THE EFFECT OF ANNOUNCEMENT OF COVID-19 ON MANUFACTURING COMPANIES TRADING AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

Student Declaration

This research proposal is my own original work and has not been submitted in any University or College for an Award of a degree.

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Supervisor Declaration

This research project has been submitted for examination with my approval as the University Supervisors.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

This study is built on two variables; Covid-19 announcement and Stock return for Manufacturing Companies Trading at the Nairobi Stock Exchange (NSE). The two variables share an interdependent relationship where the announcement of covid-19 either directly or indirectly affects the stock return of companies under the study.

The study is based on three fundamental theories namely; The Rational Expectations Theory (John F. Muth), Prospect Theory (Daniel Kahneman and Amos Tversky) and Markowitz Efficient Market Theory The rational expectations theory suggests that participants/stakeholders in an economy will act in a way that meets to their expectations of the current and future market trends. This theory is used to explain what the future holds for manufacturing companies trading at the NSE following the effect of the Covid-19 announcement. The prospect theory defines how security exchange works. It states that people tend to avert losses in the security exchange business by all means. The theory is used to explain the current situation being experienced at the NSE and how Covid-19 announcement has impacted people's and organization's decisions to invest at the NSE. Lastly, the efficient market theory highlights how market price for shares can be used to obtain information about securities. In this case, the theory is used to assess the impact of Covid-19 announcement on manufacturing companies trading at the NSE.

Despite the existence of notable effect of Covid-19 announcement on manufacturing companies trading at the NSE, a few empirical studies exist on this topic. Covid-19 announcement has several effects on stock return at the security exchange sector. Since the pandemic was announced, the sector has faced a mix of both positive and negative impacts (Mutua, 2019). One of the most notable impacts that the announcement has had on manufacturing companies trading at the NSE is the effect on security prices.

While some of the companies have had positive stock return over the period of the pandemic, some of the companies trading at the NSE have faced loses during the Covid-19 crisis. Since the pandemic is a new phenomenon, a few researchers have studied how it has impacted the performance of manufacturing companies especially at the NSE (NSE, 2016). Therefore, this study is justified as it seeks to bridge the gap in research on the effect of Covid-19 announcement on stock return of manufacturing companies trading at the NSE.

1.1.1. Covid-19 Announcement.

The independent variable in this study is Covid-19 announcement. In Kenya, the first case of Covid-19 was confirmed by the ministry of health in March 2020(CDC Kenya). Since then, the pandemic has not only affected the health sector but also the economic and financial sector.

Some of the research issues that the study seeks to solve include; lack of research on the announcement of Covid-19 on stock return of manufacturing companies trading at the NSE. Due to limited research on the announcement of Covid-19 on stock return of manufacturing companies trading at the NSE (Marekia, 2015), it has necessitated speculations and stereotypes that are merely based on neither facts nor evidence. This therefore demands the need to conduct this study to ascertain the actual effect of Covid-19 announcement on stock return of manufacturing companies trading at the NSE (NSE, 2016). Therefore, the study is warranted.

Most researchers measure the effect of the Covid-19 announcement as a variable by assessing the impacts that the variable has had on stock prices and returns. While some researchers argue that the pandemic has positively influenced performance of manufacturing companies trading at the NSE, others suggest that it has negative effects (Mutua, 2019). However, there are some companies that have benefited from Covid-19 announcement and have since seen an increase in their profit margins and stock prices (Makori, 2017). Besides that, the variable has been widely measured by researchers based on its impact on productivity in organizations.

1.1.2. Stock Return.

Stock return refers to the capital gains/losses and dividends due to an investor over a specified period of time. According to Marekia, (2015), performance is the central measure of an outcome, achievement of goals/objectives for both individuals and organizations. It defines performance as the ability to make/produce the best out of activities, operations and resources that a person/organization engages in on a day to day basis. On the other hand, performance can also be defined as achieving desired or preferred results, goals and objectives. In business, it is the ability of an organization to maximize profitability through the products/services it provides. In my view, performance is the measure of the success or failure of an activity, process or strategy.

One of the research issues associated with this variable is that while plenty of research exist on the impact of Covid-19 on performance, little or no research exists on the impact of Covid-19 on performance of companies trading at the NSE. Moreover, little research exists on the influence that the pandemic has had on the performance of organizations trading in the NSE. The relationship between Covid-19 as the independent variable and performance as the dependent variable has not also been explored much in empirical research.

As a variable, performance has often been operationalized by researchers by measuring the results and outcomes of business activities and operations in organizations. Most researchers evaluate the performance of organizations by assessing whether the organizations have met their set goals and objectives. Existing research also measures the variable by estimating the targets met by organizations and the ability of organizations to achieve set targets. Other researchers also measure the variable by looking at the profit that organizations have made over a specific period of time. Besides the above, the variable has also been measured by some researchers by studying the levels of customer satisfaction, quality of products and services and the ability of organizations to be able to meet customer expectations, needs, tastes and preferences.

1.1.3. Relationship between Covid-19 announcement and Stock return

This section explores the relationship between Covid-19 announcement as the independent variable and stock return as the dependent variable. Criticism may be raised on how the concept over-emphasizes on the relationship between Covid-19 and stock return but not the impact of Covid-19 announcement on stock return of manufacturing companies at the NSE. However, the concept is suitable for studying the relationship between the independent and dependent variable in the study. Recent research emphasizes the influence Covid-19 pandemic has had on organizational performance whereas others suggest that there is no direct correlation between Covid-19 and organizational performance.

Empirical studies have also examined the direct influence of the Covid-19 pandemic on organizations' performance. However, little research exists on the influence of Covid-19 on the performance of companies at the NSE. In this case, there are a few empirical studies on the relationship between the independent and dependent variables. Although the relationship between, the Covid-19 pandemic and performance has been confirmed empirically, there is need to conduct empirical studies on the impact of the pandemic on performance of companies especially trading at the NSE.

1.1.4. Companies Trading at the Nairobi Securities Exchange.

The Nairobi Stock Exchange is one of the stock exchange markets that has a fair share of investors and shareholders. The exchange serves as an entry point for foreign investors looking for exposure to East Africa's fast-growing economies and is among the continents fifth biggest by market capitalization alongside South Africa, Egypt, Nigeria and Morocco's stock exchange markets. Some of the key players at the NSE include; Safaricom, Equity Group, Bamburi Cement, Barclays Group and BAT Kenya (NSE, 2020). These are the leading and top companies trading at the NSE.

The Nairobi Security Exchange (NSE) currently boasts of 66 listed companies, two of which are cross-listed from Rwanda and Uganda. Its market capitalization was 2.53 trillion shillings ($23.14 billion) as of 2020 (NSE, 2020). The last company to list shares on the exchange was Rwanda's Bank of Kigali in 2018. The exchange's main NSE-20 Share Index ended 2020 down 30% at 1,868.39 points after hitting an all-time low in August of 1723.96 points, hurt by effects of the Covid-19 pandemic, the conflict of trade between the United States and China and the influence in the US 2020 elections (NSE, 2020). In 2019, Nairobi became the second security exchange market in sub-Saharan Africa after Johannesburg to start a derivatives market. The market transacted 45 million shillings' worth of derivative contracts in 2020, a figure expected to more than double this current year.

1.2 Research Problem

The Covid-19 announcement has affected different participants and stakeholders of the economy. Almost all industries have felt its effects with the hotel and education sectors being the most hit. In Kenya, before the first case was confirmed, the country's economy was doing quite well. Similarly, the performance of companies trading at the NSE were relatively good. However, since the pandemic hit the country, companies trading at the NSE have been affected in difference ways. Stock return in some of the companies such as Equity Bank, NCBA Bank and the Standard Chartered Bank has dropped significantly (Omondi, 2020). Other companies such as Kenya Airways have been forced to ask for bailout amounting to approximately 7 billion. Andae (2020) suggests that several companies listed at the NSE are facing a financial crisis.

Most companies at the NSE were hit hard by Covid-19 announcement with some being forced to drop out of the market. Other companies capitalized on the situation and made significant profits from new investors coming into the security exchange business (Munyao, 2018). Some of the companies trading at the NSE that witnessed positive impacts as a result of the pandemic are mostly banks including; Equity Bank, Co-op Bank, ABSA Bank and companies in the financial services sector such as Safaricom (NSE, 2016). These organizations have made several strides in ensuring that it offers the financial services and investment to people and organizations across the country. Companies at the NSE have come in handy in ensuring "Wanjiku" gets financial services and investments which help them sustain their livelihoods and grow themselves through businesses and investments. However, some of the companies trading at the NSE especially those not in the financial services sector including; Bamburi Cement and BAT Kenya have seen a drop in the organizations' stock price. In this case therefore, Covid-19 announcement has had both positive and negative impacts on performance of companies trading at the Nairobi Stock Exchange (NSE).

Existing research indicates that the Covid-19 announcement has had a negative impact on stock performance, they suggest that the impact of the pandemic on performance of organizations differs from one country to another. Therefore, studies on the impact of Covid-19 announcement on stock returns in security exchange in other countries cannot be used to determine the impact of the pandemic on performance of manufacturing companies trading at the NSE in Kenya.

1.3 Research Objective.

To establish the effect of Covid-19 announcement on stock prices of manufacturing companies trading at the Nairobi Stock Exchange (NSE).

1.4 Value of the Study

The study is significant in analyzing how impactful Covid-19 announcement has been on stock returns of manufacturing companies trading at the Nairobi Stock Exchange (NSE). The Covid-19 announcement has had both positive and negative impacts on organizations. It is therefore important to understand and distinguish these impacts. It is also important to understand the relationship between the pandemic and stock return. While some researchers argue that the Covid-19 announcement has impacted the performance of firms negatively, other researchers cite the benefits of the variable and its link in improving stock returns.

Stock return is one of the most effective indicator of measuring both the independent and dependent variables. In this case, understanding how stock return is affected by both the dependent and independent variable in this study is important. Understanding the performance of manufacturing companies trading at the NSE is important in exploring how the Covid-19 announcement has affected performance of these companies. In this case, the study will involve the study of performance before, during and after the covid-19 announcement in order to ascertain the impact that the pandemic has on performance of manufacturing companies trading at the NSE. Other than the performance of companies trading at the NSE, the Covid-19 pandemic has also affected the performance of other players in the sector including investors (Mutua, 2019). The Covid-19 announcement has affected the performance of shares hence affecting investors' decision to buy and sell shares at the NSE. Therefore, the study will play a vital role in helping investors make informed decision concerning purchasing or sell of shares at the NSE and prevent impacts such panic buying or selling which can crash the market in the future.

It also important to study the relationship between the Covid-19 pandemic and performance of manufacturing companies trading at the NSE. Furthermore, like the two other theories, the approach also incorporates the Covid-19 announcement as its independent variable and stock return as the dependent variable. Criticism may be raised on how the concept over-emphasizes on the relationship between Covid-19 and productivity in organizations but not the impact of the pandemic on performance of companies trading at the NSE. However, the concept is suitable for studying the relationship between the independent and dependent variable of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers theoretical review of the theories on which the study is based, the empirical review, summary of literature review and a conceptual framework with a view to answer the research question.

2.2 Theoretical Review

The Covid-19 announcement has had several effects on stock prices in most manufacturing companies trading at the Nairobi Stock Exchange (NSE). Some of the theories that can be used to discern the relationship between variables of the study include; The Rational Expectations Theory, Prospect Theory and Efficient Market Theory. These three theories have been widely used by theorists exploring the impacts of technology on different sectors. They are used to analyze the relationship between Covid-19 announcement and stock returns. This section compares and contrasts the similarities and differences between these three theories as used to demonstrate how the theoretical models can be applied in real life situations. Furthermore, it explores the relevance of the theories to the study and their relationship with the variables.

2.2.1 The Rational Expectations Theory

John F. Muth in 1961 first introduced the rational expectation theory which was later popularized by economists Robert Lucas and T. Sargent. The theory suggests that people make economic or financial decisions based on their expectations of the current and future market trends. In this case, a person is likely to invest if the investment seems to meet their current and future expectations or the expectation of the market. According to the theory, it is more fulfilling for a person to meet their expectations when they are investing. It is also fulfilling to make an investment whose future one is guaranteed. However, critics of the theory fault the model for being selfish and centered on individual or organizational interests and not the interests or future of the market (Muhoro, 2016). For example, if an investor thinks that an investment is more likely to attract more profit in the future, they are more likely to invest in such a project. In this case, investments that are their initial stages though they may be viable investments are more likely to attract few investors. In securities exchange, most investors are more likely to invest in stock when stock prices decrease and sell them when the prices increase.

This theory is relevant to this study as it explains what the future holds for the manufacturing companies trading at the NSE following the effects of the Covid-19 announcement. The theory can be used for forecasting fluctuations or changes in stock prices in the future and understand why stock prices fluctuate. In this case, it may help an investor/manufacturing companies trading at the NSE to make sound decisions on when to and not to buy or sell stocks. The theory explores how stock prices are unpredictable and when and why the price fluctuates (Sandev, Metzler & Chechkin, 2018). Using the theory, it will be possible to predict the future of stock prices during and after the Covid-19 announcement.

In relation to stock returns in the security exchange, the theory suggests that stock prices are dependent on factors including market’s prices and investors’ financial capabilities (Fama, 2019). In this case, the current stock prices cannot be used to determine the stock prices in the future. According to Sandev, Metzler and Chechkin (2018), the fact that stock prices at a given moment are low does not mean that they will remain the same in the future; the prices can either drop further or increase. In short, there is no accuracy of how and when stock prices will be stable hence investors should consider market trends and factors that affect stock prices at the NSE before making a decision to buy and sell stock at the market. This theory is relevant for this study because it shows changes in security prices before and after the Covid-19 announcement at the NSE.

2.2.2. Prospect Theory

The prospect theory was first advanced by Daniel Kahneman and Amos Tversky in 1979. The theory defines how security exchange works. It states that people tend to avert losses in the security exchange business by all means. The theoretical model is based on the assumption that the security prices cannot be manipulated. Being at the center of the theory, evidence still exist of manipulated results by firms which affects the share prices forming the basis on which the challengers of the theory build on as per (Kirkpatrick & Julie, 2019).

The theory will be used to explain the current situation being experienced at the NSE and how Covid-19 announcement has impacted people's/organization's decision to invest at the NSE. The model is relevant to the study as it provides its linkage between the concepts of expectations and stock returns at the NSE.

2.2.3. Efficient Market Theory/Hypothesis

Markowitz in 1952 introduced the efficient market hypothesis. The theory suggests that in an ideal market situation, stock prices are determined by prevailing market conditions. Furthermore, it indicates that the existing stock prices in a market are the actual representation of the nature and the conditions of the market. According to the theorists responsible for the theory, stock prices are an actual reflection of the market. In this case, prices should be used to estimate the value of a market in an ideal situation (Rossi, & Gunardi, 2018). The theory is based on the assumption that all market conditions are constant when prices are constant. However, a fluctuation of prices is an indication of market changes caused by external factors such as inflation.

This theory can be used to support the view that the Covid-19 announcement impacted stock returns of manufacturing companies trading at the NSE and thus can be to make an assessment before and after the announcement.

2.4 Empirical Studies

The study analyzes the existing empirical studies that have tried to explore the effect of Covid-19 announcement on stock returns of manufacturing companies listed at the NSE. According to Baker et al. (2020) the Covid-19 announcement has had a negative effect on stock performance in the security exchange market. However, the study is built on the premise of the impact of the pandemic on the stock performance of companies in the USA security exchange market. The study highlights how stock performance of companies in the country's security exchange dropped as a result of the impact of the Covid-19 announcement. However, the study can only be used to support the premise that the pandemic impacts stock performance but it cannot determine the impact of Covid-19 announcement on the stock return of manufacturing companies trading at the NSE.

Several empirical studies have also attempted to explore the impact of Covid-19 pandemic on performance of organizations. However, the existing research does not explore how the pandemic has affected the stock return of manufacturing companies trading at the NSE. There are also a few empirical studies that examine the extent at which the pandemic has impacted stock prices at the NSE (Omondi, 2020)

In China, which was the source of the disease, such an effect would have been expected since there were no measures taken to cushion the economy against the effects of the pandemic. In addition, studies on the impact of Covid-19 announcement on stock return of organizations in China cannot be used to evaluate the effects of the pandemic on performance of companies trading at the NSE in Kenya. Some of the studies including Fernandes (2020) and Zhang, Hu and Ji (2020) only explore the impact that the pandemic has had on performance in organizations in the global market and not locally as in the case of companies trading at the NSE.

In the Nairobi Security Exchange, existing empirical studies explore the impact of Covid-19 of performance of companies not necessarily trading at the NSE. One of the most relevant studies is on the impact of the post-election violence on performances of companies listed at the NSE during the 2007 to 2008 financial year (Oriwo, 2012). Unfortunately, findings from the study cannot be equated to the current situation or be used to determine the effect of the Covid-19 announcement on stock returns of manufacturing companies trading at the NSE today (Ozili, 2020). Similarly, Koech and Rotich (2013) explore the impact of the 2008 financial crisis on the performance of companies trading at the NSE stock market during this period. However, the same findings can only be used to try an establish how a financial crisis can impact performance at the security exchange but since the crisis was not caused by a pandemic, it cannot be relied upon to determine the impact of the Covid-19 announcement on stock returns of manufacturing companies trading at the NSE in Kenya.

2.5 Conceptual Framework

The conceptual framework as shown in the diagram below is used to show the relationship between the Independent variable and the dependent variable. In the study, the independent variable is Covid–19 announcement while the dependent is the stock return of manufacturing companies trading at the Nairobi Securities Exchange. The relationship between the variables will be estimated as a function.

2.6 Summary of Literature Review

According to Zhang etal (2020), several studies have confirmed the existence of a direct correlation between Covid-19 announcement and stock return. Recent research acknowledges the impact that Covid-19 has on organizational performance whereas other studies suggest that there is no direct correlation between the pandemic and organizational performance. Some critics of the model have scrutinized how most companies at the NSE buy stock when stock prices are low and sell them when the prices shoot upwards. According to recent studies, this phenomenon favors huge companies in security exchange while the small or new entrants into the market are disadvantaged as they do not have enough financial resources at their disposal (Zhang, Hu & Ji, 2020). Moreover, steps undertaken by companies trading at the NSE also differ hence prompting a study of how the Covid-19 announcement has impacted stock performances of manufacturing companies and how these companies have reacted. Although the effects of the pandemic on stock returns in security exchange has been global, there is need to explore the impact at the local security exchange market in Kenya (Oriwo, 2012). In this case, it is justified to argue that Covid-19 announcement has forced companies trading at the NSE to develop measures to cushion them against the impacts of the pandemic on the economy so as to maintain a steady, high performance in the market

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section describes the methods of research applied to determine the impact of Covid-19 announcement on stock returns of manufacturing companies trading at the NSE in an objective manner. The research design, population of the study, sampling design, data collection technique as well as the sampling criteria used are discussed in this chapter.

3.2 Research Design

A research design entails a general guide on how the study will address the research problem. The research has employed a descriptive research method where no information collected is manipulated. A descriptive study aims at finding out the what, where and how of a phenomenon (Appleton, 2017). The appropriateness of this design is that it allows the researcher to utilize both qualitative and quantitative data in order to determine the effect of Covid-19 announcement on stock return of manufacturing companies trading at the NSE. Descriptive cross sectional design has been used by the researcher to obtain data, make summarizations, presentations and interpretations in order to obtain more clarification on issues (Arnab 2017).

3.3 Population of the Study

According to Cooper and Schindler (2010), a population is a collection of units of study. The study's population comprises of the nine manufacturing companies currently trading at the NSE.

3.4 Data Collection

Data Collection refers to the process of gathering data for the study. The study has mainly focused on secondary data which has been obtained from existing studies and literature on the impact of Covid-19 announcement on stock return for manufacturing companies trading at the NSE. The data collection process began with a review of literature already published on the topic.

3.5 Data Analysis

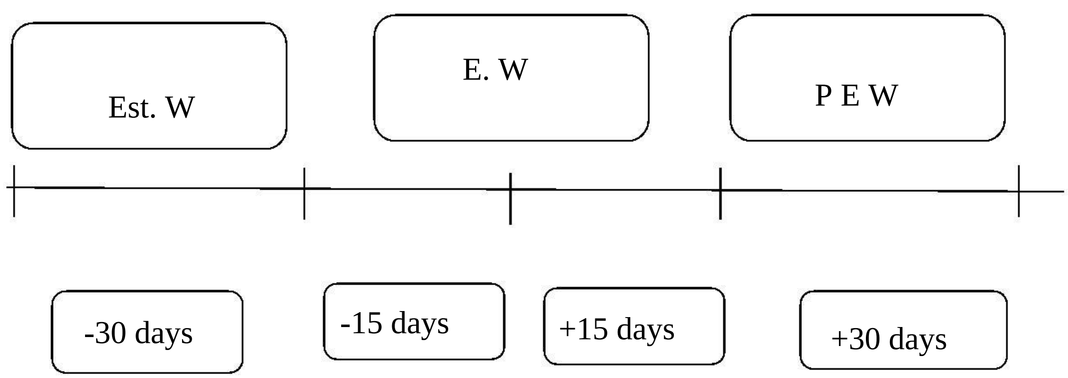
According to Miksza and Elpus (2018), data analysis begins right from the process of collecting data to when data is interpreted, decoded and processed. The initial stages of data analysis for this study involved data entry, coding, and analysis using the statistical package for social sciences (SPSS). The study also followed the Market Model (MM) as outlined below:

Step 1: Identifying the event of interest.

The event of interest is the Announcement of Covid -19 in March 2021.

Step 2: Defining the event window.

The event window is 15days before and 15days after the announcement of Covid-19. The estimation window is 30days before the event while the post event window is 30days after the event.



Where;

Est. W: Estimation Window, E.W: Event Window and P E W: Post Event Window.

Step 3: Selecting manufacturing companies trading at the NSE.

This study has focused on all the nine manufacturing companies currently trading at the NSE.

Step 4: Prediction of the stock return during the window period.

Prediction was done by noting the relationship between Covid-19 announcement and stock return pre-window period and post-window period. Total stock return for the two periods is obtained as follows;

$$Total\ Stock\ Return = \frac{(P_1 - P_0) + D}{P_0}$$

$P_0 = Initial\ Stock\ Price$
$P_1 = Ending\ Stock\ Price(Period\ 1)$
$D = Dividends$

Step 5: Comparison of the stock return during the window period.

A comparison of the stock return for the manufacturing companies trading at the NSE before the announcement of Covid-19 and after the announcement was done in order to illustrate the overall effect as per the study. The focus was the event window.

Step 6:

The last step was testing whether the stock returns of the different companies are statistically significant from Zero, using the formula;

$$t = \frac{\bar{X} - \mu}{S.d/\sqrt{n}}$$

Where:

$\bar{X}$ = mean

μ = population mean (which is assumed to be zero)

S.d = standard deviation.

n = population size.

3.6.1 Diagnostic Tests

Both the F-test and the T-test has been used to measure the significance of the study. Any figure at or above 95% confidence level is regarded as significant (Miksza and Elpus, 2018). F-statistic has been used to evaluate statistical significance of regression equation while the T-statistic has been utilized to test statistical significance of the study coefficients. Reliability test has determined the extent to which the research instrument performs the intended purpose and provides the expected outcomes. The test has been obtained using Cronbach alpha. Normality has been used to evaluate the idea that the measures of central tendency are often approximated by the mean of variables.

3.6.3 Significance Tests

The researcher used t-test to determine the significance of each individual variable used in the study. The p-value under sig. column has been used to determine whether there is a notable correlation between variables. The p-value which is less than < 0.05 at 95% confidence level is construed to indicate that there is a significant relationship between variables (Arnab 2017). As such, a p-value above 0.05 shows that there is little or no direct relationship between the dependent and independent variables in the study.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter explores the findings on the effect of the announcement of Covid-19 on manufacturing companies trading at the Nairobi security exchange. It also shows a clear presentation of the data collected and how the data was analyzed. The data analyzed was obtained from the Nairobi security exchange as well as the manufacturing companies involved in the study. Data collected and analyzed were obtained from the following manufacturing companies listed in the NSE namely; East Africa Breweries Plc, Unga Group Ltd, Kenya Orchards Ltd, Eveready East Africa Ltd, Mumias Sugar, British American Tobacco Kenya Ltd, Flame Tree Group Holding Ltd and Carbacid Investments Ltd. Data was analysed by use of both qualitative and quantitative methods. Quantitative data collected was analyzed using descriptive statistics aided by Statistical Package for Social Sciences (SPSS) version 22.

4.2 Inferential Statistics

Inferential statistics was used to analyze the data collected. Some of the inferential statistics methods used to analyze the data in the study include the T-test and F-test. Also, measures of central tendency such as mean, frequencies and standard deviations of various the variables. The T-test and F-test were used to compare the data from the manufacturing companies trading at the NSE. Data collected included data on Covid-19 effect, exchange rates and days to 2020 dividends payouts by manufacturing companies at the NSE. Data for both share prices and share trade volumes for the period of study was also analyzed. Using the formula below, the total stock return pre-window and post-window period was obtained and analyzed as follows:

$$Total\ Stock\ Return = \frac{(P_1 - P_0) + D}{P_0}$$

$$P_0 = Initial\ Stock\ Price$$
$$P_1 = Ending\ Stock\ Price (Period\ 1)$$
$$D = Dividends$$

An example of a company like EABL, prior to the announcement of Covid-19 the total stock return of EABL as of March 10, 2020 was Ksh.164.75. However, a fifteen days after the announcement of the Total Stock Return was at Ksh.162.25. Table 4.1 below compares the total stock returns of manufacturing companies at the NSE during the period under study after first Covid-19 announcement in Kenya.

Company	**Initial-Stock Price (Ksh.)**	**Ending-Stock Price (Ksh.)**	**Dividends (Ksh. per share)**	**Total-Stock Return**
Bamburi Cement	160.25	157.50	2.0	0.0296
EABL	164.75	162.25	3.0	0.0334
Unga Group	157.50	154.25	2.0	0.0333
Eveready	159.60	155.40	2.0	0.0388
Kenya Orchards Ltd	158.10	155.90	2.0	0.0266
Mumias Sugar	157.50	153.25	1.5	0.0365
British American Tobacco Kenya Ltd	159.40	157.60	2.0	0.0238
Flame Tree Group Holding Ltd	158.30	155.70	1.5	0.0259
Carbacid Investments Ltd.	157.50	154.25	2.0	0.0333

Table 4.1. Stock returns of manufacturing companies at NSE. Source: (NSE 2020).

4.2. Data Presentation

This section captures the analysis of data collected and classification of the data for presentation. The findings presented in this section are analyzed with an aim of establishing the relationship between the announcement of Covid-19 and the effects it had on manufacturing companies trading at the NSE. This is important in testing and establishing the relationship between the dependent and independent variables in the study. A correlation between the variables under study were tested using the Pearson correlation coefficient. Trade volume and the days to 2020 dividends payouts for manufacturing companies trading at the NSE were found to be negatively correlated with all variables while exchange rates had only one positive correlation. The test shows that Covid-19 announcement affected share prices negatively which by extension affected the stock return ocf companies. The highest absolute correlation was between exchange rates and ln of Covid-19 effect while the smallest was ln of Covid-19 effect and trade volume. Data was presented using both the T-test and F-test as shown below:

$$t = \frac{\bar{X} - \mu}{S.d/\sqrt{n}}$$

Where:

$\bar{X}$ = mean

μ = population mean (which is assumed to be zero)

S.d = standard deviation.

n = population size.

And;

$$F = \frac{\text{between-group-variability}}{\text{Within-group-variability}}$$

Manufacturing Companies Trading at the NSE.	Paired Differences					
			95% confidence interval of the difference			
	Mean	Standard deviation	t	f	Population Size	Population Mean
	159.20	9.50303	36.313	9	.0333	.000

Table 4.2 T-test and F-test

Using T-test and F-test, the study explored the effect of the independent variable on the dependent variable. Analysis of the data collected has established that the variables do affect share performance. 36.31% of the changes in stock performance can be attributed to occurrence of pandemics, declaration of dividends, exchange rates and trade volumes. This shows that there are many other factors which affect share price performance represented by 64.69% as per the study.

The study has also established a significant negative effect on stock performance by occurrence of pandemics. Since the day that the Covid-19 pandemic was announced, there was a decline in stock performance of the manufacturing companies at the NSE by 0.20 units. Exchange rates have a positive relationship with stock performance while delay in payment of dividends have a negative effect on share performance. The effect of exchange rates is insignificant as shown by a p-value of 0.333 while the effect of dividends delay is significant with a p-value of 0.000 of the predictor variables. Delay in dividend payments has the highest absolute impact at 0.998 units for every corresponding unit change.

4.3. Discussion of Research Findings

The study results was in respect to the Covid-19 announcement and stock return for manufacturing companies trading at the NSE. Findings from the study reveal that the pandemic made the share prices of manufacturing companies at the NSE to drop even before the actual effect on the economy was felt after the announcement of the Covid-19 pandemic. As a result, the study agrees with the findings of Clarke, Jandik and Mendelker (2001) but disagrees with the observations of Malkiel (2000) that efficient market theory has assumptions, which may not hold water.

Based on these findings, the study shows a dependence has been established between the effects of announcement of pandemics on the performance of companies trading at the securities exchange. The study agrees with the findings of Al-Awadhi et al. (2020) that there is a negative relationship between pandemics and performance of securities. This is because operations are expected to be disrupted affecting future expected payoffs from a company. Based on these findings, relevant authorities should take measures to mitigate the effect of the Covid-19 pandemic on manufacturing companies trading at the Nairobi Stock exchange.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This section of the research focuses on the major findings of the study and their implication to the field of study. It specifically focuses on a summary of the research findings, conclusions made by the researcher based on the findings and the recommendations made by the researcher. In addition, the chapter also discusses the limitations of the study, which were faced, and recommendations for further studies.

5.2. Summary of Findings

The research objective was to determine the effect of the announcement of Covid-19 on manufacturing companies trading at the Nairobi Securities Exchange. The effect was measured by comparing the performance of the manufacturing companies at the NSE pre and post the window period, the number of days to book closure was used to measure the losses or gains in relation to the Covid-19 announcement. From the T- test results, the study found out that all the variables where fairly distributed among the manufacturing companies before the announcement of Covid-19 in Kenya in March 2020. The autocorrelation of results indicated that all the variables under consideration were negatively affected but to varied extents by the announcement of the first case of Covid-19 in Kenya.

In relation to the variables under consideration, the study results established that the impact of Covid-19 affected the stock performance of the manufacturing companies in a negative manner, however manufacturing companies who were able to quickly employ mitigating measures were not badly off.

Further, the study found out that the trade volume affected the performance of the manufacturing companies at the NSE in a not only negative way, but which was also statistically significant. In the consideration of the days to the closure of business books, a negative and statistically significant influence was found to exist in the NSE market since the Covid-19 announcement.

5.3. Conclusion

Based on the study findings discussed above, I can make several conclusions. The announcement of the Covid-19 pandemic, leads to the conclusion that the pandemic was negatively affecting the physical operations of businesses to varied extents and this was in return lowering the level of performance of the stock market. On the other hand, the exchange rates were found to be influencing the performance of the stock market in a positive way which leads to the conclusion that, higher exchange rates against the US dollar favored the performance of the stock markets as it offered an alternative investment avenue for the foreigners within the country.

The results on the effects of trade volume of the stock of manufacturing companies at the NSE have indicated a negative and significant effect, the study can therefore make a conclusion that trade volume was a reflection of the appetite to invest and which the law of demand took effect.

In terms of the announcement of the Covid-19 pandemic and its effects on manufacturing companies trading at the Nairobi security exchange, a negative relationship leads to the conclusion that the firms will have better performance towards the announcements of the dividends as more people will be willing to purchase the stocks and get to be listed in the books as bona-fide shareholders to receive the dividends. As a result, the first announcement of Covid-19 pandemic has resulted in lower productivity of the manufacturing companies at the Nairobi security exchange and has discouraged the purchase of shares based on the principle of time value for money.

5.4. Recommendations

According to the research findings, the researcher recommends to all the stake holders including the players in the Nairobi security exchange, the manufacturing companies that participate in the market and the state departments that they should take all the necessary measures that should contain effects of the announcement of the Covid-19 pandemic. Measures such as adoption of relevant technology should be taken quickly to arrest the spread of Covid-19 impact, in which if it persists may adversely affect the general performance of the entire security market as well as the economy at large.

The positive relationship existing between the announcements of the Covid-19 pandemic and its effects on manufacturing companies at the Nairobi security exchange, the researcher recommends that the companies involved in the study and trading at the NSE should be highly cautious of the exchange rates so as to take advantage of the impact they bring about based on the fact that the exchange rates are a resulting factor from news such as the announcement of the Covid-19 pandemic Also, the research makes a recommendation based on the relation between the announcement of the Covid-19 pandemic and the performance of the manufacturing companies at the NSE, which was negative, that firms should be consisted with the announcement of dividends on annual basis. This in return will boost their performance and cushion them against the effects of announcements of pandemics in the future.

5.5. Limitations of the Study

The study, which was conducted in the context of Kenya, encountered several limitations, and more so faced by the challenge, which has been posed by the Covid-19 pandemic. While the study was to be based on the research gap existing regarding the matter of the announcement of Covid-19 and its effects on manufacturing companies at the NSE, little literature review was found in the Kenyan context and which in return implied the study was being ventured in a new field. In terms of general application of the research findings, the study has only focused on manufacturing companies at the Nairobi security exchange and may be limited to generalization to other companies trading at the NSE.

5.6. Suggestions for Further Research

Since Covid-19 pandemic is still termed as an ongoing pandemic as at the conclusion of this research work, the researcher suggests that future researchers should consider making an analysis of the real effect of Covid-19 on the manufacturing companies at the NSE stock market after the pandemic is over and establish the general influence for the entire duration that the effects of the pandemic have been experienced. Furthermore, further research needs to be done on the effects of pandemics on stock markets and security exchange markets such as the NSE and how this affects companies trading at the securing exchange.

Considering findings from the study suggested only a relatively low percentage of the changes in the stock performance of manufacturing companies at the Nairobi securing exchange was explained by the variables in the study. I recommend future studies should incorporate internal factors related to the specific firms that participate at the NSE and establish if they could be attributing to a greater extend to the changes in performance of the stock market. More emphasis should also be made on the impact of Covid-19 on the general economy and establish whether there may be some other economic influences brought about by covid-19 as the stock market performance is just a single indicator of the economic health in a nation.

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