

## Abstract

This science fair experiment analyses the extent of investor (human) behaviour in the financial market based on decisions made by the investor(s) from publicly available financial information, and the implications that these behaviours have on the investor's investment portfolio as a whole.

In this experiment I tested the effects of financial news on investor behaviour in the stock market. In my experiment I intended to demonstrate that financial news does effect an investor behaviour and will turn out in a profit. I hypothesized that financial news over a three-month time period does effect the investor(s) behaviour and will result in a profitable gain for the investor(s) who is receiving the financial news. My results showed that news did effect an investor behaviour and that my treatment/experimental group did get profitable gains.

My hypothesis was proven correct and I was able to conclude that news does effect an investor behaviour and results in profitable gains. This project is useful for anyone interested in learning about the multiple stock markets globally, study and analyze historical data of companies, examine and explore how news effects the investor behaviour, and develop and interest in the financial markets, and build a skill set of investing smartly.

## Introduction

For my science fair project, I have decided to test the effects of publicly available financial news on investor(s) behaviour in the stock market.

I am interested in reading business news. This interest made me think about studying and analysing the stock market, how the markets work, the rise and fall of stock prices, and why and how investor(s) make decisions. After further research I questioned myself what effects an investor behaviour in the stock market? I discovered there are at least eight (8) different reasons that effect the investor behaviour. I found that news was one of the reasons that effect the investor(s) behaviour. So, I wanted to conduct an experiment on behavioral finance with a special focus on effects of financial news on an investor(s). I will observe the results of my experiment based on the following criteria:

- the importance of the news article related to the selected company ('relevance'), and
- whether the news story conveyed is positive or negative information about the company ('sentiment').

The experiment is to determine if an investor(s) makes a profit or a loss based on his/her getting influenced by the publicly available financial news obtained within a specific time period.

## Background

Understanding the importance of financial news that effects the price and value of a company's stock is critical for all shareholders, traders, investors, politicians, policymakers and businessmen who are concerned about financial market stability.

## Purpose

In this science fair experiment on the effects of financial news on investor(s) behaviour in the stock market, I intend to demonstrate that financial news does effect an investor(s) behaviour and will turn out in a profit.

## Hypothesis

I hypothesized that financial news over a three-month time period does effect the investor(s) behaviour and will result in a profitable gain for the investor(s) who is receiving the financial news and taking decisions based on the news.

## Scope

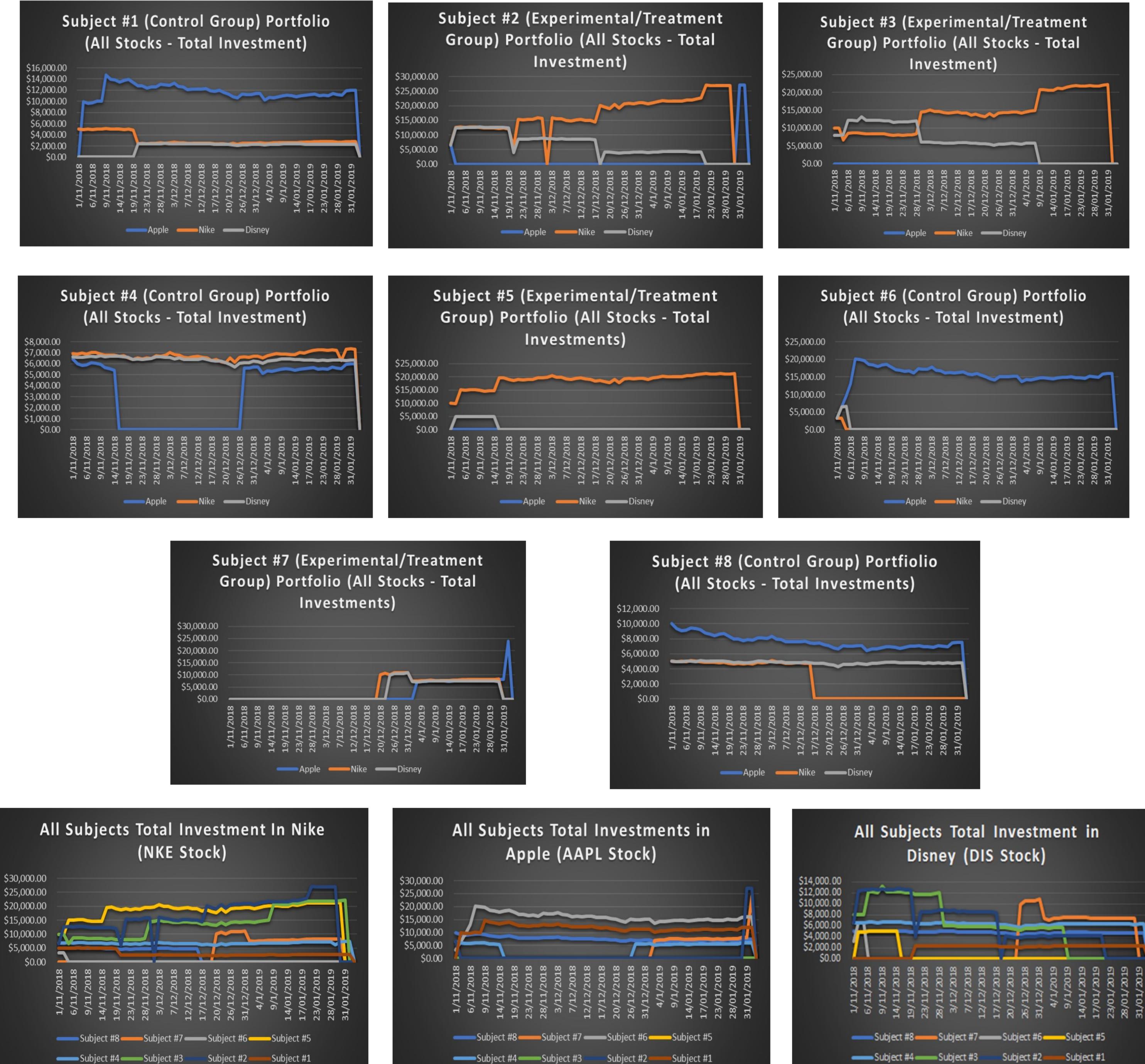
My scope for this experiment is to study the influence of publicly available financial information obtained from traditional media sources and observe its effects on investor(s) behaviour.

## Materials

The materials for this experiment that I used were the following:

- . Eight (8) subjects
  - . (both genders-male and female; different age groups, different income levels)
- . Three (3) different companies (stocks) from three different industry sectors
- . Starting Capital: USD \$20000.00 (Twenty Thousand US Dollars – play money)
- . Three-month stock price data for each company
- . Financial news from different sources for each company's stock
- . Calculator

## Data and Graphs



## Procedure

For this experiment the approach taken was the following steps:

- 1)Get permission from the eight (8) selected subjects (participants).
- 2)On a daily basis share the financial news of each company of that day to the subject(s) of the treatment/experimental group.
- 3)Record observations, date, company, current stock price, decision, Total Shares bought/sold, current Total Investment, decision reason and how much money is remaining. All these observations were recorded on an Excel spreadsheet as well as on a Word document.
- 4)Analyse data and see if subject(s) made a profit or loss at the conclusion of the given time duration of three (3) months.

## Variables

In this science fair experiment the independent and dependant variables that were considered in this experiment were the following:

- . Independent Variable: Financial News
- . Dependant Variable: Investor decision(s)

## Results / Observations

When I was done with my experiment, my results were that the treatment/experimental group had profitable gains and the control group had negative gains.

On average the control group made a \$2520.98 loss and the treatment/experimental group made a \$3755.40 profit. After conducting my T-Test I found out that my results are 99.5% accurate. Which means that there is a difference between the control group and the treatment/experimental group and that my results aren't due to chance.

Control Group	Profit	Loss
Subject #1	-	\$2901.92 (14.5% decrease)
Subject #4	-	\$325.28 (1.6% decrease)
Subject #6	-	\$3824.02 (19.1% decrease)
Subject #8	-	\$3032.68 (15.2% decrease)

Treatment/Experimental Group	Profit	Loss
Subject #2	\$7224.27 (36.1% increase)	-
Subject #3	\$2089.21 (10.4 % increase)	-
Subject #5	\$1593.44 (8% increase)	-
Subject #7	\$4114.69 (20.6% increase)	-

## Conclusion

According to my experiment and T-Test, I can now conclude that financial news does effect an investor behaviour and it does turn out in a profit.

My hypothesis which was "I hypothesize that financial news over a three-month time period does effect the investor(s) behaviour and will result in a profitable gain for the investor(s) who are receiving the financial news" was proven correct after conducting the experiment. In the experiment, I observed how the publicly available information affected the individual investor(s). This experiment was important, because financial news is a major source of information for investors in the stock market. My findings show that news does have a significant impact on the market and the investor(s).

The findings found from this science fair project can be applied in real life for

## Applications

anyone exploring behavioural finance. Also this project is useful for anyone interested in investments and in learning about the multiple stock markets globally, study historical data of companies, analyze patterns of company's performance, study and see how news effects investor behaviour, and build a skill set of investing smartly. Additionally, I learned that it is extremely important for the investor(s) to educate themselves, learn how to begin investing, analyze their faults and not to repeat the same mistake again.