market development by means of technical assistants.

3.2 Profile of Yangon Stock Exchange

Yangon Stock Exchange joint-venture Company Limited (YSX) was permitted by the Myanmar Investment Committee (MIC) with the permission of foreign investment in December 2014. MEB, DIR and JPX entered into a joint-venture agreement for YSX. Then it was incorporated and registered by the Directorate of Investment and Company Administration (DICA) at the same year. The vision of Yangon Stock Exchange is to make new opportunities and build confidence for the economic development.

YSX acquired permission of stock exchange business issued by SECM in April 2015. YSX designated KBZ Bank as a fund settlement bank for cash settlement for stock trading on YSX. YSX releases the listing criteria for a public company to list in YSX in accordance with the article 41- (b) of Myanmar Securities and Exchange Law in August 2015.

December 9, 2015 is a historic day for Myanmar when the Yangon Stock Exchange, Myanmar's first stock exchange to opened its doors and a new era began for capital market in Myanmar. History has shown that it can take at least a hundred years for a stock exchange to be fully-developed and thrived. The YSX's opening was just sowing the seeds of a modern integrated stock exchange and it is the endeavoring task for the future generation to improve and develop it.

In early 2016, SECM and YSX announced that First Myanmar Investment Co., Ltd. (FMI) will be the first listed company and its share trading started on March 25, 2016, at YSX. YSX made a statement of publishing new stock index named MYANPIX (Myanmar Stock Price Index) in May 20, 2016. MYANPIX is YSX-calculated stock price index and becomes basic instrument to reflect Myanmar's stock market for investor. MYANPIX started to be calculated from March 25, 2016 and represents price fluctuation of an overall stock market.

3.3 Key Players of Yangon Stock Exchange

There are five key players in the Yangon Stock Exchange. These are investors, securities companies, listed companies, SECM and the stock exchange itself. Unlisted public companies are potential players of Yangon Stock Exchange.

a) Investors

An investor distributes capital into stock market with the expectation of future financial return. Investors utilize investments in order to grow their financial assets and generate an income. When YSX was established, only local individual and institutional investors were permitted to buy and sell stocks at YSX. However, SECM issued an announcement on 12 July 2019, allowing both foreign and local-foreign entities to purchase stock on the YSX. This allows resident foreigner to trade stocks on YSX and open the door for the foreign joint-ventures to be listed on YSX in order to attract more foreign direct investment into the country.

b) Securities Companies

The securities company is a company that facilitates stock trades between buyers and sellers for a fee. Securities company furthermore works closely with the securities issuing organization to establish the offering price of securities, buys them for the issuer and sells them to investors.

Two days after the Securities Companies Regulations was sanctioned on March, 2016, SECM announced that the six securities companies were awarded securities business license. Six securities companies which received underwriting license from the SECM are shown in Table (3.1).

Table (3.1) Six Securities Companies in Yangon Stock Exchange

No	Company	Licensed Date
1	KBZ Stirling Coleman Securities Co., Ltd.	February 26, 2016
2	Myanmar Securities Exchange Center Co., Ltd.	February 26, 2016
3	AYA Trust Securities Co., Ltd.	March 1, 2016
4	CB Securities Co., Ltd.	March 1, 2016
5	KTZ Ruby Hill Securities Co., Ltd.	March 1, 2016
6	Amara Investment Securities Co., Ltd.	November 23, 2016

Source: SECM Notification Letters, 2016

c) Listed Companies

The listed company is a company whose stocks are listed on a stock exchange for public trading. Currently there are five listed companies and their stocks are traded in the YSX.

Table (3.2) Five Listed Companies in Yangon Stock Exchange

No	Company	Licensed Date
1	First Myanmar Investment Public Co., Ltd. (FMI)	March 25, 2016
2	Myanmar Thilawa SEZ Holdings Public Co., Ltd. (MTSH)	May 20, 2016
3	Myanmar Citizens Bank Ltd. (MCB)	August 26, 2016
4	First Private Bank Ltd. (FPB)	January 20, 2017
5	TMH Telecom Public Co., Ltd. (TMH)	January 26, 2018

Source: SECM Notification Letters, 2016, 2017, 2018

d) Securities Exchange Commission of Myanmar (SECM)

According to Securities Exchange Law, which was passed in July 2013 to protect investors and regulate market participants by creating a systematic capital market, the Securities and Exchange Commission of Myanmar (SECM) was formed on August 19, 2014 by the Union Government. Chairman of SECM is the Deputy Minister of the Ministry of Finance and has seven members. SECM is the independent body and regulator of the capital market and market participants such as public companies, securities companies and the stock exchange.

e) Stock Exchange

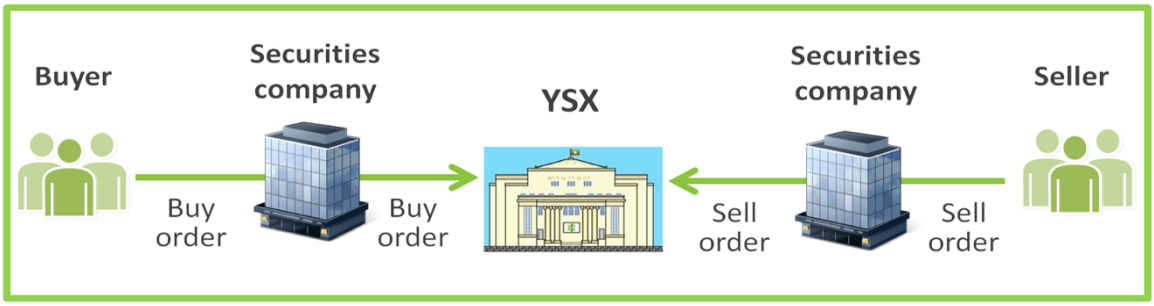
Stock exchange is a place where debt and equity securities of numerous types are traded transparently and proficiently. It is a market facilitator for capital mobilization and distribution, as businesses can raise capitals through the stock market. Myanmar's stock market is still quiet and to accelerate growth, the stock market needs to have breadth and depth. Businesses can boost manufacturing and exports with a efficient capital market. The inactive conditions of the market need to be addressed.

There were only three listed companies on the YSX in 2016, when it transacted 2.55 million stocks worth 70.74 billion MKK and 70,000 block trades worth 2.25 billion MKK. In 2017, the number of listed companies rose to four, 2.71 million shares worth 22.13 billion MMK were exchanged hands, and there were 1.6 million block trades worth 7.22 billion MMK. Last year, the number of listed firms rose to five, but trading volume dereacsed slightly to 2.36 million shares worth 11.5 billion MMK and 680,000 block trades worth 2.51 billion MMK.

3.4 Trading Procedure in Yangon Stock Exchange

Yangon Stock Exchange offers opportunities to investors to buy or sell listed company's stocks. Investors have to send their buying or selling orders to YSX through securities companies with securities license issued by SECM as well as trading qualification provided by YSX.

Figure (3.1) Stock Trading Process of Yangon Stock Exchange



Source: Yangon Stock Exchange, 2016

In order for an investor to trade stocks in YSX, investor must do the following steps to get ready, such as choosing a securities company, bank account and securities account. Firstly, an investor must pick a securities company with securities license and trading

qualification, for opening a securities account. Investors can be able to open securities accounts with several securities companies licensed by SECM. Secondly, investor must open a bank account with banks selected by a chosen securities company if an investor hasn't opened the bank's account. Depositing or transferring cash to the bank account and customers bank account of a securities company. Finally, investor must open a securities account by entering into an agreement on a securities account opening with chosen securities company and open an account.

After those steps, investor need to know the logic of investment decision making and stock trading rules. In order to decide, sometimes with receiving investment advice from securities companies, investor need to know which stocks to choose, how price matching works, volume of stocks and what timing an investor can place buy/sell order, through a securities company, on YSX. The final investment decision needs to be done by the investor and the investor has responsibility for the decision of stock trading and order placement. Once the opening of bank and securities accounts are done, an investor is able to send buying and selling orders under following stock trading rules stipulated in the Trading Business Regulations.

YSX's trading-hours is from 09:30 AM to 01:00 PM local time on every weekday except public holidays. Likewise, the stock trading orders are accepted from 09:30 AM to 01:00 PM known as order acceptance time. But there are four price matching times for the buy and sell orders to be matched, 10:00 AM, 11:00 AM, 12:00 PM and 1:00 PM, throughout trading day.

According to the Securities Exchange Law, SECM allows investors to place three order types which are market order, limit order and price limit. A market order is an order placed without identifying the buying or selling price. Even though a market order has price priority than other limit orders and is likely to be executed, the order has risk which the investor may buy or sell stocks at unexpected higher or lower matching price. A limit order is an order placed by specifying the price at which the trader seeks to buy or sell stocks. Even though an investor placing a limit order can reduce risk of buying/selling stocks at unexpected price, an investor cannot buy/sell shares if a matching price is higher than limit order price.

YSX sets daily price limit for all stocks of listed companies to prevent too much instability of stock prices. An upper and a lower limit price of the day is decided based on

a level of a base price under the table specified in the Enforcement Regulations for Trading Business Regulations. A base price in general is the last matching price of a previous trading day.

Table (3.3) Price Limit

Base price (MMK)		Price limit (MMK)
From (≧)	Below (<)	
2,000	4,000	500
4,000	10,000	1,000
10,000	20,000	2,500
20,000	40,000	5,000
40,000	100,000	10,000
100,000	200,000	25,000

Source: Enforcement Regulations for Trading Business Regulations

Investors must aware of the minimum order unit and tick size when placing trade orders in YSX via securities companies. Order unit, which is a minimum amount of shares an investor is able to place on YSX's order books of listed companies, is one share. A tick size is the minimum stock price movement of stocks of a listed company and the tick size is decided based on tick size table specified in the Enforcement Regulations for Trading Business Regulations.

Table (3.4) Tick Size

Order price (MMK)		Tick size (MMK)
Above (>)	Up to (≦)	
0	1,000	10
1,000	4,000	50
4,000	10,000	100
10,000	40,000	500
40,000	100,000	1,000
100,000	400,000	5,000

Source: Enforcement Regulations for Trading Business Regulations

YSX uses three types of matching methods for every trade order such as price priority method, time priority method and call auction methods. Price priority method is implemented by placing the order price that is higher than other orders get filled first and a market order has the first price priority. Time priority method is implemented if the price priority is same, earlier order has priority to get filled first. Call auction method is implemented as the system calculates the cumulative amounts in each buy and sell order book side for each limit price recorded in the order book. For market order, each buy and sell order is positioned on the cumulative buy or sell order column of the higher limit price or lowest limit price with the superior price having priority than the limit orders.

Table (3.5) Placing Orders Before Matching Time

Cumulative Sell Order	No. of Sell Order	Price	No. of Buy Order	Cumulative Order
-	80	Market Order	200	-
472	10	44,000	30	230
462	45	43,000	40	270
417	80	42,000	52	322
337	**55**	**41,000**	**16**	**338**
282	96	40,000	8	346
186	44	39,500	100	446
142	32	39,000	80	526
110	20	38,500	52	578
90	10	38,000	25	603

Source: Yangon Stock Exchange, 2016

Comparing the sums of each order book side, a matching price is determined in the price allowing the largest number of stocks to be transacted. Afterward, all the stocks are filled at this matching price. If there are two contender prices to be a matching price, a closer price with the previous matching price or a base price becomes a matching price. According to Table (3.5) and Table (3.6), matching result is 41,000 for price and 337 shares for the stock volume.

Table (3.6) Order Matching and Matching Result

Cumulative Sell Order	No. of Sell Order	Price	No. of Buy Order	Cumulative Order
-	-	Market Order	-	-
135	10	44,000	-	-
125	45	43,000	-	-
80	80	42,000	-	-
-	-	**41,000**	**1**	**1**
-	-	40,000	8	9
-	-	39,500	100	109
-	-	39,000	80	189
-	-	38,500	52	241
-	-	38,000	25	266

Source: Yangon Stock Exchange, 2016

An investor is able to submit trading orders through a securities company to YSX anytime throughout trading hours and orders are filled if the orders satisfy matching constraint mentioned above. After a matching time at 10:00 AM or 11:00 AM 12:00 PM or 1:00 PM, an investor receives execution result of trading orders via a securities company's execution notice if orders are executed. Information of a matching price and volume of stocks is able to be seen on the YSX's website. The trading process is complete by confirming order execution of YSX.

CHAPTER 4

ANALYSIS OF BEHAVIORAL FACTORS, INVESTMENT DECISION AND INVESTMENT PERFORMANCE OF INVESTORS IN YANGO STOCK EXCHANGE

In this study, the behavioral factors on investment decision of investors in Yangon Stock Exchange is analyzed. This chapter consists of the demographic profiles of respondents, the mean values of behavioral factors, investment decision and investment performance of investors. Also, the effect of behavioral factors on investment decision and investment performance of investors is summarized and evaluated.

4.1 Profile of Respondents

In this study, the sample size is 218 respondents who are actively investing in stocks listed on Yangon Stock Exchange. Profile of respondents includes demographic factors such as gender, age, marital status, education, investment experience, monthly income, amount of investment and source of investment advice. Each characteristic has been analyzed in terms of absolute value and percentage. Table (4.1) shows the results of the analysis on the respondents' demographic profile, as follows.

The first analysis of the demographic characteristics of respondents is the gender analysis. The gender of the respondents is simply classified into males and females. Table (4.1) shows the result of gender profile of respondents and it indicates that there more female-respondents than the male-respondents among 218 respondents. It can be said that stock market in Myanmar has considerable numbers of active female investors and also indicates that the country's financial sector has more gender diversity compare to international standards.

The marital status is also one of the demographic questions asked in common surveys and it has certain effect on investment outlook of investors. In this analysis of marital status of respondents have been grouped into two: single and married. According to the survey results, majority of respondents are single. This indicates that single investors, who have more financial freedom than married ones, are actively investing in stock market.

Table (4.1) Profile of Respondents

Variable	Demographic Factors	No of Respondents	Percentage
	Total	**218**	**100**
Gender	Male	94	43.1
	Female	124	56.9
Age	Below 21	6	2.8
	21-30 Years	115	52.7
	31-40 Years	71	32.5
	41-50 Years	18	8.3
	Over 51 Years	8	3.7
Marital Status	Single	137	62.8
	Married	81	37.2
Education	High School	3	1.4
	Undergraduate	9	4.1
	Bachelor	155	71.1
	Master	51	23.4
Investment Experience	Below 1 Year	57	26.1
	1-3 Years	106	48.7
	Above 3 Years	55	25.2
Monthly Income (MMK)	Below 500,000	36	16.5
	500,000 to 1,000,000	67	30.7
	1,000,000 to 2,000,000	64	29.4
	Above 2,000,000	51	23.4
Amount of Investment (MMK)	Below 500,000	30	13.8
	500,000 to 1,000,000	44	20.2
	1,000,000 to 2,000,000	89	40.8
	Above 2,000,000	55	25.2
Source of Investment Advice	Newspapers	33	15.1
	Internet	66	30.3
	Friends and Family	54	24.8
	Finance Professionals	39	17.9
	Finance Advisor	26	11.9

Source: Survey Data, 2019

Age is one of the usual demographic subjects asked in questionnaires. Age can often determine knowledge and experiences with the focus of the survey. Results from analysis of age of respondents show that the age groups of 21-30 years old and 31-40 years old respondents are the largest age groups. The respondents who are younger than 21 years and older than 51 years are the age groups with smallest representation. From the age analysis, survey could be said that young adults and middle-aged respondents can analyze their views on behavior factors, investment decision and investment performance on their investments.

Education background is one of the vital factors in surveys. Education often determines the respondent knowledge. In this analysis of education level of respondents, their education levels have been grouped into four: high school, undergraduate, bachelor and master degree. According to the Table (4.1), most of the respondents are educated persons with at least having bachelor degree.

In the analysis of investment experience of respondents, the dominant group of the respondents is the respondents with 1 to 3 years of investment experience. This group combine with respondents who have over 3 years of investment experience represent 73.9 percent of total. It can be concluded that most of the respondents started investing when YSX opened its business in 2016.

According the Table (4.1), analysis of monthly income has been grouped into four and results indicate that the largest groups are the respondents with monthly income over 5,000,000 Ks to 2,000,000 Ks. As income plays vital role in investment, it can be concluded that most of the respondents have decent amount of income level to invest in stock market.

In the analysis of investment amount has been grouped into four and results indicate that he largest groups are the respondents with investment from 1,000,000 Ks to even over 2,000,000 Ks. It can be concluded that most of respondents invested heavily in stock market.

Lastly, source of investment advice is also analyzed by grouping into five and the results indicate that the largest group are the respondents who identified their source of investment advice as internet and friends and family. It can be concluded that most of the respondents rely on compilation of stock research from other people rather than conducting their own research or relying on professionals.

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4.2 Behavioral Factors of Investors

In this study, linear regression is used. To gain the better understanding of which variables effect the investment decision through behavioral factors of investors, each element of behavioral factors such as herding, prospect, market and heuristic factors are analyzed. The results are presented in the following Table (4.2). (4.3), (4.4) and (4.5).

4.2.1 Herding Factor

In this analysis on the herding factor of investors, respondents are required to respond 5 statements including buying and selling stock, choosing stock type, volume of trading and speed of herding elements and how they effect on the investment decision of investors. The results are shown in Table (4.2) based on survey findings.

Table (4.2) Herding Factor

Sr.	Description	Mean	Std. Dev
1.	Impact of other investors' stock buying decision	3.89	0.937
2.	Impact of other investors' stock selling decision	3.95	0.905
3.	Impact of other investors' choosing stock type decision	4.02	0.866
4.	Impact of other investors' trading stock volume decision	4.08	0.881
5.	Quick reaction to changes of other investors' decisions	3.87	0.687
	Overall Mean	**3.97**	

Source: Survey Data, 2019

According to the Table (4.2), the overall mean value is 3.97 which indicates that most of the respondents highly agree with the statements. The impact of other investors' trading stock volume decision and the impact of other investors' choosing stock type decision mostly affect investors. Impact of other investors' stock selling decision, impact of other investors' stock buying decision and quick reaction to changes of other investors' decisions also effect investors to follow others as a herd. This indicate the evidence of strong herd behavior among investors in YSX and the existence of low-quality and incomplete disclosure of market information from listed companies and also among investors themselves.

4.2.2 Prospect Factor

In this analysis on the prospect factor of investors, respondents are required to respond 5 statements including loss aversion, regret aversion and mental accounting elements. The results are shown in Table (4.3) based on survey findings.

Table (4.3) Prospect Factor

Sr.	Description	Mean	Std. Dev
1.	Risk seeking due to prior gain	3.86	0.905
2.	Risk aversion due to prior loss	3.89	0.885
3.	Regret aversion	3.82	0.906
4.	Ignorance of connection between investment possibilities	3.73	0.963
5.	Separate treatment of elements in investment portfolio	3.78	0.959
	Overall Mean	**3.82**	

Source: Survey Data, 2019

According to the Table (4.3), the overall mean value is 3.82 which indicates that most of the respondents highly agree with the statements. The respondents highly agree that when a prior loss occur, they become risk averse and also when a prior gain occur, they seek more risk. Both of these scores indicate that the respondents have loss aversion behaviors. Respondents also agree they have regret aversion behavior from prematurely selling value-increased shares and holding on value-decreased shares. Respondents also have mental accounting behaviors which led to ignorance of connection between investment possibilities and separate treatment of elements in their investment portfolios. This indicates that the prospect factors of investors in YSX are limited by their own psychological perceptions of risk.

4.2.3 Market Factor

In this analysis on the prospect factor of investors, respondents are required to respond 5 statements including price changes, market information, past trends of stocks, customer preference and over reaction to price changes. The results are shown in Table (4.4) based on survey findings.

According to the Table (4.4), the overall mean value is 3.84 which indicates that most of the respondents highly agree with the statements. The respondents highly agree that they consider past trends of stocks and stock price changes carefully.

Table (4.4) Market Factor

Sr.	Description	Mean	Std. Dev
1.	Consideration of stock price changes	3.91	0.931
2.	Importance of market information	3.89	0.897
3.	Consideration of past trends of stocks	4.01	0.948
4.	Analyzing of listed company's customer preference	3.86	0.957
5.	Over reaction to stock price changes	3.52	0.896
	Overall Mean	**3.84**	

Source: Survey Data, 2019

Respondents also analyze listed company's customer preference before deciding to invest. Respondents also agree that they have over reactions to stock price changes as well. These mean values indicate that the stock prices are highly reflected by the investors perception on analyzing price changes and past trends.

4.2.4 Heuristic Factor

In this analysis on the heuristic factor of investors, respondents are required to respond 5 statements including overconfidence, gambler's fallacy, anchoring and availability bias. The results are shown in Table (4.5) based on survey findings.

Table (4.5) Heuristic Factor

Sr.	Description	Mean	Std. Dev
1.	Overconfidence on outperforming market	3.94	0.851
2.	Gambler's fallacy on anticipating the end	3.61	0.93
3.	Anchoring by forecasting price changes	3.76	0.809
4.	Anchoring by relying on previous investment experience	3.67	0.809
5.	Availability bias on buying stocks	3.82	0.876
	Overall Mean	**3.76**	

Source: Survey Data, 2019

According to the Table (4.5), the overall mean value is 3.76 which indicates that most of the respondents agree with the statements. The respondents overconfidently believe that their skills and knowledge of stock market can outperform the market with have preference to buy stocks with more available information rather than stocks with less available information. Respondents have anchoring behaviors on forecasting price changes and relying on their previous investment experience and respondents also agree that they have somewhat gambler's fallacy on anticipating the end of good or poor results from their investment as well. These mean values indicate the existence of intuitive judgment and evidence of heuristics behavior among investors in YSX.

4.3 Investment Decision of Investors

Regarding to the analysis of investment decision of investors, respondents are required to respond total 10 statements from 2 variables such as diversification and attribution with 5 separate statements each. The results from the analysis are shown in Table (4.6) and (4.7).

4.3.1 Diversification

In this analysis on the diversification of investment decision, respondents are required to respond 5 statements including spending half of investment in stock market, effect of making risky investment compare to benefits provided by it, financial security through less risky alternatives, investing in stock market due to its liquidity and having no concerns for fluctuations in the market. The results are shown in Table (4.6).

Table (4.6) Diversification

Sr.	Description	Mean	Std. Dev
1.	Intention to put half of investment in stock market	3.92	0.816
2.	Effect of making risky investment compare to benefits provided by it	4.00	0.851
3.	Financial security through less risky alternatives	4.06	0.865
4.	Investing in stock market due to its liquidity	3.86	0.809
5.	Having no concerns for fluctuations in the market	3.98	0.943
	Overall Mean	**3.96**	

Source: Survey Data, 2019

According to the Table (4.6), the overall mean value is 3.96 which indicates that most of the respondents agree with the statements. The respondents mostly seek financial security through less risky alternatives and highly compare the effect of making a risky investment with the benefits provided by it. Respondents have no concerns for fluctuations in the market and have intention to put half of their investment money into stock market. Respondents invest in stock market due to its liquidity. These mean values indicate that the investors consider stock market as a major avenue to diversify their investment portfolios.

4.3.2 Attribution

In this analysis on the attribution of investment decision, respondents are required to respond 5 statements including making investment decision based on listed company's fundamentals, investing in stocks that have high trading volumes, preference to invest in stocks that are frequently advertised or cited in news, investing in stocks that recently outperformed the market, investing in recent down trend stocks with the expectation of future recovery. The results are shown in Table (4.7) based on survey findings.

Table (4.7) Attribution

Sr.	Description	Mean	Std. Dev
1.	Making investment decision based on listed company's fundamentals	3.73	0.833
2.	Investing in stocks that have high trading volumes	3.87	0.781
3.	Preference to invest in stocks that are frequently advertised or cited in news	3.89	0.796
4.	Investing in stocks that recently outperformed the market	3.89	0.703
5.	Investing in recent down trend stocks with the expectation of future recovery	3.94	0.784
	Overall Mean	**3.87**	

Source: Survey Data, 2019

According to the Table (4.7), the overall mean value is 3.87 which indicates that most of the respondents agree with the statements. The respondents highly agree that they tend to invest in recent down trend stocks with the expectation of future recovery. The respondents have preference of investing in stocks that are frequently advertised or cited in

news. Respondents are also likely to invest in stocks that recently outperformed the market and likely to invest in stocks that have high trading volumes. Respondents somewhat make investment decision based on listed company's fundamentals. These mean values indicate the evidence of attributive decision making among investors. Investors based on their cognitive perceptions which results in making specific stock picks.

4.4 Investment Performance of Investors

Regarding to the analysis of investment performance of investors by means of return rate and satisfaction level, respondents are required to respond 7 statements including achieving expected return rate from stock investment, achieving equal or higher return rate compare to low risk investment avenues, achieving equal or higher return rate compare to traditional investment avenues, achieving increased revenue or cash flow growth from stock investment in past year, satisfy with investment decision regards to selling and buying of stocks, satisfy with investment decision regards to choosing stock type and volume and overall satisfaction with investing in stock market. The results are shown in Table (4.8).

Table (4.8) Investment Performance

Sr.	Description	Mean	Std. Dev
1.	Achieving expected return rate from stock investment	3.87	0.804
2.	Achieving equal or higher return rate compare to low risk investment avenues	3.96	0.77
3.	Achieving equal or higher return rate compare to traditional investment avenues	3.94	0.854
4.	Achieving increased revenue or cash flow growth from stock investment in past year	4.00	0.737
5.	Satisfy with investment decision regards to selling and buying of stocks	4.00	0.789
6.	Satisfy with investment decision regards to choosing stock type and volume	4.00	0.722
7.	Overall satisfaction with investing in stock market	4.02	0.826
	Overall Mean	**3.97**	

Source: Survey Data, 2019

According to the Table (4.8), the overall mean value is 3.97 which indicates that most of the respondents agree with the statements. Respondents highly agree that they have overall satisfaction with investing in stock market. They achieve increased revenue or cash flow growth from stock investment in past year, satisfy with investment decision regards to selling and buying of stocks and satisfy with investment decision regards to choosing stock type and volume. Respondents also achieve equal or higher return rate compare to low risk investment avenues and also compare to traditional investment avenues as well. Respondents agree on achieving expected return rate from stock investment. These mean values indicate that the investors have satisfaction on their investment returns from YSX listed stocks and also satisfy with investing in stock market.

4.5 Analysis on the Effect of Behavioral Factors on Investment Decision

In order to analyze which behavioral factors have significant impact on investment decision of investors in Yangon Stock Exchange, a regression model is developed and estimated. In the model, the dependent variable is investment decision while the independent variables are four behavioral factors: herding, prospect, market and heuristic factors.

4.5.1 Analysis on the Effect of Behavioral Factors on Diversification

Table (4.9) shows the result of analysis on the effect of behavioral factors on diversification which is one of the factors of investment decision because diversification in the investment community constitutes a key concept, considered as an indicator of investors' perception on risk and return.

As the results of Table (4.9), R Square is 0.723 and Adjusted R Square is 0.718. This model can explain 71.8 percent about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 1 percent level. Herding, market and heuristic factors are also significant at 1 percent level. The Standardized Coefficient (Beta) indicates that these three variables are positively related with diversification (dependent variable), which is one of the factors of investment decision of investors in YSX. It means that the higher the independent variables, the greater the dependent variable. Investment decision-making of investors to diversify their portfolio is highly affected by herding, market and heuristic behaviors.

Table (4.9) Analysis on the Effect of Behavioral Factors on Diversification

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	0.361	0.156		2.307	0.022	
Herding	0.460***	0.068	0.450	6.808	0.000	3.35
Prospect	-0.009	0.05	-0.010	-0.181	0.856	2.287
Market	0.275***	0.061	0.279	4.539	0.000	2.898
Heuristic	0.201***	0.063	0.204	3.185	0.002	3.141
R	0.850					
R Square	0.723					
Adjusted R Square	0.718					
F Value	138.846***					
Durbin-Watson	1.921					

a. Dependent Variable: Diversification

***, **, * significant at 1%, 5%, 10%, Source: Survey Data, 2019

Herding factor has the expected positive effect on diversification with the significant coefficient level at 1 percent, with the highest beta value of 0.450 and the significant coefficient value of 0.000. It reveals the significant evidence of herd behavior by investor toward market movement. A unit increase in herding results in 0.460-unit increase in diversification.

Market factor has the positive effect on diversification with the significant coefficient level at 1 percent, with the beta value of 0.279 and the significant coefficient value of 0.000. It points that market variables have high effect on diversification of investors. A unit increase in market factor lead to 0.275-unit increase in diversification.

Heuristic factor also has the positive effect on diversification with the significant coefficient level at 1 percent, with the beta value of 0.204 and the significant coefficient value of 0.002. It reveals the significant evidence of heuristic behavior by investor regards to investment diversification decision. A unit increase in heuristic will lead to 0.201-unit increase in diversification.

Results from analysis on the effect of behavioral factors on diversification indicate that investors intentionally follow the decisions of other investors as a herd. Investors do this when investment decisions are aligned with others decisions and also when there is uncertainty about the quality of information. Investors make their own assessments of the publicly available market information, past trends and price changes. These behaviors combine with investors' overconfidence, gambler's fallacy, anchoring and availability bias led to the investors drawing conclusions about whether to follow the assessment and actions of others in order to reduce risk.

Such conditions can be seen at FMI and MTSH stocks, earliest listed companies in YSX and started a hype among investors who never experienced stock investing before. Investors flocked around these stocks as their prices jumped upward in first months of listing and provided high return rates.

4.5.2 Analysis on the Effect of Behavioral Factors on Attribution

Table (4.10) shows the result of analysis on the effect of behavioral factors on attribution which is one of the factors of investment decision-making because attribution is the one of the primary aspect of investors' investment selections and philosophy that lead to investment performance.

As the results of Table (4.10), R Square is 0.722 and Adjusted R Square is 0.716. This model can explain 71.6 percent about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 1 percent level.

Herding factor has the expected positive significant effect on attribution with the significant coefficient level at 1 percent, with the highest beta value of 0.518 and the significant coefficient value of 0.000. It reveals the significant evidence of investors' herd behavior which enforce their cognitive attribution decision. A unit increase in herding results in 0.495-unit increase in attribution.

Market factor has the positive significant effect on attribution with the significant coefficient level at 1 percent, with the beta value of 0.453 and the significant coefficient value of 0.000. It points that market variables have high effect on attribution. A unit increase in market factor lead to 0.417-unit increase in attribution.

Table (4.10) Analysis on the Effect of Behavioral Factors on Attribution

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	0.561	0.146		3.836	0.000	
Herding	0.495***	0.063	0.518	7.833	0.000	3.35
Prospect	-0.054	0.047	-0.063	-1.159	0.248	2.287
Market	0.417***	0.057	0.453	7.354	0.000	2.898
Heuristic	-0.014	0.059	-0.015	-0.236	0.813	3.141
R	0.850					
R Square	0.722					
Adjusted R Square	0.716					
F Value	138.067***					
Durbin-Watson	2.014					

a. Dependent Variable: Attribution

***, **, * significant at 1%, 5%, 10%, Source: Survey Data, 2019

Results from analysis on the effect of behavioral factors on attribution indicate that investors' attributed decisions are intensified by the consensus information about other investors in same situation act and follow the decisions of other investors as a herd by means of buying, selling, choosing stocks and trading volume. Attribution is also intensified by access to quality market information, past trends, analysis of listed company's customer preference, price changes and over reaction to the market conditions and events especially due to the remaining impact of downtrend stock prices during 2017 and 2018.

Such conditions can be seen as investors cognitive preference to invest in high return stocks such as FMI and MTSH as these listed companies disclose more standardized and routine quality information in the media, promote their products and services more effectively and also provide stable dividends compare to other stocks in YSX.

4.6 Analysis on the Effect of Investment Decision on Investment Performance

In order to analyze the effect of investment decision on investment performance of investors in Yangon Stock Exchange, a regression model is developed and estimated. In the model, the dependent variable is investment performance while the independent variables are two investment decision factors: diversification and attribution. Table (4.11) shows the result of analysis on the effect of investment decision by mean of diversification and attribution and its impact on their return rate and satisfaction level of investment performance.

Table (4.11) Analysis on the Effect of Investment Decision on Investment Performance

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	0.556	0.119		4.684	0.000	
Diversification	0.079	0.071	0.086	1.109	0.269	6.443
Attribution	0.802***	0.076	0.815	10.508	0.000	6.443
R	0.894					
R Square	0.799					
Adjusted R Square	0.798					
F Value	428.656***					
Durbin-Watson	1.971					

a. Dependent Variable: Return Rate and Satisfaction Level

***, **, * significant at 1%, 5%, 10%, Source: Survey Data, 2019

As the results of Table (4.11), R Square is 0.799 and Adjusted R Square is 0.798. This model can explain 79.8 percent about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 1 percent level.

Attribution is significant at 1 percent level. The Standardized Coefficient (Beta) indicates that attribution variable is positively related with return rate and satisfaction level of investment performance (dependent variable). It means that the higher the independent

variable, the greater the dependent variable. Return rate and satisfaction level of investment performance is highly affected by attribution decision of investor. Attribution has the positive significant effect on return rate and satisfaction level of investment performance with the significant coefficient level at 1 percent, with the beta value of 0.815 and the significant coefficient value of 0.000. It reveals the significant effect on return rate and satisfaction level of investment performance by investors' cognitive attribution decision. A unit increase in attribution results in 0.802-unit increase in return rate and satisfaction level.

Results from analysis on the effect of investment decision on investment performance indicate that investors achieve expected return rate from stock investment, achieve equal or higher return rate compare to low risk investment avenues such as bank savings, bank fixed deposit, achieve equal or higher return rate compare to traditional investment avenues such as US Dollar, gold, achieve increased revenue or cash flow growth from stock investment in past year. Investors' decision making by means of cognitive attribution led to investors being satisfied with investment decision regards to selling, buying, stock type, trading volume and have overall satisfaction with investing in stock market.

Such conditions indicate that the stock market started to recover from over two years long downtrend market as the YSX is actively promoting the stock market to attract more public companies to be listed. SECM is also relaxing the rules and regulations on both investors and companies by allowing resident foreigners to trade stocks and foreign joint ventures to be listed on YSX. These actions enhance investors cognitive attribution to actively invest in the stock market.

CHAPTER 5

CONCLUSION

The conclusion part of this study is based on chapter 4 which analyzed the effect of behavioral factors on investment decision towards the investment performance of investors in Yangon Stock Exchange. Distinctive facts from the previous chapters are abstracted and suggestions are made to improve furthermore. Findings, recommendations and needs for further research form this chapter will help to see the whole picture of the thesis.

5.1 Findings and Discussions

Behavioral finance attempts to identify and understand why investors make certain financial choices by studying their psychological biases and their link to stock market anomalies, such as severe rises or falls in stock price. Behavioral finance explores the characteristics of market participants which systematically affect investment decisions as well as market outcomes.

The primary data was collected from 218 respondents who actively invest in YSX. According to the survey results, good representation of female investors has been found. And also, financially flexible single investors are more actively invest in stock market. Most of the respondents are young adults and middle-aged persons who mostly invest in stock market actively because people at this age group have more risk-taking mindsets compare to other age groups. Most of the respondents are graduated and experienced investors since the opening of YSX with high monthly income and stock investments. But most of the respondents don't compile their own stock related research and rely on sources of investment advices from newspapers, internet, friends and family rather than retaining advice from financial advisors and professionals.

This study has two research objectives: analyzing the behavioral factors effecting investment decision and analyzing the effect of investment decision on investment performance of investors in YSX. The results show that behavioral factors do have effect on investment decision-making process. There are four behavioral factors effecting the investment decisions of investors at the Yangon Stock Exchange: herding, prospect, market and heuristic. The effect of these factors on the investor decision-making is in varying

degrees with herding factor having highest effect on investment decision followed by market, prospect and heuristic factors.

Regard to the behavioral factors effecting investment decision, it was broken down into two parts with two variables: diversification and attribution. According to the behavioral factors effecting diversification analysis, herding, market and heuristic factors have positive significant effect on diversification. These results indicate that investors tend to suppress their own beliefs in favor of the market consensus and strongly follow investment herd in order to reduces risk as the investment of any kind will be diverse to every investor in the herd. Investors highly agree that the investment diversification is significantly affected by access to market information, past trends, analysis of listed company's customer preference, price changes and over reaction to those market conditions. These types of behavioral actions can be reflected by stock prices of FMI and MTSH. These stocks are the first two listed stocks in YSX and created investment herd. Investors excessively bought and sell these stocks and their prices jumped upward in first months of listing and provided high return rates. Also, investors become anchored to historical performance of companies which deviate from their trends of past performance. The investors, who are exposed to availability bias and gambler's fallacy, invest in wrong stocks for their portfolio by basing their buying decision on insufficient past data.

According to the behavioral factors effecting attribution analysis, herding and market factors have significant effect and positive correlations with attribution. These results indicate that the attributed decisions of investors are enhanced by the consensus information on how other investors in same situation and same stimulus behave and follows other investors decision as a herd by means of buying, selling, stock type, trading volume and speed of herding and are also enhanced by market information, past trends, analysis of listed company's customer preference, price changes and over reaction to those market conditions. These types of behavioral actions have effect on investors cognitive preference to invest in highly popular stocks such as FMI and MTSH and ignore possible returns from other stocks. These conditions and behaviors create low trading activities in stocks such as MCB, FPB and TMH which cannot enhance attributive decisions of investors with standardized quality information disclosure compare to first two stocks.

Regard to the analysis of the effect of investment decision on investment performance by means of diversification and attribution to the return rate and satisfaction level, attribution variable has significant effect and positive correlations with investment

performance while the diversification variable has no significant effect on investment performance. These results indicate that investor achieve expected return rate from stock investment, achieve equal or higher return rate compare to low risk investment avenues, achieve equal or higher return rate compare to traditional investment avenues, achieve increased revenue or cash flow growth from stock investment in past year. This led to investors being satisfied with investment decision regards to selling and buying of stocks, satisfied with investment decision regards to choosing stock type and volume and have overall satisfaction with investing in stock market due to the engagement of cognitive attribution rather than diversification These conditions indicate that the stock market started to recover from over two years long downtrend market due to the relaxation of rules and regulations by SECM on both investors and companies by allowing resident foreigners to trade stocks and foreign joint ventures to be listed. This combined with YSX actively promoting the stock market to attract more public companies enhanced investors cognitive attribution to actively invest in the stock market and results in 2019 being the second-best year of YSX after 2016.

5.2 Suggestions and Recommendations

The role of stock market as a center of securities trading is to raise capital for investment in long term assets as it is one of the most important instruments in free market economy. Investors in Myanmar stock market need to have tolerance to current market as the market itself is not mature yet and financial literacy of wealth management is still low among local population who only experienced limited investment avenues before the revived capital market.

Regard to the behavioral factors, especially regarding to herding, the presence of herd behavior suggest that the quality of information disclosure has not been optimal yet in current market. Evidence of herd behavior suggests that the government economic policies, involvement and reforms have not proven their desired effects on stock investors and YSX. Investors need to choose good investment partners or alliance to consider as references for their investments. SECM must continue their effort to enforce standardized quality information from listed companies.

For the prospect factor, recommendations to investors is that they need to consider carefully before making investment decisions, but must not care too much about the prior

loss for their later investment decisions. This can limit the good chances of investment and impact badly the psychology of the investors and lead to bad investment performance just like in YSX's downtrend market of 2017 and 2018. Besides, the investors need to reduce their regret in investment by selling decreasing stocks and buying increasing ones. Finally, the investors must not divide their treatment of investment portfolios separately because each element of the portfolio may have a strict relation to the others and the treating each element as an independence can be result in bad investment performance.

For the market factor, investors must consider various factors before choosing investment avenues. Apart from behavioral factors discussed by the study, investors also need to consider the nature of investment avenues and its past performance in the market. Similarly, investors need to invest with the objective of long term investing rather than for short term gains. Investors can start less risky investments like government bonds and after developing a good knowledge of stock markets can go for equity investments and diversify their portfolios.

For the heuristic factor, investors can only be overconfident at an acceptable level to utilize their skills and knowledge in certain circumstances to improve the investment results. Investors are very reactive to the market conditions. However, overconfident investors tend to underestimate the associated risks of active stock investment, which can affect badly to their investment result.

Regard to the behavioral factors effecting investment decision by means of diversification and attribution, especially with diversification, recommendation is that there are many benefits to diversification and some downsides as well such as difficulty to manage a diverse portfolio without the help of finance professionals if the investor have multiple holdings and investments. But investors must aware that not all investment vehicles cost the same, so buying and selling may be expensive, from transaction fees to brokerage charges. And since higher risk comes with higher rewards, investors may end up limiting their outcomes themselves. Therefore, investors need to diversify across the different investment avenues. It's also essential to differentiate among diverse asset classes. Different assets such as stocks and bonds will not react or respond in the uniform way to hostile incidents. When another market swing occurs in Myanmar stock market, investors can reduce their portfolio sensitivity and financial exposures to market downtrend by creating combinations of asset classes.

Regard to the behavioral factors effecting attribution analysis, recommendation is that by applying cognitive attributed decision making, current investors are falling for a short-term investment stock just by looking at high trade volumes and end up with the stock that is not in fact a long-term investment, such as new initial public offerings. Most investors agree that they would identify the listed company that engages in heavy advertising and buy that stock. There is a frequent market rush for stocks that are outperforming market, frequently advertised stocks and high trading volume stocks. Therefore, investors must do deep dive equity research themselves or at least refer to the reports issued by securities companies and financial institution before making cognitive decisions. This can lead to improved performance and risk management for YSX investors.

Regard to the analysis of the effect of investment decision on investment performance, recommendation is that investors need to be serious about diversifying as it is not significant with performance in this study. Investors need to do asset allocation and diversification which add multiple asset classes that are different in nature to a portfolio with an appropriate percentage allocation to each class. Because asset classes have distinctive connections with one another, an effective mix can noticeably lower the overall portfolio risk and increase the expected return.

While equity stock market does carry a higher risk than traditional debt market, a manageable combination of the two in a portfolio can offer an attractive return with low volatility. And also, investors must think of long-term and continue investing in their portfolios no matter what the market is doing. Both uptrend bull markets and downtrend bear markets can cause investors to be hesitant to continue investing. During bull markets like 2016, strong investment returns can easily convince investors that continued investing is no longer needed. During bear markets like 2017 and 2018, investors were convinced that continued investing is not good. Both of these assumptions are not completely true.

Investing during an uptrend bull market will not only boost investment returns to grow, but it can also provide investors with fresh capital for more investments. Continuing investment during a downtrend bear market is even more important. If investment is falling in value due to negative returns, continue investing may be the only factor that minimizes the decline of investment value. The fact that the stock market in Myanmar is still in developing stage and country's current economic condition presents opportunities which allows investors to buy stocks at deep discounts and can reap better returns when market begins to move upward.

5.3 Needs for Further Research

This study is limited only to individual investors in Yangon Stock Exchange. Further research is necessary for investors to acquire total picture of Myanmar stock market. Institutional investors also need to be investigated about their behavioral factors which affect the YSX and country's capital market as well. Although the sample size is relatively high with 218 investors and satisfy the requirements of statistical methods. However, it is suggested to have a larger sample size in further research to reflect more accuracy on the realistic situation of YSX. Behavioral finance and its measurements are very new to investors in YSX. There is also limited number of references for applications of behavioral finance in developing countries.

Behavioral finance is a large and relatively new field which present limitless of fresh opportunities and challenges ahead. There's need to be deeper and wider research into behavioral factors by thoroughly researching each variable from every behavioral factor need to be researched thoroughly to analyze their impact on investment decision making. The findings in this study would help regulators and government policymakers and stakeholders of stock market in assisting them to understand the role of behavioral factors have on investment decision of investors This can lead to more efficient stock market that can help develop the country's economy in long run.

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APPENDIX 1

Survey Questionnaire

The following survey questionnaire aims to analyze the behavioral factors effecting investment decision of investors in Yangon Stock Exchange and analyze the effect of investment decision on investment performance. The data obtained from this survey will be used exclusively for academic purposes and will be treated with strict confidence.

Part 1: Profile of Respondent

Please tick [√] the appropriate answer for each of the following questions.

1. Gender

   [ ] Male

   [ ] Female

2. Age

   [ ] Below 21

   [ ] 21 to 30

   [ ] 31 to 40

   [ ] 41 to 50

   [ ] Above 51

3. Marital Status

   [ ] Single
   [ ] Married

4. Education

   [ ] High School

   [ ] Undergraduate

   [ ] Bachelor

   [ ] Master

5. Years of Investment Experience

[ ] Below 1 year

[ ] 1 to 3 years

[ ] Above 3 years

6. Monthly Income (MMK)

[ ] Below 300,000

[ ] 300,000 to 1,000,000

[ ] 1,000,000 to 2,000,000

[ ] Above 2,000,000

7. Amount of Investment (MMK)

[ ] Below 300,000

[ ] 300,000 to 1,000,000

[ ] 1,000,000 to 2,000,000

[ ] Above 2,000,000

8. Source of Investment Advice

[ ] Newspapers

[ ] Internet

[ ] Friends & Family

[ ] Finance Professionals

[ ] Financial Advisors

For the following part 2, 3 and 4, please circle the number to indicate the extent to which you agree with the following statements.

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

Part 2: Behavioral Factors

	A. Herding Factor	1	2	3	4	5
1.	Impact of other investors' stock buying decision.					
2.	Impact of other investors' stock selling decision.					
3.	Impact of other investors' choosing stock type decision.					
4.	Impact of other investors' trading stock volume decision.					
5.	Quick reaction to changes of other investors' decisions.					

	B. Prospect Factor	1	2	3	4	5
1.	Risk seeking due to prior gain.					
2.	Risk aversion due to prior loss.					
3.	Regret aversion due to premature sale of value-increased shares and holding on value-decreased shares.					
4.	Ignorance of connection between investment possibilities.					
5.	Separate treatment of elements in investment portfolio.					

	C. Market Factor	1	2	3	4	5
1.	Careful consideration of stock price changes					
2.	Importance of market information					
3.	Consideration of past trends of stocks					
4.	Analyzing listed company's customer preference before investing.					
5.	Over reaction to stock price changes.					

	D. Heuristic Factor	1	2	3	4	5
1.	Having overconfidence on outperforming the market.					
2.	Having gambler's fallacy on anticipating the end result.					
3.	Anchoring by forecasting future price changes based on recent prices.					
4.	Anchoring by relying on previous investment experience for next investment.					
5.	Having availability bias on buying stocks with more available information.					

Part 3: Investment Decision

	A. Diversification	1	2	3	4	5
1.	Intention to put half of investment in stock market.					
2.	Analyzing the effect of making risky investment compare to benefits provided by it.					
3.	Choosing less risky alternatives to gain financial security.					
4.	Investing in stock market due to its liquidity.					
5.	Having no concerns for fluctuations in the market.					

	B. Attribution	1	2	3	4	5
1.	Making investment decision based on listed company's fundamentals.					
2.	Investing in stocks that have high trading volumes.					
3.	Preference to invest in stocks that are frequently advertised or cited in news.					
4.	Investing in stocks that recently outperformed the market					
5.	Investing in recent down trend stocks with the expectation of future recovery					

Part 4: Investment Performance

A. Return Rate and Satisfaction Level		1	2	3	4	5
1.	Achieving expected return rate from stock investment.					
2.	Achieving equal or higher return rate compare to low risk investment avenues (Bank Saving Rate, Bank Fixed Deposit, etc.).					
3.	Achieving equal or higher return rate compare to traditional investment avenues US Dollar, Gold, etc.).					
4.	Achieving increased revenue or cash flow growth from stock investment in past year.					
5.	Satisfy with investment decision regards to selling and buying of stocks.					
6.	Satisfy with investment decision regards to choosing stock type and volume.					
7.	Overall satisfaction with investing in stock market.					

APPENDIX 2

SPSS Regression Calculation Results

Analysis on the Effect of Behavioral Factors on Diversification

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.850[a]	.723	.718	.388	1.921

a. Predictors: (Constant), Heuristic Mean, Prospect Mean, Market Mean, Herding Mean

b. Dependent Variable: Diversification Mean

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83.419	4	20.855	138.846	.000[b]
	Residual	31.993	213	.150		
	Total	115.412	217			

a. Dependent Variable: Diversification Mean

b. Predictors: (Constant), Heuristic Mean, Prospect Mean, Market Mean, Herding Mean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.361	0.156		2.307	0.022		
	Herding	0.460	0.068	0.450	6.808	0.000	0.299	3.35
	Prospect	-0.009	0.05	-0.010	-0.181	0.856	0.437	2.287
	Market	0.275	0.061	0.279	4.539	0.000	0.345	2.898
	Heuristic	0.201	0.063	0.204	3.185	0.002	0.318	3.141

a. Dependent Variable: Diversification Mean

Analysis on the Effect of Behavioral Factors on Attribution

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.850[a]	.722	.716	.363	2.014

a. Predictors: (Constant), Heuristic Mean, Prospect Mean, Market Mean, Herding Mean

b. Dependent Variable: Attribution Mean

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72.635	4	18.159	138.067	.000[b]
	Residual	28.014	213	.132		
	Total	100.649	217			

a. Dependent Variable: Attribution Mean

b. Predictors: (Constant), Heuristic Mean, Prospect Mean, Market Mean, Herding Mean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.561	0.146		3.836	0.000		
	Herding	0.495	0.063	0.518	7.833	0.000	0.299	3.350
	Prospect	-0.054	0.047	-0.063	-1.159	0.248	0.437	2.287
	Market	0.417	0.057	0.453	7.354	0.000	0.345	2.898
	Heuristic	-0.014	0.059	-0.015	-0.236	0.813	0.318	3.141

a. Dependent Variable: Attribution Mean

Analysis on the Effect of Investment Decision on Investment Performance

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.894[a]	.799	.798	.302	1.971

a. Predictors: (Constant), Attribution Mean, Diversification Mean

b. Dependent Variable: Return Rate and Satisfaction Level Mean

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.106	2	39.053	428.656	.000[b]
	Residual	19.588	215	.091		
	Total	97.694	217			

a. Dependent Variable: Return Rate and Satisfaction Level Mean

b. Predictors: (Constant), Attribution Mean, Diversification Mean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.556	0.119		4.684	0.000		
	Diversification	0.079	0.071	0.086	1.109	0.269	0.155	6.443
	Attribution	0.802	0.076	0.815	10.508	0.000	0.155	6.443

a. Dependent Variable: Return Rate and Satisfaction Level Mean