"Regular price fluctuations in capital market: Investors behavior with their portfolio scenario and its impact on the market"

Internship report on

"Regular price fluctuations in capital market: Investors behavior with their portfolio scenario and its impact on the market"



Submitted to the School of Business & Economics

United International University (UIU)

Under the Supervision of

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8th June, 2020

Letter of Transmittal

June 08, 2020.

Eliza Huq,

Assistant Professor,

School of Business & Economics

United International University

Subject: Submission of the Internship Report.

Dear Madam,

With due respect, I would like to report you that you assigned me with an internship report on **“Regular price fluctuations in capital market: Investors behavior with their portfolio scenario and its impact on the market”** for completing my undergraduate degree of Bachelor of Business Administration from the School of Business & Economics, United International University. I have applied my best effort to make this report within your given guidelines. I have tried my best to work on it and to create a successful internship report.

I earnestly hope that this internship report will meet your specifications and satisfaction.



Sincerely yours,

Majharul Islam Suhan

Student ID: 111161002

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Declaration of Statement of Authorship

I do hereby declare that this internship report entitled **“Regular price fluctuations in capital market: Investors behavior with their portfolio scenario and its impact on the market.”** is uniquely prepared and submitted by me.

I also confirm that the report is only prepared for my academic requirement and not for other purposes. I also assure that this report was not submitted to any other universities or institutions before.



Majharul Islam Suhan

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Acknowledgement

First of all, I wish to express my gratitude to the almighty for giving me the strength to perform my responsibilities as an intern and complete the report within the stipulated time.

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Certificate of Supervision of Research

Certificate

This is to certify that, Majharul Islam Suhan has worked under my supervision in preparing the internship report entitled **“Regular price fluctuations in capital market: Investors behavior with their portfolio scenario and its impact on the market”** submitted in fulfillment of the requirement for the award of the degree of Bachelor of Business Administration in the School of Business & Economics, United International University. This report is prepared with sincerity and dedication carried out by Majharul Islam Suhan alone and to the best of my knowledge.

June 08, 2020

Supervisor

Eliza Huq

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Executive summery

Investment means to put money in any endeavor for additional income. It seems to be fascinating to many individuals because through investment they can earn more money than investing in a bank. But the profit and loss everything depends upon the individual. There can be two types of investor, one, who invest and trade by himself. Another one is one who invest and gives the permission of trading to any merchant bank. In case of individual investor price fluctuation of stocks is a common phenomenon. Investors act differently based on their age, years of experience, gender, professional degree qualification, portfolio size and etc. Investor may get biased based on behavioral psychological factors like overconfidence, herd behavior, optimistic or pessimistic, risk appetite and cognitive bias. On the other hand, decision may differ for any economic factor like, firm belief in profitability, positive or negative economic situation/impact. The study is conducted on 35 investors, listed in DSE in association with IDLC Investments Limited. Responses are collected from them and analyzed and compared based on independent and dependent variables. Responses data are run through SPSS where correlation, one-way ANOVA, mean, standard deviation, skewness, kurtosis and Cronbach’s alpha is calculated. It is seen that the young aged people are tend to be more affected than the other group of people. The most aged person tries to hold a steady trading environment so that they don’t take risky decision and do not involve in complexity. Women are more sensitive than men in case of any rumor or positive/negative economic situation. People with lot of experience show optimistic behavior and they tend to believe their own calculation rather than following others. Investors with professional degrees are the most talented people in the respective field. They value their own calculation, knowledge and gut feelings.

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Chapter-1

Introduction

# Chapter 1

# Introduction

## Background of the Study

A stock market is also known as equity market or share market where buyers and sellers trade stocks among themselves. Stocks determine the ownership claim of a business company. Among here securities listed on public stock exchange and privately traded securities are included. Equity Crowdfunding platform is the way to sell shares of private companies to the investors. Main aim of the stock market is to allow public trade and gather additional fund from the public for company expansion. In our country we also have two stock exchanges to carry out the function of stock market in our economy. One is DSE; Dhaka Stock Exchange and another is CSE; Chittagong Stock Exchange. DSE actually established in 1954 but with a different name. After the independence in 1971, DSE started its function in 16 August, 1976. Currently, no of listed companies under DSE are 589 and has a market cap of $47.34 billion. Another stock exchange is located in Chittagong and it was established in 1995. And CSE has a market cap of $30 billion. (Wikipedia, 2020)

There are number of investors who are associated with the trading in this two stock exchange. Individual investors along with institutional investors take part in the investment and trade through different brokerage house and merchant banks. The share price of the listed companies may fluctuate due to various factors. Investors have to trade based on the predicted outcome from their invested share. Investors have to face both psychological factor and economical factor which may impact on their decision making. Investors get biased toward any factor and change their decision based on that factor. Investors of different age, gender, educational qualification act differently in different scenarios and their decision may differ from one another based on their perception.

This paper tries to find out the psychological and economic factors which may affect the decision process of the investors, and the impact of each factors on different age, gender or educational qualified people. The study is based on the data received from IDLC Investment Limited and also from the responses from the individual investors. Analyzing those data and comparing with the psychological biases and economic factors decision will be made.(Exchange, 2020)(Exchange C. S., 2020)

1.2 Problem Statement

This report is about the relation between the daily fluctuation of price and the investors. Previously many reports are published about the market crash and the reason behind the market crash. But price fluctuation is a common phenomenon in share market and people deal the situation differently. Their decisions of buying or selling shares depend on different factors and also the size of their portfolio. This report will show how people deal with this situation and also how investors take decision in time of market crash and also when market rise after a crash. The whole report will be written based on two types of investor’s portfolio Discretionary portfolio and Non- discretionary portfolio. The study will be done considering the psychological and economic factors and will try to find how influencing they are. In case of psychological factor, the biases of behavioral finance will be considered. In case of economical factor related economical component of stock market will be used.

## 1.3 Research Objectives

**Broad Objective**

The broad objective of the study is to find out the factors affecting price fluctuation in the capital market, how investors react according to their size of the portfolio and the overall impact on the market.

**Specific Objective**

* To find out the related factors behind price fluctuation.
* To find out how the investors take decisions.
* To find out the impact of behavioral finance in decision making.
* To find out the biasness they face while taking decision.
* To find out the power of rumor in the capital market.
* To find an overall impact on the market.

## 1.4 Research Question

* What are independent and dependent variables in the analysis?
* What the biasness involved in decision making?
* What are the economic factors which impact the decision making?
* How age, education, experience play a big role in decision making?
* How strong the psychological and economic factor may influence the decision process?
* What are the overall consequences on the economy?

## 1.5 Research Hypothesis

Hypothesis 1: H01: There is no significant influence of age over the decision of the investors.

H11: There is significant influence of age over the investor’s decision.

Hypothesis 2: H02: There is no significant influence of gender over investor’s decision.

H12: There is significant influence of gender over investor’s decision.

Hypothesis 3: H03: There is no significant influence of educational qualification over the investor’s decision.

H13: There is significant influence of educational qualification over the investor’s decision.

Hypothesis 4: H04: There is no significant influence of experience over investor’s decision.

H14: There is significant influence of experience over investor’s decision.

Hypothesis 5: H05: There is no significant influence of economic factor over the investor’s decision and their profit or loss.

H15: There is significant influence of economic factor over the investor’s decision and their profit or loss.

## 1.6 Significance of the study

This research will contribute in the sector of stock market and also behavioral finance, as the study will show the relation of psychological and economic factors with the decision of the investors in different situation. The investors in stock market take their decision based on different factors and predictions. This study will tell how they are dependent of any factor and how their personal qualification may have an impact over their decision-making process. The study will show the influence of the factors over the decision process and the overall impact on the market.

## 1.7 Limitation of the study

* Due to the outbreak of COVID-19 and immediate shutdown of office, data collection process hampered.
* It is difficult to spill out information from the investors as they are not so much willing to provide their personal facts.
* Only active participants of stock exchange were included in this study.
* The result may differ in large sample.
* Biasness of investors in filling questionnaire can also have an impact on the results.
* Most of the respondents were male, female responses are less in numbers that may influence the result.

Chapter-2

Organizational

Overview

# Chapter 2

# Organization Overview

Data has been collected from the IDLC Investments Limited and also the responses has been collected from the investors associated there.

## 2.1. IDLC Finance Limited

IDLC Finance Limited started their journey in 1985, as the first ever leasing company of Bangladesh. In 1995, IDLC was licensed as a Financial Institution by Bangladesh Bank, by following the validating of the Financial Institution Act 1993. Over the last two decades, IDLC has grown in fast pace with the country's transformation into a developing country and in the meantime, it has emerged as Bangladesh's leading multiproduct financial institution. (IDLC, 2020)

To enclose the evolving nature of the company, IDLC has changed its name to IDLC Finance Limited from earlier Industrial Development Leasing Company of Bangladesh Limited in August 2007. Since 1985, IDLC emerge as a pioneer leasing company of our country and continues to evolve as an outstanding financial solutions provider. IDLC are now offering customers, integrated and customized financial solutions everything under one roof. Their wide array of products and services range from retail products, such as home and car loans, corporate and SME products including lease and term loans, structured finance services ranging from syndications to capital restructuring and a complete suite of merchant banking and capital market services.

IDLC finance limited is currently the largest non-bank financial institution in this country with an approximate profit of BDT 1,780 million in 2016. This is the highest profit by any NBFI of the country. Be the largest is not that easy and IDLC had to go to through with lots of challenges and struggles for time being.(Akhtar, 2017)(Alam, 2011)

## 2.2 Subsidiaries

### 2.2.1. IDLC Securities Limited

IDLC Securities Limited, a fully owned subsidiary of IDLC, offers full-fledged international standard brokerage service for retail and institutional clients. It has seats on both Dhaka Stock Exchange Limited and Chittagong Stock Exchange Limited. It is also a Depository Participant (DP) of Central Depository Bangladesh Limited (CDBL). (IDLC, Capital Market, 2020)

### 2.2.2. IDLC Investments Limited

As advised by the Securities & Exchange Commission (SEC), the Company formed a separate subsidiary on May 19, 2010 in the name and style “IDLC Investments Limited” to transfer its existing merchant banking activities. The Company has applied to the SEC to transfer the existing merchant banking license of IDLC Finance Limited in the name of IDLC Investments Limited.

## 2.3. Vision

Every company runs and fights hard to achieve a bigger objective and for doing something precious to accomplish the ultimate satisfaction of growth and response from customers. One dream that make so much sense that leads each of the employee and leaders of an organization to a great level of dedication and inspires them to fulfill their individual mission. One line that can create so much significance that helps to aspire and let the organization see the bigger picture. The vision of IDLC- “We will be the best financial brand in the country.” Since the very beginning of their journey IDLC has been making every decisions and actions to make their vision real.

## 2.4. Mission

Organizations run based on their mission and it is the purpose of business for a group of people or target market. However, a mission is for whom and how the organization work based on the purpose. Mission Statement of IDLC is-

“We will focus on quality growth, superior customer experience and sustainable business practices.(IDLC, Our Philosophy, 2020)

## 2.5. Products and Services of IDLC

There are 5 main broad head of products. They are:

1. Debt Products
2. Investment Service
3. Merchant Banking and Portfolio Management Service
4. Liability Products
5. Corporate Service

This paper will focus on the Merchant banking and Portfolio management service and these all are under the subsidiary of IDLC Investments Limited. The products they offer are:

1. **Easy Invest**- Easy Invest is a discretionary portfolio management product that will build the client’s portfolio over time, with small investments at regular intervals. With a fee of Tk. 500 one can open an account.
2. **MAX Cap**- A personalized investment portfolio where the portfolio manager will follow client’s needs and preferences. MAXCAP is a personalized discretionary investment account designed for individuals and institutional clients. IDLC Investments Limited, your Portfolio Manager, will follow a disciplined investment process and structured approach to build your portfolio, tailored to your specific needs and constraints.
3. **Profit-loss Sharing Scheme**- is a discretionary portfolio management service where IDLC Investments Limited will manage client’s fund and take all investment decisions. This is a specific structured product where IDLC Investments Limited will be a partner of client’s investment with limited sharing as much as 30%. So, the ratio of the total investment will be 70:30, where client will invest 70% and IDLC 30%.
4. **Capital Protected Scheme**- is a discretionary portfolio management service where IDLC Investments Limited will manage client’s fund and take all investment decisions. This is a specific structured product that includes a capital guarantee of the initial investment amount up to a set percentage (100%).
5. **Portfolio Advisory Service-** is the specialized expert investment advisory arm of IDLC Investments Limited. It is a value-added service offered to our esteemed clients who seek to a high-quality portfolio management advisory and research support.

Clients can choose either of the plan to proceed to invest in the capital market and can profit through trading. To open an account client, need to fill up selected form and provide necessary information according to the demand of the form and associated officials. Without proper dissemination of information and documents account can’t be opened and the form will be returned to the client to be refilled. If there were document missing, the account will activate when the document will be received. The relationship manager, department officials find potential clients and convince them to invest in the capital market. And interested people come to the office to know the proper way of investment. IDLC also advertise their business through different events and business conferences.(IDLC, The Investment Professionals, 2020)

Chapter-3

Literature Review

# CHAPTER 3

# Literature Review

Several studies previously researched to find out the factors or reason underline price fluctuations in the stock market. And also, the decision pattern of the traders in times of the price fluctuation had been researched. Most of the research had been to find out the cause behind any crash of market. Researchers tend to discover the likely reason behind any specific year’s huge crash on any particular market. A very few researches were made about the investors behavior and the factors which can also affect the behavior in different situation. The behavioral finance took an excellent role in analyzing the decision-making process of the investors as well as helps to find out how many ways they are biased in any situation.

Recent studies, such as Bakar and Yi, (2016), show that investors in the markets are not always rational in their choices and that different factors may affect them when they make their funding decisions. Behavioral finance research the impact of psychological factors on the stock markets. Psychologists in this field include Edwards (1954, 1961), who is a pioneer in the challenge of behavioral selection theory, Daniel and Hirsheileifer (2015), and Tversky and Kahneman (1974). The most important papers were written by Tversky and Kahneman (1974) whose contribution to the discipline of the elements explaining the human behavior of decision making has had a huge impact on behavioral economics. Tversky and Kahneman (1979) in contrast numerous models of decision-making under hazard and uncertainty with economic fashions of rational behavior. According to behavioral finance, individual traders do no longer usually behave in their own pleasant interests. Behavioral finance presents a framework for grasp when and how humans make errors. Thaler (1990) believes that behavioral finance confirms that sure economic elements may also not be treated with rationality. Thus, behavioral finance combines concepts from the fields of individual and social theory to understand and highlight stock market performance. Birau (2011a, 2011b, 2012) pointed out that human feelings and emotions have a serious effect on investors’ decisions, and that inefficient markets can be explained through behavior economics. Mitroi and Oproiu (2014) pointed out that behavior bias impacts the relationship between risk and returns and so concluded that excessive risk is not correlated with high returns, which conflicts with finance theory. Bakar and Yi (2016) argue that behavioral finance studies have proved that individual investors do not behave rationally, but their decisions are affected by their psychological feelings. Numerous studies from ASEAN and Western countries have, in fact, established that psychological factors do have a relationship with an impact on the decision-making of investors with regard to the markets; for example, Akhtar and Batool (2012) regarding the Karachi, Lahore, and Islamabad Stock Exchanges; Phan and Zhou (2014) regarding the Vietnamese Stock Market; Riaz and Hunjra (2015) and Farooq, Afzal, Sohil & Sajid (2015) regarding the Pakistani Stock Market; Dhaoui (2015) regarding the Japanese, U.S., French, U.K., and Swiss Stock Markets; Shabgou and Mousavis (2016) regarding the stock exchange in Tabriz, Iran; and, finally, Gupta and Ahmed (2016) regarding the Indian Stock Market. Decision errors can be due to human mind behavior. Moreover, Camerer and Loewenstein (2004, p.3) stated that “behavioral economics increases the explanatory power of economics by providing it with more realistic psychological foundations”. There are four main psychological factors that affect individual investors’ decisions.

(Afaf, 2016)

## 3.1. Psychological Factor

This factor talks about human behavior, characteristics and the overall impact of those. Human feelings, thoughts, nature may trigger the attitude, thinking process and function of human mind. These psychological factors can influence human mind and also may impact on human mind to influence the decision of the investor. Psychologists also suggest that personal traits of person also trigger their decision according to their own.

### 3.1.1. Overconfidence

Overconfidence means when someone has more confidence in his/her abilities about some situation. They misjudge their abilities, knowledge, skills, and availability of information (Tapia & Yermo, 2007). It can be defined in many ways; some people not only think that they have and use their best skills but can also control the situations. In fact, they don’t consider the risks. People rated themselves higher than the average, i.e. investors think that they can control the market and outcome of their investment. Shiller (2000) said that people think that they know more than they can do. Odean (1998) said that investors who are overconfident think that they can choose stocks better than others. They think that they know the best time to enter and to exit the market, but in actual their returns are lower than the other investors. But on the other hand, Kyle and Wang (1997) said that overconfident investors can earn more than other investors (rational) as volume of transaction also increased because of them. Pulford and Colman (1997) described about the different confidence level in men and women. They said that men are more confident than women as woman have to work under many social pressures. Taylor and Brown (1988) said about confidence that people have unrealistic approach about themselves. They think they are better than others and think themselves to be superior in their decision.(Samina Gill, 2018)

### 3.1.2. Optimism

Optimism means that all will be better than the examination. It originates from overconfidence. People have positive feelings about everything. They hope for the good more than the actual. Investors think that market will go high in the future but this can’t be happening all the time. Unnecessary optimism can lead them to loss; can waste their money as well as time behind unrealistic goals. When investors think they can perform well, but they don’t, it can also lead them to frustration because they could not get that they are supposing. Gervais, Heaton, and Odean (2002) said that optimistic behavior is good for the market as it led investors to invest like when investors have positive feeling about their decision. Kahneman and Riepi (1998) said that unnecessary optimism can lead people to misjudge the changes that occur due to some bad situations in their life. Jaakko said that most of the individuals are affected by extra optimism instead of considering their financial expectations of their return.(Yathish Kumar, 2019)

### 3.1.3. Fear of loss

People are afraid of losing. Investors do not want to bear loss. Kabra, Prashant, and Dash (2010) finds out that even if there are chances of growth in market or worthy initial public offerings, some investors even then invest according to risk they can afford, e.g. risk averse investor will invest in fixed deposits, insurance policies, etc.

Prospect/loss aversion theory has also been proposed which states that people get even more depressed instead of getting any happier bearing similar loss amount.

Richard (2002) said investors behave irrationally because they are afraid of losses in future.

### 3.1.4. Herd behavior

Investors discuss about their investment with their relatives and friends and want to act on it.

Bikhchandani and Sharma (2000) said that some investors have impact of others on their decision-making instead of following their own strategies.

On the other hand, Obenberger (1994) said that investor do not take into consideration the analyst recommendation, family members, co-worker, brokerage house advices. They use valuation models to evaluate the prices of stocks before investing.(Md. Tariqur Rahman, 2011)

### 3.1.5. Positive attitude

Some investors are confident about their decision-making. They think they should take risk in order to earn more profits than others. Gervais et al. (2002) said that optimistic behavior is good for the market as it led investors to invest like when investors have positive feeling about their decision.

### 3.1.6. Consultancy effect

Investors are very conscious about their investment; they discuss and take advices from brokers in order to minimize risk on their investment. Krishnan and Booker (2002) said that investors taking advices from analyst’s recommendation reduces their disposition error in losses as well as gain.

## 3.2. Economic factors

Economic factors consist of the information that can affect the worth or value of a business or an investment. Economic factors can be those which you bear in your mind after manipulating or calculating the present and expected future value of an investment portfolio or any kind of business.(Mark KY Mak, 2017)

### 3.2.1. Overall performance of company

It means the analysis of a company’s performance that how a company meets its goals and objectives. It includes three things

1. Financial performance 2. Market performance 3. Shareholder value.

### 3.2.2. Price movement information

It means change or fluctuation in prices because of difference in demand and supply in a trading day. Suman and Warne (2012) explains that price fluctuations affect the pattern of investing of individual investors as mostly people are aware of stock exchange dealings. Shafi (2014) said in his research that information of fluctuations in the stock market, coverage in press, Information from Internet, Recent price movements, and Information about Government holders are important for investors. SCMRD (2005) studied about problem of individual investors and said that volatility in prices and manipulation is the main cause of worry for retail investors.

### 3.2.3. Risk aversion

Risk is uncertainty about their investment that whether it will give them profit or loss. Every investor takes risk according to his/her investment objectives (Rice, 2014). Shafi (2014) defines risk capacity as “Parameters of safety, liquidity, and capital appreciation, return and risk coverage.” Investors have different capacity to bear risk so they have different types of investments. So, investor has to do financial planning according to his/her requirement. Investors who want to generate higher return will invest in the securities with high risk, while risk avoiding investors will invest in securities with low risk hence result in low profits (Injodey & Alex, 2011). Brahmabhatt, Raghu Kumari, and Malekar (2012) find out that risk tolerance decreases with increase in age of investors.(Ngoc, 2013)

### 3.2.4. Risk taking capacity

Risk is uncertainty about their investment that whether it will give them profit or loss. Investor invests in volatile investment in order to get higher profits than average. Investors who want to generate higher return will invest in the securities with high risk, while risk avoiding investors will invest in securities with low risk hence results in low profits (Injodey & Alex, 2011). Nosic and Weber (2007) said in their research that three important determinants of risk-taking behavior can be “risk attitude, Beliefs and Risk Perception.”(Abul, 2019)

Chapter-4

Methodology

# CHAPTER 4

# Methodology

## 4.1. Study Area & Target Population

In this report, IDLC Investments Limited works as the prime data source. All the analysis and experience are taken from IDLC. Information about the investors, their trading history and the movements in share market is also collected from the company software. The other data are collected from annual report of companies, annual report of DSE and from other related papers. The responses used in this report are from the investors who are associated with IDLC Investments Limited. The responses will be evaluated based on recent market data.

## 4.2. Sampling Plan

The study carried out normally via the quantitative and qualitative method. But personal observation and face to face conversation of the investors can't bypass facts collection. Secondary information also collected to support the primary data and to reach a certain conclusion. The study is mainly based on the primary data collected from the company software and the responses collected from the investor associated with the company based on a questionnaire.

It is nearly impossible to collect responses from a lot of investors. In this study a desirable sample size has been maintained who can reflect the total size of the population. In this case, facts have been amassed from specific investors and also from consultants. The following sections temporarily talk about the steps accompanied in the sampling design.

* Target Population (Sampling unit, extent, time)
* Sampling technique
* Sample size and
* Execution

## 4.3. Target Population

Stock investors associated with IDLC Investment Limited are the main target. The investors are categorized primarily based on their portfolio size, transaction rate, age and years of association with the company.

## 4.4. Sampling Frame

There has been solely one stratum within every population of interest. One is from the investors and the other one is from the consultancy firms or the company. A sampling frame was accessible for the study.

## 4.5. Sampling Technique

The research will show the probability measure from the responses and also will find out human behavior nature. The responses from the sample will be compared with the different aspects of behavioral finance. So, it will be best to design a sample with diversification. A diversified sample size will force a better correlation of data and will show most correct outcome. The sampling is designed based on the age of the investors, from young to old, the portfolio size of the investors and the years of association with the company. Later on, the educational qualification and higher educational certificate will also be considered to analyze the data in different category to find out the most perfect result.

## 4.6. Sample size determination

The sample size is the statistical measure and the base of any analysis. The total analysis is done based on the size of the sample and the responses. Then findings and results are published based on the analysis. Size of the sample is determined by ‘n’ integer, which indicates the number of populations.

A large sample size may give so many diversified results and that may lead to vague conclusion. But a proper predetermined sample size will give a precise number of responses, as well as a structured result. To find out the sample size the following formula is used-

n = σ2Z2/D2

Where, n = sample size

σ = Standard deviation

D = Precision level

Z= value is taken based on level of confidence

It is assumed that, σ = 15

Z = 1.64 for 90% level of confidence

D = ±4

So, we get n = 152\*1.642/42

= 37.8225

= 38 (taking up to the next round figure)

Here the sample size is 38 but this research omitted 3 respondents because of incomplete responses in the questionnaire.

All the respondents are taken who are listed as an investor under IDLC Investments limited and who is a regular trader. Investors from DSE are considered because it is tough to get hold of the investors who trade solely under CSE. As DSE is a vast market place considering CSE and numbers of investors are also large in DSE, so, proper transparency of information and result will be seen. Investors are grouped and analyzed. Then they are categorized based on age, portfolio size and years of association with the company. Then a Google form link is send to them and a total of 35 proper responses are considered to analyze.

## 4.7. Sources and Method of Data Collection

Respondents are investors who have investment in DSE and are associated with IDLC Investments limited. A simple Google form questionnaire is send to them to collect their responses.

## 4.8. Analysis Plan

After collection of all necessary data, those have been analyzed in the following two ways:

**Subjective Analysis-** Qualitative data have been analyzed critically using judgment and knowledge gathered from various reports, articles as well as academic courses.

**Statistical Analysis-**The survey was mostly generating nominal, ordinal, interval and ratio data.

To analyze the response data from the investors appropriate statistical tool SPSS will be used. All the primary data from the responses will be noted and will be numerically placed in the SPSS data sheet for further calculation.

Frequency distribution and arithmetic mean of the respondents and percentage of the responses in different category will be used to analyze data. Z-test will be used in SPSS to find out the relation among the hypothesis. This analysis will show whether to reject the hypothesis or to accept the hypothesis. Cronbach’s alpha will be calculated as a reliability test of the responses.

**Formula of Arithmetic Mean**

=

Here,

∑ xi = summation of the data

N = total number of responses

**Formula of Standard Deviation**

Here,

= Standard deviation

N= No of Responses

= is a value in the data set

= mean of the data set

**Formula of the Cronbach’s Alpha**

Here,

N = the number of items

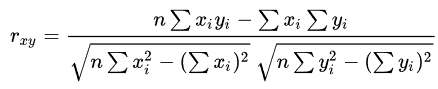
= is the average covariance between the items

= is the average variance

(BYJU, 2020)

**Formula of Pearson r correlation:**

Pearson *r* correlation is the most widely used correlation statistic to measure the degree of the relationship between linearly related variables. For example, Investors decision according to their age, their decision in accordance with the year of relationship they have in the stock market etc. This calculation will show how biased the investors in accordance with the behavioral finance psychological factor as well as economic factor. The formula of Pearson r correlation is:

[](http://www.statisticssolutions.com/wp-content/uploads/2019/09/ehtsht.png)

rxy = Pearson r correlation coefficient between x and y  
n = number of observations  
xi = value of x (for ith observation)  
yi = value of y (for ith observation)

(Solution, 2020)

Chapter-5

Data Analysis

& Findings

# Chapter 5

# Data Analysis& Findings

## 5.1 Frequency Findings

Under descriptive analysis in frequency table show individual criteria of participants have been analyzed to bring about the result in order of their percentages. The survey has been conducted on 35 individuals.

The responses have 5 age range and according to the responses 20 to 26 range of age representing 31.40% with a total number of 11 people. 27 to 33 range of age representing 17.1% with a total number of 6 people. 34 to 40 range of age representing 17.1% with a total number of 6 people. 41 to 50 range of age representing 20% with a total number of 7 people. 50+ range of age representing 14.3% with a total number of 5 people.

In case of Gender, 60% of the respondents are male and 40% of the respondents are female with a total number of 21 males and 14 females.

Considering years of experience in stock market as another frequency, beginning to 3 years range of experience representing 22.9% with a number of 8 people. 3 to 5 years range of experience representing also 22.9% with a total number of 8 people. 5 to 10 years range of experience representing 25.7% with a total number of 9 people. 10+ years range of experience representing 28.6% with a total number of 10 people.

Based on any extra educational degree, a single person representing 2.9% holding CIMA degree, another person also representing 2.9% holding CMA degree. 3 people are representing 8.6% holding ACCA degree. 2 persons are representing 5.7% holding CA degree and lastly 7 persons representing 20% holding CFA degree.

**Figure-** Respondents Age Range Percentage

**Figure-** Respondents Gender Percentage

**Figure-** Respondents Years of Experience in Stock Market Percentage

**Figure-** Respondents Professional Degree Percentage

## 5.2 Pearson’s Correlations

Pearson correlation is calculated to find out the relation between two variables. This study have two broad variables. They are behavioral psychological factor and economic factor. These two broad head has subheads which will help to find that if the investors are biased in their decision or not. And the whole decision will come based on seven questions. The correlation of the question responses to the factors are given below as per question:

**Question 1. Which is the most important factor that you base your decisions on when buying shares?**

This question finds out whether the investors are biased on overconfidence and herd behavior. Overconfidence is when the investors tend to follow own decision and think they have more knowledge than the other investors around them. On the other hand, Herd behavior represents investors who follow market trend. They don’t like to use their knowledge rather they follow what the other investors are doing around them.

From Appendix table A1, it is seen that, there is a linear negative correlation of -0.431, of the responses with the increase in age. Because the young people tend be biased mostly on herd behavior and also on overconfidence. Among age range, 20 to 26, in case of 11 respondents, 6 of them answered they will follow the market participants and fellow investors and 2 responds that they will ask the experts and follow fundamental analysis. This shows how they are biased on Herd behavior. 2 of the responses also show they will follow only the technical analysis, which indicated their biasness of overconfidence. But the more aged people tend to have more experience in the market as well as professional degree, so, they tend to have confidence and expertise over their knowledge as well as technical analysis. So, their consideration of technical analysis is not a sign of overconfidence rather it’s a sign of expertise and depth of their knowledge. Age range of 20 to 26 are showing 72.72% of herd behavior, age 27 to 33 shows 33.33% of herd behavior, age 34 to 40 shows 16.67% of herd behavior, age 41 to 50 shows 14.285% of herd behavior and lastly 50+ people shows 0% of herd behavior as they tend to follow their own knowledge, experience and calculations. Likewise, Gender shows a positive correlation of 0.273, experience show a positive correlation of 0.599 and professional degree shows a positive correlation of 0.675. It means with the increase in experience people shows less herd behavior and it’s the same for Professional degree holders that they understand the market and they have own knowledge to calculate.

**Figure-** Herd Behavior Percentage

**Question 2. When the market index is losing value daily, I do the following-**

This question indicates whether the respondents are optimistic or pessimistic in their decision-making process. Optimistic shows the investors are confident that the market index will go up and the price of the share will rise. When more investors become optimistic, they will cause the price of share to rise all on a sudden and the pessimistic investors work inversely here. According to the responses, the young aged people are showing more pessimistic behavior than the aged persons. At greater age people are being more optimistic and less pessimistic. Because of their prior knowledge and years of experience, they tend to understand the market more and act according to their calculation. The respondents show that if the number of experienced people is more in number in the market, the market will behave in an optimistic way and will tend to show a positive index. But if the scenario is different and presence of young people is more then, the market tends to behave negatively in a pessimistic way. From the SPSS analysis appendix table B1, age has a negative correlation of -0.358 to question 2 responses because young people tend to show more pessimistic behavior and with the increase in experience and knowledge, they tend to show more optimistic behavior later on. Likewise, from Appendix table B2, it is seen there is a positive correlation of gender at a point of 0.116, table B3 shows a positive correlation of 0.523 with years of experience and from table B4, 0.603 positive correlation is seen in case of professional degree. It indicates, people with professional degree and greater experience tend to understand the market more and they can calculate how the market is going to perform in the future. So, they do what they firmly believe and they don’t shift from one decision to another so quickly, which gives the market a steady situation and that makes them optimistic.

**Figure-** Optimistic Behavior Percentage

**Figure-** Pessimistic Behavior Percentage

**Question 3. As an investor, I would describe myself as follows-**

This question determines the risk appetite of the investors. It determines how much risk averse a person is or how much a person is tend to take risk in case of any investment. In case of different situation, the investors act different in taking risks and it has a strong correlation with age, years of experience, gender and also professional qualification. SPSS analysis suggests that people tend to take less risk when they grow older. From appendix table C1, it is seen there is a linear negative correlation of -.090 to question 3, which justify the statement about young to old people. From 20 to 26, risk taking people percentage is 36.36%. People of age 27-33 represents 16.67%, 34 to 40 range people represent 33.33%, 41-50 age range of people shows 28.57% and 50+ age range of people are showing 0% of risk-taking behavior. On the other hand, appendix table C2 shows a correlation of 0.184, which represent a strong positive relation and shows women are less risk taking than men. Appendix table C3 shows, a negative correlation of -0.296 with years of experience shows people understand the market more with passage of year and they tend to take less risk when they grow older. Appendix table C4, shows that with knowledge of a professional degree, people hold greater knowledge and calculation capacity and they can predict more precisely, so they can take more justified risk than any other person. Professional degree has a positive correlation of 0.566.

**Figure-** Risk taking Percentage

**Question 4. Do you show any quick response to the market rumors about good or bad news?**

Responses from this question determine the psychological behavioral bias named, “cognitive bias”. It shows how a human react or process when they obtain any information. Do they act like the regular investors or do they calculate and determine the depth of the information, predict the changes and take decision accordingly? If they change their mind immediately after getting any information, they are cognitive biased. Respondents shows that young people are tend to more cognitive biased with a percentage of 45.45% and in second place 50+ people has a biasness of 40%. It’s because of their age and they don’t try to follow complexity rather they tend to follow a safe play strategy. That’s why when they hear any news of upcoming fall they tend to follow the generalized decision process. 34 to 40 people shows a percentage of 33.33% and 41-50 age range shows the least 28.57%. Appendix table D2 shows a positive correlation of 0.132 which indicate that women tend to respond to any rumor more than men. Table D3 and D4 shows negative correlation of -0.450 and -0.686 respectively which represents that professional degree holder and experienced people tend to be less biased to any rumor rather they use their own calculation to analyze any information.

**Figure-** Cognitive Bias Percentage

**Question 5. What you intend to do about a blue-chip share even if it continues losing price?**

When there is belief of consistent profitability from a particular share people tend to hold it. But when the price of that share falls people reacts differently. Generally, a blue chip is believed to be profitable most of the time. But the price may fall and people’s decision may also change. Young people and old people tend to hold the blue-chip share as they may not want to face any complexity and they firmly believe that the price will obviously rise in near future. 20 to 26 age range shows 63.63%, 50+ people shows 80%, 27 to 34 age range shows 50% that they will hold the blue-chip shares. Gender has a correlation of 0.190 showing women tend to hold the shares more than men. Appendix table E3, E4 shows a negative correlation that people tend to sell the blue-chip shares in order to invest in other profitable shares with a correlation of -0.435 and -0.587 respectively.

**Figure-**Profitability factor Percentage

**Question 6. What is your decision pattern in case of a performing share?**

When there is a positive economic attitude, investors tend to do two things. One, they sell the shares early and grab the profit and they have a fear in mind that they may miss the profit if they don’t sell early. This happens to the people who lack in knowledge and experience. When anyone has much knowledge about a particular share and also has years of experience about how the market works, they tend to hold it to gain more profit and they even buy more share of the same company to make more profit from it. Young people of age 20 to 26 has a tendency of 72.72% about selling the share early. 27 to 34 age people has a percentage of 66.67%, 34 to 40 has a percentage of 50%, 41 to 50 age range has a percentage of 28.57% and lastly 50+ people has a percentage of 40%. Appendix table F1, correlation shows a strong negative relation to age of -0.074 which tells that with the increase in age people less likely to sell the shares early. Experience shows a positive correlation of 0.363 in table F3 which indicates people with higher experience analyze more and they don’t sell early. Same goes with professional degree which shows a correlation of 0.523 in table F4.

**Figure-** Positive Economic Situation Percentage

**Question 7. What is your decision pattern in case of a non-performing share?**

When a share is not performing well or at a time of sudden fall in price, people may sell early with a fear of losing more value or they may hold it until the price rise again. People have different need and nature. Some investors are short term and they are more likely to sell early. On the other hand, long term investors will likely to hold the share until it comes to a profitable position. Young people tend to sell the non-performing stocks immediately and invest in elsewhere. 20 to 26 age range believe previous statement at a percentage of 81.82%, 27 to 33 at a percentage of 66.67%, 34 to 40 at a percentage of 33.33%, 41 to 50 at a percentage of 28.57%, and 50+ people at a percentage of 40%. Age has a negative correlation of -0.240 shown in Appendix table G1, which indicates people with more age tend to trade the performing one and some of the investors even buy the non-performing one because they calculated that the price of the share will rise soon. Gender, experience and professional degree all shows positive correlation of 0.270, 0.470 and 0.725 respectively.

(TUTORIALS, 2020)

**Figure-** Negative Economic Situation Percentage

## 5.3One-way ANOVA test

The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of three or more independent groups. This study will compare four independent factors separately and will find out how the factor is significant or not. The independent factors are-

1. Age
2. Gender
3. Years of Experience
4. Professional Degree

The dependent factors are-

1**. Behavioral Psychological Factor**

* Overconfidence or Herd Behavior
* Optimistic or Pessimistic Behavior
* Risk appetite
* Cognitive Bias

1. **Economical Factor**

* Consistent believe in profitability
* Positive economic attitude
* Negative economic attitude

Analysis will show that how significant the independent variables are to the dependent ones. A value less than 0.05 considered highly significant. Which interprets that, any change in the independent variable will also impact on the result of dependent variables.(University, 2020)

### 5.3.1 Age to dependent variables

|  |  |  |  |
| --- | --- | --- | --- |
| Item | df | F | Sig |
| Q1 | 4 | 2.773 | .045 |
| Q2 | 4 | 1.170 | .044 |
| Q3 | 4 | .352 | .008 |
| Q4 | 4 | .673 | .016 |
| Q5 | 4 | .588 | .024 |
| Q6 | 4 | .237 | .015 |
| Q7 | 4 | .695 | .002 |

**Table-** Age to Dependent variables ANOVA test

Test shows that age has a significant impact on the variables as all the values are comparatively less than 0.05. So, any change in age forces an impact to the change of data of dependent variables.

### 5.3.2 Gender to dependent variables

|  |  |  |  |
| --- | --- | --- | --- |
| Item | df | F | Sig |
| Q1 | 1 | 2.665 | .032 |
| Q2 | 1 | .451 | .098 |
| Q3 | 1 | 1.160 | .028 |
| Q4 | 1 | .587 | .004 |
| Q5 | 1 | 1.242 | .027 |
| Q6 | 1 | 2.601 | .011 |
| Q7 | 1 | 2.601 | .016 |

**Table-** Gender to Dependent variables ANOVA test

Test shows that gender also has a significant impact on the variables as all the values are comparatively less than 0.05. So, any change in gender forces an impact to the change of data of dependent variables. But in some question gender doesn’t have that much significance, which means any change in gender doesn’t affect the variable that much. That is gender doesn’t have that much influence over optimistic vs. pessimistic behavior of the investors.

### 5.3.3 Years of experience to dependent variables

|  |  |  |  |
| --- | --- | --- | --- |
| Item | df | F | Sig |
| Q1 | 3 | 11.648 | 0.001 |
| Q2 | 3 | 4.754 | .008 |
| Q3 | 3 | 2.194 | .010 |
| Q4 | 3 | 3.184 | .037 |
| Q5 | 3 | 3.026 | .044 |
| Q6 | 3 | 3.349 | .032 |
| Q7 | 3 | 4.400 | .011 |

**Table-** Years of experience to Dependent variables ANOVA test

The one-way ANOVA Test shows that years of experience has a significant impact on the variables as all the values are comparatively less than 0.05. So, any change in years of experience forces an impact to the change of data of dependent variables.

### 5.3.4 Professional Degree to dependent variables

|  |  |  |  |
| --- | --- | --- | --- |
| Item | df | F | Sig |
| Q1 | 5 | 7.257 | 0.00 |
| Q2 | 5 | 4.448 | .004 |
| Q3 | 5 | 4.271 | .005 |
| Q4 | 5 | 6.639 | .000 |
| Q5 | 5 | 4.038 | .007 |
| Q6 | 5 | 5.115 | .002 |
| Q7 | 5 | 13.410 | .000 |

**Table-** Professional Degree to Dependent variables ANOVA test

The one-way ANOVA Test shows that professional degree has a significant impact on the variables as all the values are comparatively less than 0.05. So, any change in professional degree forces an impact to the change of data of dependent variables.

## 5.4 Mean & Standard Deviation

Mean show the average responses of the respondents per question basis and the calculation of standard deviation show how distorted the values are compared to the mean. Standard deviation will show how related the data set are to the questionnaire response. The data set are more related if the standard deviation and the mean value is close with respect to each element like age, gender, years of experience and professional degree. Most of the standard deviation data are close to the mean which says the data are related and the hypothesis about the biasness of psychological factor and economic factor are positively related.

|  |  |  |
| --- | --- | --- |
| Item | Mean | Standard Deviation |
| Q1 | 2.2000 | 1.25558 |
| Q2 | 2.0857 | 1.12122 |
| Q3 | 1.9429 | 1.02736 |
| Q4 | 3.4571 | 1.52128 |
| Q5 | 1.4000 | .49705 |
| Q6 | 1.6571 | .48159 |
| Q7 | 1.6571 | .48159 |

Table- Data of Mean and Standard Deviation

## 5.5 Skewness and kurtosis

Skewness shows the curve of data from a data set showing the variation of the values of the data. And represent how close or how distorted the curve is from the two lowest points or from the base. It is the degree of distortion from the symmetrical bell curve or the normal distribution. If the skewness is between -0.5 and +0.5, the distribution is approximately symmetric. In this study the skewness is between -0.492 to +0.537, which is showing that the data is approximately symmetric.

On the other hand, kurtosis consider the center of the data distribution and tells how data are distorted both the side. If the value is between -2 to +2 it shows an acceptable range. And in this study, it is seen that the -0.879 to -1.932, shows an acceptable range of distribution.

|  |  |  |
| --- | --- | --- |
| Items | Skewness | Kurtosis |
| Age | 0.230 | -1.375 |
| Gender | 0.427 | -1.932 |
| Experience | -0.135 | -1.389 |
| Degree | 0.481 | -1.232 |
| Q1 | 0.450 | -1.487 |
| Q2 | 0.487 | -1.206 |
| Q3 | 0.537 | -0.879 |
| Q4 | -0.419 | -1.396 |
| Q5 | 0.427 | -1.932 |
| Q6 | -0.492 | -1.617 |
| Q7 | -0.492 | -1.617 |

**Table-** Data of Skewness and Kurtosis.

## 5.6 Cronbach’s alpha

This test is run in SPSS to find out the reliability of the questionnaires and the responses. A value of close to 1 is considers as the most reliable data. That is 0.99 is the most reliable value of Cronbach’s alpha analysis. According to the data and calculation it is seen that the Cronbach’s alpha value is 0.893 which shows great reliability of data set. And on the basis of standardized item the value is 0.929. It proves the overall reliability of the questionnaire is reliable.

|  |  |  |
| --- | --- | --- |
| **Reliability Statistics** | | |
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | No. of Items |
| 0.893 | 0.929 | 07 |

**Table-** Cronbach’s alpha analysis value.

Chapter-6

Results &

Summary of Findings

# CHAPTER 6

# Summary of Findings and Results

## 6.1 Findings Summary

The correlation analysis in SPSS shows that the questions which representing the dependent variables are correlated to the independent variables positively or negatively which shows the extent to their biasness and reason, nature of the decision-making process of the investors.

The one-way ANOVA shows at what extent the independent variables can have impact over the dependent variables.

The mean and the standard deviation are close in calculation which shows a significant distribution of data.

The skewness shows that the data are symmetric and kurtosis shows that the data are in between acceptable range of distribution.

Lastly the Cronbach’s alpha test shows how reliable the question set is and the reliability of the responses.

## 6.2 Results

The total analysis was done by different method and the main objective is to find out how the investors take decision in different situation and what are the factors influencing their decision making process. Two different factors are taken in the calculation to find out the best possible outcome. It is seen that; investors are biased on both the behavioral psychological factor as well as economical factor. Study suggests that the biasness is greater among the young people who are in the age range of 20 to 26 and also in the range of 26 to 34. It is also seen the most aged person wants a stable trading situation so for that they may react quickly to avoid any sort of risk or loss, so, they also shown mentionable biasness in their decision process. In case of gender, it is seen that women tend to go for an easy and non-risk trade. They don’t go for big rather they try to maintain a stable trading situation. Considering the year of experience, people become more knowledgeable and experienced so they take decisions based on their own calculation, they tend to be less biased and shows optimistic behavior in their trading. In case of professional degree, people know the market and the trading behavior best and they can calculate and predict the future nature of a particular share and they totally take decision based on their calculation and tend to be least biased.

Chapter-7

Recommendation and Conclusion

# CHAPTER 7

# Recommendation and Conclusion

## 7.1 Recommendation

The probable recommendation could be-

* Investors should speculate the share price and consider related factors.
* Investors should not invest in high price shares.
* Before investment, investors should evaluate the company performance.
* Investors should carefully invest in the new issues.
* Investors should invest for the long-term investment.
* Investment may be done in the rising industries.
* No one should purchase or sell a share on the basis of tips and rumors.

## 7.2 Conclusion

The study is based on the data collected from IDLC Investments Limited, the company software where the related data sets are present. The investors are associated with IDLC. All the investors are listed under DSE (Dhaka Stock Exchange). Investors takes decisions based on different factors, the factors are behavioral psychological factors and economic factors. Investors based on age, gender, years of experience and professional degree take decisions differently. The decisions may differ based on these factors. Investors get biased of overconfidence, herd behavior, optimistic or pessimistic behavior, risk appetite, cognitive bias as behavioral biases. On the other hand, investors also show different decisions in case of economic factors like consistent belief in profitability, positive economic attitude or negative economic attitude.

However, the limitations of this research are that the sample is based only on individual investors and does not include institutional investors. It would be helpful to conduct further research that employed a larger sample and included all types of investors. Moreover, the analysis in this research done by using a percentage analysis of the questionnaires answers, however, this analysis can be more fruitful if it included advanced tools such as probability and non-probability methods, rigorous analysis, and empirical tools such as correlation and regression analysis between the factors.

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Chapter-8

Appendix

# Chapter – 8

# Appendix

**Appendix 1: Sample Questionnaire**

The Research is only for academic purpose. So please do not hesitate to answer

1. Age
2. Educational Qualification
3. Any Professional Degree
4. Years of Experience
5. Overconfidence and herd behavior: which is the most important factor that you base your decisions on when buying shares?

* Basing on market information and personal analysis.
* Following the market participants and fellow investors.
* Ask the experts and follow fundamental analysis.
* I focus on technical analysis.

1. Optimistic vs. pessimistic behavior: when the market index is losing value daily, I do the following:

* I sell my shares immediately.
* I wait until the index increases and sell them again.
* I buy more shares while the index is decreasing.
* I do not care if the index loses value because I buy shares for a long-term investment.

1. Risk Factor: as an investor, I would describe myself as follows:

* I love to take risk and believe it is a crucial factor for investors’ success
* As an investor, I know the right time to buy and sell shares
* I am a long-term investor and wait every year for evidence
* My strategy is to buy and sell the same shares when the market increases and I am a short-term investor

1. Do you show any quick response to the market rumors about good or bad news?

* I intend to sell the stocks which are at gain and hold the losing ones.
* I intend to sell the losing one’s immediately at bad news to avoid extra loss.
* I buy losing stock when bad news outbreak and price falls, because I believe the price will go up shortly.
* I sell the losing one’s when good news about any particular stock comes out and try to buy the profitable ones.

1. What you intend to do about a blue-chip share even if it continues losing price?

* I will hold it as a blue-chip will surely be profitable in the future.
* I will sell immediately and will invest the money on other profitable shares.

1. What is your decision pattern in case of a performing share?

* I sell performing stock early thinking it may lose value and regret if the price continues to grow up.
* I sell performing stock when I feel is the right time and if the price continues to grow up, I invest more on that.

1. What is your decision pattern in case of a non-performing share?

* I sell non-performing stock when I see it began to lose value and try to invest the money on different stocks.
* I keep holding the stocks to see the price rising and trade only the performing ones.

**Appendix 2: Correlation**

**Table A1. Age to question 1**

|  |  |
| --- | --- |
| Item | Ques 1 Correlation Value |
| Age | **-0.431** |

**Table B1. Age to question 2**

|  |  |
| --- | --- |
| Item | Ques 2 Correlation Value |
| Age | **-0.358** |

**Table C1. Age to question 3**

|  |  |
| --- | --- |
| Item | Ques 3 Correlation Value |
| Age | **-0.090** |

**Table D1. Age to question 4**

|  |  |
| --- | --- |
| Item | Ques 4 Correlation Value |
| Age | **-0.223** |

**Table E1. Age to question 5**

|  |  |
| --- | --- |
| Item | Ques 5 Correlation Value |
| Age | **-0.226** |

**Table F1. Age to question 6**

|  |  |
| --- | --- |
| Item | Ques 6 Correlation Value |
| Age | **-0.074** |

**Table G1. Age to question 7**

|  |  |
| --- | --- |
| Item | Ques 7 Correlation Value |
| Age | **-0.240** |

**Table A2. Gender to question 1**

|  |  |
| --- | --- |
| Item | Ques 1 Correlation Value |
| Gender | **0.273** |

**Table B2. Gender to question 2**

|  |  |
| --- | --- |
| Item | Ques 2 Correlation Value |
| Gender | **0.116** |

**Table C2. Gender to question 3**

|  |  |
| --- | --- |
| Item | Ques 3 Correlation Value |
| Gender | **0.184** |

**Table D2. Gender to question 4**

|  |  |
| --- | --- |
| Item | Ques 4 Correlation Value |
| Gender | **0.132** |

**Table E2. Gender to question 5**

|  |  |
| --- | --- |
| Item | Ques 5 Correlation Value |
| Gender | **0.190** |

**Table F2. Gender to question 6**

|  |  |
| --- | --- |
| Item | Ques 6 Correlation Value |
| Gender | **0.270** |

**Table G2. Gender to question 7**

|  |  |
| --- | --- |
| Item | Ques 7 Correlation Value |
| Gender | **0.270** |

**Table A3. Years of Experience to question 1**

|  |  |
| --- | --- |
| Item | Ques 1 Correlation Value |
| Years of Experience | **0.599** |

**Table B3. Years of Experience to question 2**

|  |  |
| --- | --- |
| Item | Ques 2 Correlation Value |
| Years of Experience | **0.523** |

**Table C3. Years of Experience to question 3**

|  |  |
| --- | --- |
| Item | Ques 3 Correlation Value |
| Years of Experience | **-0.296** |

**Table D3. Years of Experience to question 4**

|  |  |
| --- | --- |
| Item | Ques 4 Correlation Value |
| Years of Experience | **-0.450** |

**Table E3. Years of Experience to question 5**

|  |  |
| --- | --- |
| Item | Ques 5 Correlation Value |
| Years of Experience | **-0.435** |

**Table F3. Years of Experience to question 6**

|  |  |
| --- | --- |
| Item | Ques 6 Correlation Value |
| Years of Experience | **0.363** |

**Table G3. Years of Experience to question 7**

|  |  |
| --- | --- |
| Item | Ques 7 Correlation Value |
| Years of Experience | **0.470** |

**Table A4. Professional Degree to question 1**

|  |  |
| --- | --- |
| Item | Ques 1 Correlation Value |
| Professional Degree | **0.675** |

**Table B4. Professional Degree to question 2**

|  |  |
| --- | --- |
| Item | Ques 2 Correlation Value |
| Professional Degree | **0.603** |

**Table C4. Professional Degree to question 3**

|  |  |
| --- | --- |
| Item | Ques 3 Correlation Value |
| Professional Degree | **0.566** |

**Table D4. Professional Degree to question 4**

|  |  |
| --- | --- |
| Item | Ques 4 Correlation Value |
| Professional Degree | **-0.686** |

**Table E4. Professional Degree to question 5**

|  |  |
| --- | --- |
| Item | Ques 5 Correlation Value |
| Professional Degree | **0.587** |

**Table F4. Professional Degree to question 6**

|  |  |
| --- | --- |
| Item | Ques 6 Correlation Value |
| Professional Degree | **0.523** |

**Table G4. Professional Degree to question 7**

|  |  |
| --- | --- |
| Item | Ques 7 Correlation Value |
| Professional Degree | **0.725** |

**Appendix 3: ANOVA**

**Table H1. Age to all question one-way ANOVA test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | | |
|  | | Sum of Squares | df | Mean Square | F | Sig. |
| Q1 | Between Groups | 14.467 | 4 | 3.617 | 2.773 | .045 |
| Within Groups | 39.133 | 30 | 1.304 |  | . |
| Total | 53.600 | 34 |  |  |  |
| Q2 | Between Groups | 5.768 | 4 | 1.442 | 1.170 | .016 |
| Within Groups | 36.975 | 30 | 1.232 |  |  |
| Total | 42.743 | 34 |  |  |  |
| Q3 | Between Groups | 1.610 | 4 | .402 | .352 | .002 |
| Within Groups | 34.276 | 30 | 1.143 |  |  |
| Total | 35.886 | 34 |  |  |  |
| Q4 | Between Groups | 6.481 | 4 | 1.620 | .673 | .008 |
| Within Groups | 72.204 | 30 | 2.407 |  |  |
| Total | 78.686 | 34 |  |  |  |
| Q5 | Between Groups | .611 | 4 | .153 | .588 | .015 |
| Within Groups | 7.789 | 30 | .260 |  |  |
| Total | 8.400 | 34 |  |  |  |
| Q6 | Between Groups | .242 | 4 | .060 | .237 | .044 |
| Within Groups | 7.644 | 30 | .255 |  |  |
| Total | 7.886 | 34 |  |  |  |
| Q7 | Between Groups | .668 | 4 | .167 | .695 | .024 |
| Within Groups | 7.217 | 30 | .241 |  |  |
| Total | 7.886 | 34 |  |  |  |

**Table H2. Gender to all question one-way ANOVA test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | | |
|  | | Sum of Squares | df | Mean Square | F | Sig. |
| Q1 | Between Groups | 4.005 | 1 | 4.005 | 2.665 | .032 |
| Within Groups | 49.595 | 33 | 1.503 |  |  |
| Total | 53.600 | 34 |  |  |  |
| Q2 | Between Groups | .576 | 1 | .576 | .451 | .098 |
| Within Groups | 42.167 | 33 | 1.278 |  |  |
| Total | 42.743 | 34 |  |  |  |
| Q3 | Between Groups | 1.219 | 1 | 1.219 | 1.160 | .028 |
| Within Groups | 34.667 | 33 | 1.051 |  |  |
| Total | 35.886 | 34 |  |  |  |
| Q4 | Between Groups | 1.376 | 1 | 1.376 | .587 | .004 |
| Within Groups | 77.310 | 33 | 2.343 |  |  |
| Total | 78.686 | 34 |  |  |  |
| Q5 | Between Groups | .305 | 1 | .305 | 1.242 | .027 |
| Within Groups | 8.095 | 33 | .245 |  |  |
| Total | 8.400 | 34 |  |  |  |
| Q6 | Between Groups | .576 | 1 | .576 | 2.601 | .011 |
| Within Groups | 7.310 | 33 | .222 |  |  |
| Total | 7.886 | 34 |  |  |  |
| Q7 | Between Groups | .576 | 1 | .576 | 2.601 | .016 |
| Within Groups | 7.310 | 33 | .222 |  |  |
| Total | 7.886 | 34 |  |  |  |

**Table H3. Years of experience to all question one-way ANOVA test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | | |
|  | | Sum of Squares | df | Mean Square | F | Sig. |
| Q1 | Between Groups | 28.403 | 3 | 9.468 | 11.648 | .001 |
| Within Groups | 25.197 | 31 | .813 |  |  |
| Total | 53.600 | 34 |  |  |  |
| Q2 | Between Groups | 13.468 | 3 | 4.489 | 4.754 | .008 |
| Within Groups | 29.275 | 31 | .944 |  |  |
| Total | 42.743 | 34 |  |  |  |
| Q3 | Between Groups | 6.286 | 3 | 2.095 | 2.194 | .010 |
| Within Groups | 29.600 | 31 | .955 |  |  |
| Total | 35.886 | 34 |  |  |  |
| Q4 | Between Groups | 18.536 | 3 | 6.179 | 3.184 | .037 |
| Within Groups | 60.150 | 31 | 1.940 |  |  |
| Total | 78.686 | 34 |  |  |  |
| Q5 | Between Groups | 1.903 | 3 | .634 | 3.026 | .044 |
| Within Groups | 6.497 | 31 | .210 |  |  |
| Total | 8.400 | 34 |  |  |  |
| Q6 | Between Groups | 1.930 | 3 | .643 | 3.349 | .032 |
| Within Groups | 5.956 | 31 | .192 |  |  |
| Total | 7.886 | 34 |  |  |  |
| Q7 | Between Groups | 2.355 | 3 | .785 | 4.400 | .011 |
| Within Groups | 5.531 | 31 | .178 |  |  |
| Total | 7.886 | 34 |  |  |  |

**Table H4. Professional Degree to all question one-way ANOVA test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | | |
|  | | Sum of Squares | df | Mean Square | F | Sig. |
| Q1 | Between Groups | 29.790 | 5 | 5.958 | 7.257 | .000 |
| Within Groups | 23.810 | 29 | .821 |  |  |
| Total | 53.600 | 34 |  |  |  |
| Q2 | Between Groups | 18.552 | 5 | 3.710 | 4.448 | .004 |
| Within Groups | 24.190 | 29 | .834 |  |  |
| Total | 42.743 | 34 |  |  |  |
| Q3 | Between Groups | 15.219 | 5 | 3.044 | 4.271 | .005 |
| Within Groups | 20.667 | 29 | .713 |  |  |
| Total | 35.886 | 34 |  |  |  |
| Q4 | Between Groups | 41.995 | 5 | 8.399 | 6.639 | .000 |
| Within Groups | 36.690 | 29 | 1.265 |  |  |
| Total | 78.686 | 34 |  |  |  |
| Q5 | Between Groups | 3.448 | 5 | .690 | 4.038 | .007 |
| Within Groups | 4.952 | 29 | .171 |  |  |
| Total | 8.400 | 34 |  |  |  |
| Q6 | Between Groups | 3.695 | 5 | .739 | 5.115 | .002 |
| Within Groups | 4.190 | 29 | .144 |  |  |
| Total | 7.886 | 34 |  |  |  |
| Q7 | Between Groups | 5.505 | 5 | 1.101 | 13.410 | .000 |
| Within Groups | 2.381 | 29 | .082 |  |  |
| Total | 7.886 | 34 |  |  |  |

**Appendix 4: Cronbach’s Alpha**

**Table I1. Cronbach’s alpha value**

|  |  |  |
| --- | --- | --- |
| **Reliability Statistics** | | |
| **Cronbach's Alpha** | **Cronbach's Alpha Based on Standardized Items** | **N of Items** |
| .893 | .929 | 07 |

**Table I2. Cronbach's Alpha if Item Deleted**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item-Total Statistics** | | | | | |
| **Item** | **Scale Mean if Item Deleted** | **Scale Variance if Item Deleted** | **Corrected Item-Total Correlation** | **Squared Multiple Correlation** | **Cronbach's Alpha if Item Deleted** |
| Q1 | 12.2000 | 19.106 | .796 | .723 | .865 |
| Q2 | 12.3143 | 20.045 | .809 | .823 | .861 |
| Q3 | 12.4571 | 21.432 | .729 | .620 | .872 |
| Q4 | 10.9429 | 16.997 | .806 | .849 | .875 |
| Q5 | 13.0000 | 25.765 | .676 | .714 | .889 |
| Q6 | 12.7429 | 25.491 | .761 | .667 | .885 |
| Q7 | 12.7429 | 25.197 | .826 | .857 | .882 |