COVID-19 EFFECT ON SHARE PRICES VOLATILITY OF LISTED COMMERCIAL BANKS IN KENYA

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DECLARATION

I declare that this research proposal is my original work and has not been presented for a degree in any other university for purposes of examination.

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This research project has been presented for examination with my approval as University supervisor.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The COVID-19 pandemic can be viewed as the most genuine test for all businesses dealing with money in more than a century. In order to restructure and recalibrate for what is yet to come, banks have been forced to reshuffle some enormous demands that require significant modifications as the pandemic develops. Governments must build a viaduct to bring the private sector to the other side of the epidemic in good shape, just as they would to navigate through the disaster. Governments would want to keep a close eye on the revenue system as much as Central Bank have a key role to play in sustaining foreign exchange, since the downside does not originate from the market meltdown like it did in 2007/2008. (Insights, 2020)

Kenya, for instance, experienced its first significant economic impact from COVID-19 on the stock market. On March 13, 2020, when a COVID-19 case was first made public in the nation, trading was suspended at the Nairobi Securities Exchange (NSE) as a result of the NSE 20 guide falling by more than 5%, with Safaricom and KCB stocks falling by 5.4% and 7.0%, respectively. As overseas investors react to the spreading pandemic, the market had fallen even more gradually as of day close on May 8, 2020, with the NSE 20 stock index declining by 26.05% on a year-to-date (YTD) basis (insights, 2020). Additionally, players in this sector are trying to maintain their operations running, in spite of unfavorable measures such as social distancing which hurt some of their operations that are hard to run with social distancing in place. These players in the sector attempt to overlook client and income assumptions, in spite of clients straining and zero costs on loans. The banks need

to look ahead and develop techniques, establish brands that influence their market and plan ahead for such emergencies (Baker et al.2020).

The investigations shall be secured on speculations pertinent to the value of share execution and consistency. Back in 1965 Fama, considered the model of effective marketing as a cutting edge due to the assumption that it makes; the cost of a stock. Furthermore to this, the irregular walk model holds that, the cost followed by the presentation of any given security market takes an arbitrary development with the possibility of changing starting with one course then onto the next one without an ensured figure (Rossi and Gunardi, 2018; & Sandev, Metzler and Chechkin, 2018).

Previously published research materials do not cover sufficiently how the security market has been impacted by COVID-19 as it is an epidemic that had not been experienced before across the world. A large portion in their study showed that, the epidemic caused by COVID-19 had affected how safety markets are being presented, however in various sizes. While Baker et al. (2020) revealed that the security market of the United States had been poorly affected by COVID-19, this research cannot draw from those findings since the economy of the US is not at par with that of Kenya.

1.1.1 COVID-19

Covid -19 has been deemed as an illness brought about by Covid, that shares similar DNA formation with Severe Acute Respiratory Syndrome (SARS). While the underlying cases being not exceptionally serious as announced in China, various nations had seen various degrees of severance relying upon the inhabitant's resistance and medical services offices accessible in the states. The sickness turning into a genuine danger compromising the

existences of a great many people around the world, the infection is contracted through direct with tainted respiratory liquids through lead with contaminated people or communicating with tainted articles. The infection was announced a general wellbeing crisis of worldwide concern influencing the method of living and business tasks from one side of the planet to the other, since March 2020.

Numerous countries, not excluding Kenya, having being influenced by the deadly disease, the outcomes in the endeavor to manage the infection have fundamentally influenced the monetary activities inside the country. Majority of Kenyan businesses recorded in the securities exchange had their business sectors for the items they front in the market experience huge blows largely attributed to the dynamic COVID-19 epidemic, understanding the infection patterns, realities and dangers is significant for any given company, which hopes to remain effective. The firms must grasp effective means of combating or managing COVID-19 to recapture their task energy. While keeping a safe distance is still one of the focal ways to manage this pandemic, businesses are expected to adopt better approaches for offering their items while as yet observing the rule to avoid up-close interaction with customers, a preferable option being online deals/ sales.

The COVID-19 epidemic impacts have taken a center stage globally with a few investigations as of late being started with two significant methodologies for COVID-19 impact assessment. A portion of the examinations like Al-Awadhi (2020) and Fernandez (2020) utilized the quantity of recorded and verified cases in select countries to gauge the extent to which COVID-19 has affected the stock execution. Consequently, the methodology utilized by another scholar is the total days the dynamic cases have been recorded in the select country to quantify the variable (Adenomon and Maijamaa, 2020).

Notably, the effect on the greater part of the nations in Africa is because of steps taken to manage the infection; the present examination embraced the proportion of days from the declaration of the main case to gauge the variability of the virus.

1.1.2 Share Prices

Share price denotes the cost winning today in favor of a specific stock. According to Sloan (2021), Stock cost gives a proportion of association's worth and execution in a proficient market. The stock or offer cost becomes a fundamental marker that financial backers use to settle on a venture choice (Gill et al., 2012). The cost of stock normally vary which is a decent marker of a company's exhibition (Sloan, 2012). The nation’s economy is greatly affected by variance in share cost. According to Ngugi (2014) Monetary or political essentials profoundly affect listed prices of shares. These elements influence offer cost yet are without the offer market. Numerous brokers and financial backers within the market are consistently looking to find out if there is a pattern being left by the offer costs, this pattern is basically founded on the central conditions. The solidness up and down of offer costs at the protections trade in Kenya is for the most part subject to the market influences. That is the interest and supply which straightforwardly affects capitalization of the market by listed organizations and market forces overall (Parsrun, 2014; & Sifunjo and Mwasaru, 2012).

1.1.3 COVID-19 and Share Prices

Taking an economic perspective, analysts agree that a connection between the epidemic and economy imbalance exists. While generally investigations have demonstrated a

harmful effect on how the security are showcased, penetration of the disease fundamentally varies starting with one country then onto the next, the actions taken by every country are unique and have various ramifications to the economy and the financial recuperation stands to be obscure wonder according to (Zhang, Hu and Ji, 2020).

Notably, the epidemic- COVID-19 presented an exceptionally extraordinary danger to the financial backers because of the unstable patterns found in the security market. On the dependability of data as indicated by Fernandes (2020), a great deal should be done to build up the patterns of COVID-19 in light of the fact that there is absence of enough data on the infection. Jones, (2020) projects that while it is normal that toward the day's end, speculations ought to recuperate at one point, securities exchanges will in any case outlive COVID-19 epidemic, blended assumptions are normal while a portion of the typical companies' routine of doing things relied upon to transform forever .While security market assumes a basic part financing the tasks of recorded firms issuing outline just as giving venture freedom to financial backers. Going forward, it is imperative for organization to grasp in depth how the security market is being influenced by the epidemic. Because this is a global pandemic, it is not a wonder that the New York Stock Exchange might be displaying a similar pattern. Nonetheless, there is dismal studies concentrating on the impact COVID-19 continues to have in the Kenya Stock Market. This examination will zero in on bringing that knowledge as the greatness of the impact varies starting with one country then onto the next as seen in (Zhang, Hu and Ji, 2020).

1.1.4 Listed Commercial Banks in Kenya

In Kenya, the business of banking is controlled and regulated by the CBK. In Kenya, there is a total of 43 banks; of these, 13 have foreign ownership. Only 11 banks are listed with the NSE.

Locally, the financial industry has gone through countless administrative and monetary alterations. These alterations have resulted in some great changes to the financial area allowing unfamiliar banks to set up branches in Kenya (Irungu, 2013). The banking business is administered by the Banking Act not excluding Prudential Guidelines. Were and Wambua (2013) notes that the banking area in Kenya assumes an essential part in monetary area, chiefly concerning saving preparation and arrangement of credit.

All the financial arrangements executed by CBK are mainly channeled through the banks to get to the economy (Onuonga, 2014). A money related approach taken on significantly affects banks' reasonable worth and the vast majority of banks' particular factors that affect return on stock of financial institutions are stock value, current income, potential profit, wellsprings of capital and capital dividends, and intended capital construction (Lilian, Mungai and Eddie 2014). Financial institution similarly carry out the function of overhauling and collection hazard while the board and loan costs straightforwardly influence banks' exercises (Akingunola et al., 2012).

Recorded institutions have witnessed their offers take on a downward spiral sequentially since March the year 2020 when the initial COVID 19 infection was accounted for in Kenya. This misfortune in esteem is directly attributable to financial backers auctioning their offers because of a faint eventual fate of corporate benefits in light of the epidemic.

Since then, the NSE-20 Share Index took a downward trend and has been dipping throughout since March 2020 demonstrating a poor exhibition of the offer costs of the hidden organizations. In March the security exchange displayed extremely low levels in prices, which was comparable to 2003 during state change to previous Kenya ruler; Mwai Kibaki's time (Business Daily, 2020). As indicated by business day by day, not set in stone that unfamiliar financial backers have been net dealers in the COVID 19 time, and taking into account that they represent larger part of the day by day exchanging NSE, their selling have hugely affected the stock market.

1.2 Research Problem

This dynamic COVID-19 epidemic first was discovered in China towards the end of 2019, and reaching Kenya on the third month of 2020, things have never been the same for businesses. Attempts from public authority to contain the penetration of COVID-19 wider into the nation include enforcing lockdowns in key counties, and other strategies like keeping a safe distance of about one and half meter from the next person. These hugely affected how business is conducted. The year preceding COVID-19 reaching Kenya, 2019, the economy at that point was giving indications of discontinuance regardless of that, most business banks returned great outcomes in the situation. Non-performing advances (NPLs) were suitable however not at a disturbing rate and could mostly be clarified by reception of IFRS that guaranteed that customers with discontinuous reimbursement history were minimized according to the new prerequisites (Kenya, 2020)

Regardless of the undeniable difficulties, the COVID-19 pandemic furnishes banking foundations with an interesting chance to assemble trust. Banks are as of now settling on

huge choices affecting revenue and non-financed pay, Liquidity, staff and different costs, and impedance. In Kenya given that it was not the first location of the epidemic, it should have been an ideal situation, as it was presented with sufficient opportunity to take padding actions to prevent the disease from penetrating the nation before the main case was reported. From the time the primary case got recorded, there have been blended responses from organizations. A few, similar to the Standard Chartered Bank, NCBA Bank and Equity Bank have been compelled to pull out from repayment of the 2019 profits as the epidemic vulnerability builds (Omondi, 2020). According to Andae (2020) different organizations like Kenya Airways put forth a crisis bailout proposal adding up to the tune of Ksh 7 billion. This shows the critical circumstance in the NSE. The present circumstance with firms being up to speed in this circumstance shows the need of being fully aware of impacts pandemics pose on the cost of shares.

Different researchers and analysts endeavored to perform investigations in this area, yet it has not been completely tackled and that is the reason we actually have organizations encountering hits during this periods of the epidemic. Dough puncher et al. (2020) set up an exceptionally antagonistic impact on the US security market. They implied that the impact was extremely antagonistic and showed no knowledge on the nation previously. Their examination is barely dependable in Kenya because the legislatures' reaction towards the epidemic was assorted between both economies and security market progressions are likewise at various levels. In addition, it’s outstanding that the level of seriousness in this epidemic are likewise unique.

A study by Al-Awadhi (2020) conducted in China set up huge and adverse consequence the COVID-19 plague had taken on the nation securities exchange. Because this nation

gave birth to the illness, a huge impact was normal, justified by the fact that there was no other nation to benchmark with or learn from. This gave China little room for making fundamental arrangements unlike the case in Kenya. Likewise, the republic of China has a much more developed economy with an alternative system, COVID 19 examination results being derived from the nation can't be acknowledged in Kenya without having to be benchmarked or reconfirmation through neighborhood research. Different examinations- Zhang, Hu and Ji (2020) and Fernandes (2020) on impact of COVID 19 are all biased towards adverse consequence, however because they were carried out in an alternate financial arrangement, there are chances that regardless of whether they will concur, seriousness and meaning of the outcomes might contrast requiring a nearby exploration utilizing neighborhood information.

In the African context, Ozili (2020) found out that the quarantine and lockdown measures embraced by many of the African countries were bringing about serious stock market crash and could even bring about economic decline. The research had nevertheless zeroed in on the Covid-19 effect to the normal performance of the economy in the nations. Some other affiliated research done in Nigeria established that there perhaps a pessimistic effect on the market security but most concerning was the irregularity in the consumer price index (Adenomon & Maijamaa, 2020). The effect in Nigeria can be made up of by oil collapse and for that reason though applicable, the outcome cannot be concluded to show feasible effect in Kenya. The research can nevertheless direct on the common effect in any other market but not in Kenya.

Study conducted in Kenya regarding alike pandemics are the Asongu (2012) and the Koech and Rotich (2013). The studies focused on the 2008 Great Stock Market Crash and the

post-election violence, respectively. They were carried out at times when the stock exchange was not functioning at its current capacity, which allows derivatives to be used to agitate against advancements and run the risk of shortening the agreement time for stock marketing deals. What is the impact of the COVID 19 epidemic on the share price volatility of listed commercial banks in Kenya? is the research's central question, focusing on the local and current availability of data.

1.3 Objective of the study

This study's objective was to demonstrate if any, how COVID-19 affected Kenya's listed commercial banks, namely their share price volatility.

The key objectives were:

1. How trade volume has influenced share prices volatility of listed commercial banks in Kenya after the epidemic of COVID-19.
2. How dividends have influenced share prices volatility of listed commercial banks in Kenya after the epidemic of COVID-19.
3. How inflation has affected share prices volatility of listed commercial banks in Kenya after the epidemic of COVID-19.
4. How exchange rate has influenced stock prices volatility of listed commercial banks in Kenya after the epidemic of COVID-19.

1.4 Value of the study

This study is noteworthy in a number of ways. It is well recognized that stock performance serves as a precise indicator of everyday conditions in Kenya. Because of this,

understanding how different variables can affect stock price performance is similar to understanding how those forces can affect the economy as a whole. The research is expected to be useful for policy, both in theory and in practice. Actually, there are participants who work for listed commercial banks and participants who work for the NSE. The investors themselves and other potential investors stand to gain from the empirical side.

Understanding how the pandemic has affected the consumer price index will help investors make informed decisions about whether to buy or sell in order to benefit from changes in share price. Executives will also understand how to function during a pandemic without having a detrimental impact on the stock prices of their companies. Participants in the commercial banks that have been listed will also be able to predict how the pandemic will affect stock prices and come up with backup plans to prevent panic buying and trading that might trigger a market collapse.

The research will enable policy formulation that is targeted toward minimizing the negative consequences on stock prices. Government and commercial banks are where most major policy decisions are made. Properly drafted policies will make early advise and identification of necessary measures easier, preventing management and investors from being caught off guard. Government legislators who care about the economy as a whole will also advance smart proposals to improve the economic climate for stock market activities.

Theoretically, professors, analysts, students, and other participants in the academic domains will also benefit. Future and current analysts will refer to the findings of this research and will also be more informed about the performance of the stock market. Understanding the implications of share price will be beneficial to academics, particularly finance students. They will nonetheless contribute to our understanding of the myriad factors that affect share price. Since the pandemic won't be examined in isolation, other academic staff members, such university professors, can inform students more effectively about stock market performance. It should ideally be investigated along with three other factors that are thought to be able to affect a stock's performance.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section shall borrow from other published works completed so far pertaining the impact that COVID-19 has had to the banking industry, specifically listed business banks. This part of the paper shall center around hypothetical writing audit zeroing in on hypotheses for the examination factors, determinants of offers costs and the applied structure.

2.2 Theoretical review

The researcher shall be guided by a number of models that are applicable to this topic, financial exchanges and the ones that might be having some associations to the degree of how the security market is executed. In order to accomplish the exploration targets, the hypothesis of arbitrary and proficient market model shall be the main theories guiding the study at hand as the researcher finds them applicable.

2.2.1 Efficient Market Theory

Discovered by Fama (1970), this theory considers the market as just productive only when cost charged in the market thoroughly think about accessible data conservative resource's worth (Reinikainen, 2010). EMH is simply founded on the idea that a quick assimilation of all sort of data accessible in the market in costs of stocks will justify the outcome to a typical benefit for financial backers. EMH certifies that no single individual or a financial backer can constantly acquire significant yields since all freely significant and accessible data is ordinarily and quickly fused in stock costs (Mittal, 2015). The EMH is dependent

upon suppositions, in particular that all financial backers are reasonable, the cost of the stock is in every case right, and a financial backer can't make an unusual return (Nielsen, 2016).

The hypothesis contends that in the genuine market activities, the offer is still up in the air in the most productive way to mirror the economic situations for a firm. The hypothesis recommended that the offer cost ought to be mirroring the genuine worth of the Institutions and no additional profits are expected to be derived by the institution if it is outside any of the agreed upon assurance of the offer cost (Rossi, and Gunardi, 2018). Following this, the hypothesis accepts a reasonable that gives every financial institution data fairly for everyone to profit without favor or discrimination. This is important as it infers that none of the financial backers can tie down better data with the aim of exploiting undervalued shares or overrated shares in the improvement of their speculation portfolio according to (Alam, 2017).

In any case, the investigation by Malkiel (2000) puts forth a different angle noting that the idea of having a productive market was a hypothesis and if it were applied in the genuine circumstance its presumptions would fail to hold. For certain people being responsible of certain applicable data that might not be easily accessible to every financial backer has been something typical similar to the findings revealed by studies conducted by Malkiel (2000) during the situation of 3Com and Palm Pilot. The hypothesis anyway are still applicable because such occurrences have experienced a downward trend projection by experts in the capital market during their estimating strategies and market forces that power the offer costs to return to ordinary. This hypothesis will be put into consideration for this

study because of the implication it has on the offer evaluating which influences trade execution of the security.

2.2.2 Random Walk Theory

The random walk model was set up by Regnault around the year 1863. This theory looked to set up possibility in comparison to the trade markets. The hypothesis contends that trade costs of the security are capricious with a possibility of moving in any given side from the current sitting position. Explained further, it shows that the offer costs are unstable and volatile with the ability to react differently and move in a downward or upward general direction at a particular second. The investigations by Sandev et al. (2018) reveal that security costs can be expected to move in any side, downward or upward, but cannot be ensured to remain moving in one direction as an irregular move can be expected. (Sandev, Metzler and Chechkin, 2018).

While acknowledging the idea of market productivity, the hypothesis contended that the costs of the securities were free somewhat and that there could have been no between conditions between the market's costs (Fama, 2019). The stock costs don't ensure any development climate dependent on the authentic information of a similar firm or the pattern existing on the lookout. As per Sandevet al. (2018), the way in which the offer costs of one institution was expanding or going downhill was explicit to the condition of the organization and also that of the market as a whole. The financial backers are left with a problem having to speculate using alternatives to form patterns in the securities exchange couldn't be estimated with exactness to exploit the market.

Nevertheless Hamid et al. (2017) in their examination of the arbitrary walk hypothesis set up negating discovering which scrutinized the legitimacy of the irregular walk hypothesis. The examination set up that the market costs were by one way or another consistent and small changes were seen in the markets security which could give a bit desire to financial backers. This hypothesis has been thought about for the present examination because of the trial of proof of the changes in prices of security during the pandemic in the NSE.

2.3 Determinants of Security Prices

In this part, the research will put into consideration the elements impacting the execution of the margin of safety. The researcher will think about such factors as, the execution, manner in which they associate or affect the security market, and the way they are measured. The focus of this particular study shall be on exchange volume, exchange rate, dividends, the NSE, Dividends, Inflation, and finally COVID-19

2.3.1 Trade Volume

Trade volume shows total quantity of offers being exchanged in any given financial exchange in a particular space of time. Overall, the assumption has for the longest time remained that there is an immediate relationship between the exhibition and the exchange volume of a particular financial exchange. This suggests that as the volume exchanged expands, and assumption can be made that the cost will shoot upwards. Consequently, this shakes the security market and causes some movement. Financial backers has over time utilized this degree of exchange to make critical decision like when and which stocks to hold onto for longer period and which ones to cash in. Firms boasting of good performance

draw in more financial backers, which demands for additional protections to be taken to the market most likely at the expenses of more exorbitant cost. A positive correlation was noted in almost every one of the exchange volume proportions to the degree of execution during a security trade (Gul and Javed, 2009).

Studies undertaken by Aronso (2011) and earlier by Stickel (1994) showed that exchange volume has always been the primary driver of the security market. According to Stickel's research, financial backers frequently base their venture decisions on the volume of market exchange. The analysis assumed that an increase in the volume traded was consequently accompanied by an increase in the presentation of the security trade; otherwise, it would signal the beginning of offer inversion, making investors more cautious about the stock, as stated in (Aronson, 2011).

The all-out number of offers exchanged, which is available at the NSE stock execution site, was used to estimate exchange volume in the current investigation. As demonstrated by the works of, the number of offers exchanged has a similar impact to the financial worth and number of values traded later chosen for this particular inquiry (Gul and Javed, 2009).

2.3.2 Dividends

Dividend can be referred to the portion of benefit of company get-togethers, normally conveyed or distributed amongst company's investors because of the capital investments that they have put in towards the organization. Accordingly, profit is the money installment or pay that organizations circulate among its investors. It can likewise be paid in type of extra offers being given to the current firm investors. After profit declaration, the offer cost of a firm might rise (Mondal and Imran, 2012). The inability to report and deliver profit

might affect company's offers costs just as denying existing investors extra assets to contribute (Oseni, 2009).

2.3.3 Inflation

It is characterized as a constant ascent in all value stages of general labor and products throughout a predefined time span in an economy (Mugambi and Okech, 2016). Any expected swelling has the capability of influencing ostensible loan cost that is generally charged, this prompts high cited reimbursements and consequently front-stacking installments to reward the deficiency of the buying power for a given timeframe (Bank of Ghana, 2007). The vulnerability from relentless insecurity of any money because of temperamental degree of expansion in an economy as a rule prevents admittance to outer financing for contract loaning (Bank of Ghana, 2007).

2.3.4 Exchange Rate

According to (Kabeer et al., 2016) the term exchange rate is notably used during inter-country transactions whereby on nations cash has to be traded in or exchanged for another country’s money. It has huge implications on stock in the mother country and also might affect stocks in other countries abroad. In case of enthusiasm for a specific currency of a certain nation, and the nation included is a fare arranged nation, a decrease in intensity is generally bound to happen on trades, subsequently negatively affecting homegrown financial exchange (Kirui, Wawire and Onono, 2014). Mlambo, Maredza and Sibanda, (2013) note that the vacillations in pace of trade can possibly influence execution of securities exchange just as a nation’s monetary area.

2.3.5 COVID-19

The epidemic caused by the virus COVID-19 has presented itself as yet another infectious infection disrupting activities in the worldwide market. While it has removed the social necessities from mankind, the epidemic has added to net decrease on genuine activities of the economy. Brought down execution of ordinary routine of business meaning that profits have been unfavourably influenced. The negative exhibition is believed to have been affected by the adding up to further reduction in presenting safety markets. Degree of interest for stocks, which adds to a decrease in the presentation of safety markets. One recent research disclosed that there is a broad connection between the level of epidemic and presentation of security market (Al-Awadhi et al., 2020). The examination called attention to that further decrease could be anticipated if the pandemic proceeded without a long-lasting treatment or avoidance being acquired.

2.4 Empirical Review

Under this part, the examination investigates the current examinations which have endeavored to set up the current connection the epidemic; COVID-19, and the security market execution both within Kenya and across the global market (BROWN, 2020) Another recent researcher undertaken by Baker et al. (2020) with regards to the United States of America, followed a content guided strategy also showed strong negative effects escalated to the security execution mainly caused by the disruption COVID-19 has brought about. Their research based findings also revealed that COVID-19 had disrupted the security market in a way that no other epidemic has ever disrupted. This shows that COVID-19 is also hitting hard across the globe and is becoming a thorn in numerous

economies worldwide. Notwithstanding, the investigation in US at the time had the most noteworthy populace of diseases from this epidemic. However, the US has a very established government hence it would be difficult to infer their cases to Kenya, where the study shall be carried out.

The Chinese security exchange has also been examined to see if the epidemic of COVID has had any effect negatively or in any given manner. The investigation which applied spellbinding measurements model methodology set up that as more cases were being accounted for and passing expanded, the financial exchange kept on declining in the presentation Notwithstanding, China is believed to bear responsibility for the widespread of the infection though Kenya appears to take gradual steps in handling the epidemic and the financial aspects recuperation varying from that of China and making the current examination significant(Awadhi et al., 2020).

Another examination which zeroed in on the overall execution of the economy on the planet which considered an instance of thirty countries set up that the COVID-19 was affecting the overall execution of economies worldwide according to (Fernandes, 2020). The investigation set up that even the genuine effect of the COVID-19 was at this point to be acknowledged as the greater part of the measurable data where verifiable information of SARS of the era of 2009. Majority of the economies resulted to locking down their nations, Fernandes (2020) set up that as a rule, these economies performed inadequately hence affecting the protections lackluster showing all around the globe and that's only the tip of the iceberg so to all the help business recorded firms. In any case, the examination featured that the genuine effect had not been experienced thus calling for additional

investigations researching the effect of COVID-19 utilizing its own measurements as in the case of momentum study.

Ozili (2020) conducted an examination in the territorial level trying to uncover by which tried to set up the state of countries in Africa , in regard to public financial execution and the impact the epidemic of COVID-19 has had on them. The discoveries showed that the vast majority of the countries had embraced total isolation and lockdown in a bid to check the rapid multiplication of the infection. The examination discoveries revealed COVID-19 brought about genuine monetary emergencies and might even outcome to downturn (Ozili, 2020). This critical presentation decrease was straightforwardly associated with execution of the security market as great execution begins from starting execution of specific firms. Be that as it may, his investigation was excessively broad to acutely notice the development of the stock costs as it summed up financial execution which the current examination was adequately sharp to set up.

In the Nigerian security trade, a scientific study conducted in 2020 revealed that there was proof of the negative effects caused by COVID-19. The study adopted an Exponential GARCH and Quadratic GARCH and design and was carried out by Adenomon and Maijamaa (2020). The examination discovered that with the vulnerability progressing of the epidemic, balance could have been vulnerability from exhibition on the security market. The examination results pointed out that Nigeria security trade was adversely influenced by the epidemic and high unpredictability of the stocks experienced. The examination length was, in any case, a restriction of the with the current investigation zeroing in on the patterns in the stocks listed on Nairobi Stock Exchange within the past 90 days to acquire convincing data.

Locally, setting, the tasks of the business sectors have been tested and tried in tough situations like the epidemic presented by COVID-19. This is revealed in the findings published by Asongu (2012) who focused on execution of Nairobi Stock Exchange securities exchange after the post-political race viciousness where pretty much every action froze inside the country. The examination set up that the circumstance of the savagery brought down the presentation of NSE fundamentally caused unusualness on the securities exchange. Comparative proof happens from the investigation of Koech and Rotich (2013) which took a gander at the presentation of the NSE securities exchange during the 2008 incredible monetary emergency utilizing a spellbinding report approach. The examination highlighted the security market an insusceptible to such outside factors showing an incredible dwindling of the security market to a point where earlier benefits accrued over the years get dissolved. In any case, as this examination alluded to simply related elements, the current investigation is very important to set up the effect of the COVID-19 on the Nairobi Stock Exchange financial exchange because in Kenya up until this day there is not a single publication that has researched this matter

Additionally study by the KEPSA (2020) on the impact of Covid-19 on the economy of Kenya show that 61% of businesses had been affected by the actions being taken around the globe to stifle the virus. The study featured 95 locally possessed businesses comprising 17 areas of the economy. Additionally, there were 32 producers examined by the Kenya Association of Manufacturers (KAM) with the discovery desegregated into the KEPSA report (PolicyBrief, 2020). As stated by the review, many businesses anticipate to be thrown into disorder in these several approaches. Many organizations expect a circumstance where they will have to ask workers to work from their places of residence

thus affecting businesses negatively in the service industries, backlogs and slowed down conveyance because of the lockdown, slowed request for export goods, rise the price of products which will as a result increase the all-inclusive price of manufacturing, reduced flow of capital, travel restrictions, and lessened time of workers, problematic in getting credit from commercial banks in addition to reduced capability to meet interest payments on their loans, and, and reduced appetite of investment from local and foreign investors.

2.5 Literature Review Summary

From the published articles and journals across the world, a large portion of the examinations covering worldwide markets have recorded proof that COVID-19 epidemic varyingly affects the exhibition of the financial exchanges on the planet. According to Baker et al. (2020), the epidemic impacted the presentation of the security market as indicated by the case in the United States of America. Their investigation mirror those of Zhang, Hu, and Ji (2020) who published comparable negative impact yet noticed that the manner in which nations responded to the pandemic was very surprising leading to fluctuating assumptions on execution within the short period. Fernandes (2020) also investigates and posits that that despite the fact that lackluster showing had effectively been recorded, the circumstance was at this point to be open as genuine information was not accessible about this virus, COVID-19. Most reports depending on the SARS insights to clarify about COVID-19. Inside the setting presented by ebb and flow study, no exploration distributions have been conducted because of COVID-19 about security market's exhibition.

The circumstances in Kenya practically mirrored those in South Africa and Nigeria according to Ozili (2020) and Adenomon and Maijamaa (2020) who's both studies investigated adverse consequence, the extent of the disease and the meaning of the exhibition impact have been distinctive between the partner nations. The actions taken by the country are additionally unique requiring the current examination to research the flow circumstance. Despite the fact that the security market is believed to be affected by the states of the worldwide market as a ripple effect, mostly seen during post-political race viciousness execution according to (Asongu, 2012) and the global monetary emergency according to research conducted by Koech and Rotich, (2013) the epidemic caused by COVID-19 has been so absolute requiring this examination to explore on the state. The studies done can pilot on the overall impact in any market but not in Kenya particularly. Focusing on the available data locally and presently, the research for that reason seeks to answer the question; what is the effect of COVID 19 pandemic in the share prices of listed commercial banks in Kenya

2.6 Conceptual Framework

This segment lays out the plan of how the researcher plans to build up the connection between the reliant variable showing how it is affected by the other independent variable in this investigation including the controls and independent factors. The areas took a preview at the heading of the relationship and how the factors were estimated.

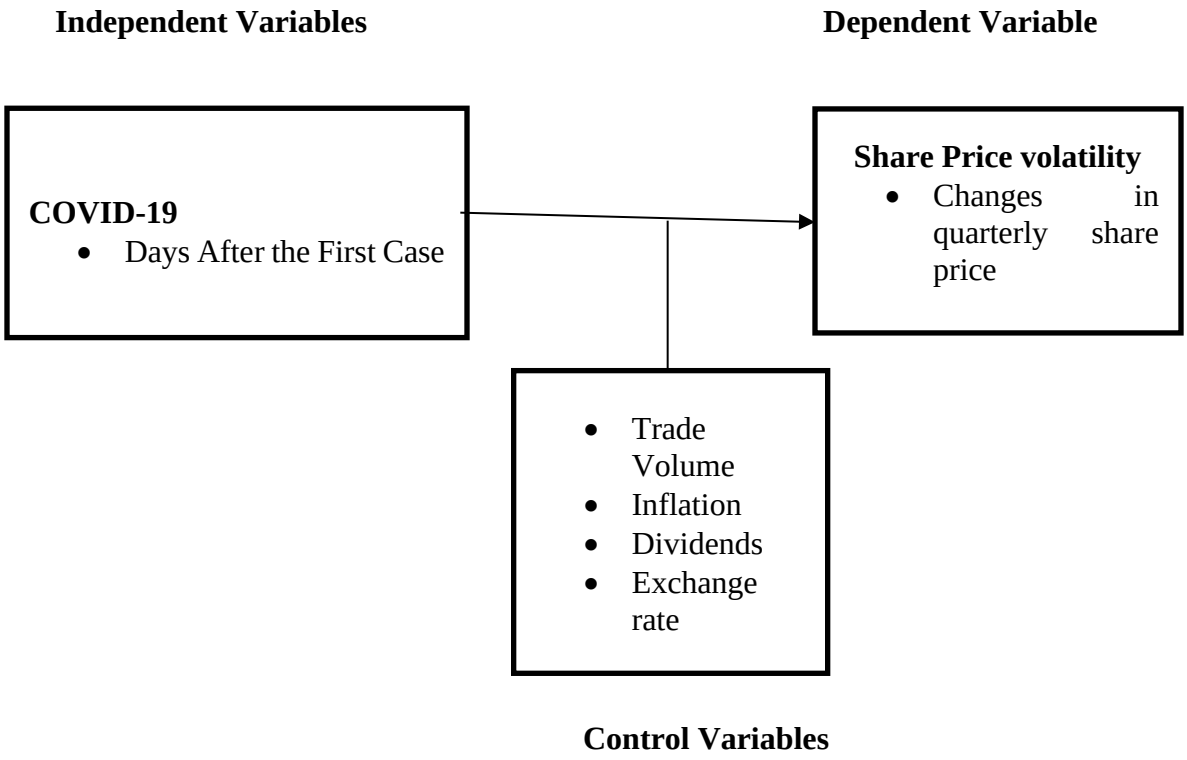


Figure 2.1: Conceptual Model

Source; Researcher (2021)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the philosophical approach that was taken to get results regarding the examination targets looked at. The section provides a detailed analysis of the numerous exercises carried out to ensure the desired results have been obtained.

3.2 Research Design

The approach and framework used to conduct research are included in the study design. It is a blueprint utilized by researchers to answer research questions precisely and objectively for the least amount of money (Flick, 2018). The research design aims to determine the suitability of the investigation by speculating an operational strategy to be able to communicate on the various techniques available and necessary tasks for finishing a research while also ensuring that the procedures used are satisfactorily acquire objective, accurate, and detailed responses to the study's variables (Honghui, 2017).

To ascertain how the stock market responded to the Covid-19 pandemic, this study used event methodology (Dolley, 1993; Fama, 1969). The Covid-19 endemic announcement is categorized as an event, hence event methodology is relevant. The financial markets are expected to use the information at their disposal to forecast the outcome of a specific event (.Mackinlay, 1977). The event analysis focused primarily on changes in stock prices and trade volumes in the days leading up to and following the event in order to evaluate the impact Covid-19 endemic the reaction of the stock market.

The event window was the time frame within which the event was announced. The day of the announcement, as well as the days before and after, were combined to form the event window. The variables' estimation window was their estimation time. Usually, abnormal returns indicate whether the market has anticipated information about the epidemic and are calculated as return during the event window minus typical returns. The expression t0 represents the event date. One year before and after announcements was the event window. The range for this is between -1 year to +1 year. The time frame before to the event is known as the estimation period. As a result, the approach clearly shows how Covid-19 affected the stock market's response.

3.3 Target Population

The target population, can be explained as a total of that load of individuals who fit into a specific determination (Magenta and Magenta, 2003), for this particular situation, the target population included business and banks that are recorded in the Nairobi Stock Exchange. Mutua (2019) notes that, as per the market in Africa, the protection trade only has about 11 recorded business banks. For an evaluation overview on the off chance that the populace isn't huge and accordingly the current examination will take on an enumeration review.

All factors considered, Probability sampling would be the most convenient ass it would involve random selection, allowing the researcher to make strong statistical inferences about target population sample. The sampling technique that would prove beneficial to the study would be the use of stratified sample, researchers would divide the population into homogeneous subpopulations called strata based on specific characteristics.

Each population member studied should be in exactly one stratum. Each layer would then be sampled using another sampling method of probability, in this case -simple random sampling, permitting researcher to approximate analytical computation for each sub-population. This is because the characteristics of the population are in order and diverse to make certain that every attribute is properly represented in the sample stated above.

3.4 Collection of Data

The only secondary sources of information used in this study came from secondary sources that keep this kind of data. Quantitative data on the number of days since the first case was announced was collected for COVID-19. Utilizing quantitative data from the NSE, the cost of shares was calculated using changes in share prices for each firm. Information on dividends was sourced from a number of websites, organizations, the CMA, and the NSE. Data on the currency rate and inflation rate were obtained from CBK.

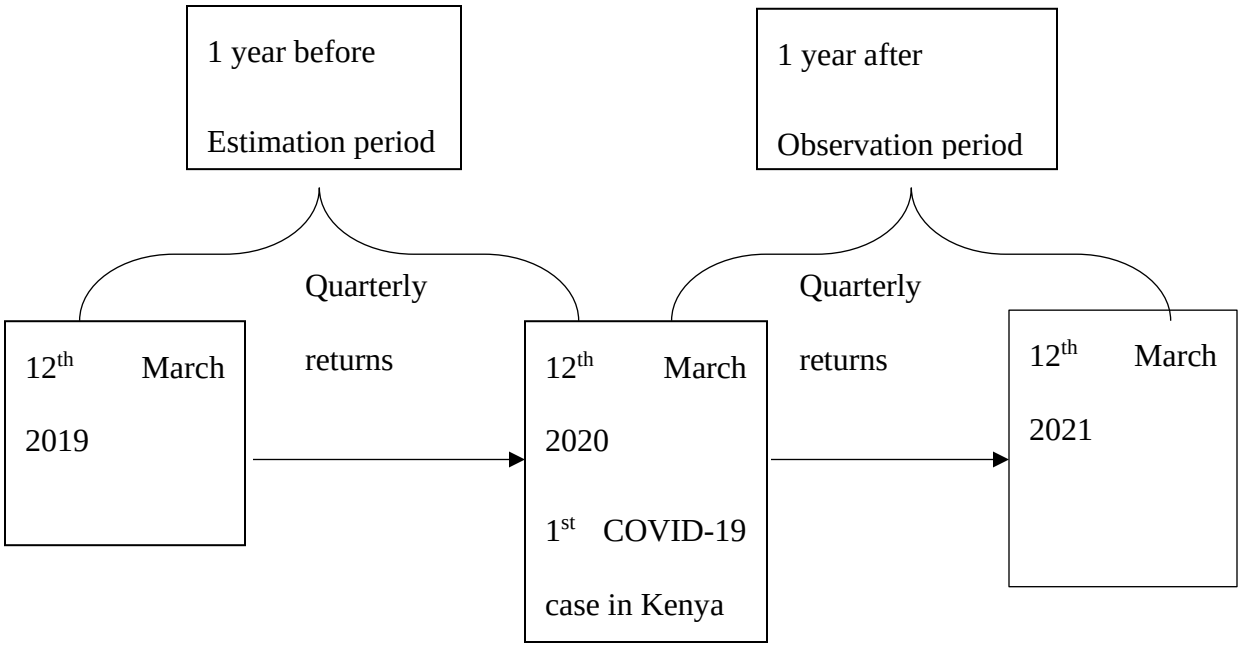
3.5 Diagnostic Tests

To learn the dependability of the realized results, the researcher made use of diagnostic tests in the examination. Multicollinearity and Autocorrelation tests were most likely applied. Durbin Watson was utilized to try Autocorrelation test. In cases where the measurement was under two, it was deemed that a positive autocorrelation exists. Consequently, negative autocorrelation was experienced if there exists more than two prominent. Multicollinearity Test guarantees the information gathered was not biased and that a variable information wasn't identified with a different variable information, the investigation leads a multicollinearity test. Observation of how inflation fluctuates was used to test for multicollinearity. At any given point, if the highest score recorded is in

between 1 and 10 then there cannot be a multicollinearity. However, if the VIF falls under 1 or is noted to be more than 10 then a conclusion can be made of the presence of multicollinearity. At some point when the test bombs one ought to normalize constant factors by picking on a normalization technique about relapse discourse box. As an example one might pick a variable focusing. The heteroscedasticity test was put into practice also in this study.

3.6 Data Analysis

According to Tully (2014), data analysis encompasses statistical procedures conducted to demonstrate and indicate linkages in various variables under investigation. It comprises the procedures in which conclusions are generated in a logical and objective way from the gathered data. The present study adopted event methodology to draw its inferences. For the purpose of this study, event methodology was applied. The Event Study Standard Model was used to accomplish the goal of this study. This study used 2 years as the event window where 1 year is prior to Covid-19, then the day of Covid-19 and 1 year is post Covid-19 pandemic date. The statistical procedures were conducted to compute the abnormal reaction of the stock market. Quarterly data on stock share prices volatility was collected and analyzed to calculate the cumulative abnormal returns.



3.6.1 Analytical Model

According to Fama (1970), the appropriate model used for estimating normal reaction of stock is expressed as:

Step 1: Calculation of Stock Price's expected reaction

The sampled shares anticipated quarterly returns (Dit) will be computed as:

$D_{it}=(P_t-P_t-1)+D0_t/P_t-1$……..**Equation 3.1:**

Where:

D_{it} =Quarterly returns at time t,

P_t=Closing Share Price at time t,

P_t-1=Closing Share Price one day before time t

$D0_t$ =Dividends at time t

Step II: Normal Reaction

The normal stock share prices volatility is computed using the standard market model as indicated below:

$R_{it}=a_i+, \beta_i Rm_t+u_{it}$……. **Equation 3.2**

Where:

Rit= the rate of returns in terms of security I in period t

Rmt= the rate of return in market index in period t

ai=is the constant in the regression equation

Bi=is the slope of regression equation (beta value of security)

u_{it}= is the disturbance term

Step III: Abnormal reaction calculation:

The abnormal reaction of the stock market was determined by using the method of constant mean return. Abnormal reaction are the difference for each share in the event window between actual returns and estimated normal reaction. This comprised of the unexpected components of the returns, which was defined as error terms in the econometric model. Error terms denotes deviation in the dependent variable, which was unknown and not produced in the dependent variation. Abnormal reaction was computed as indicated below:

$AR_{it}=R_{it}-NR_{it}$

Where:

AR_{it}=is the Abnormal Return of stock I in time t,

R_{it}=is the Actual Return of Stock i in time t,

NR_{it}=is the Normal Return of stock I in time t

Step IV: Average Abnormal Reaction t, AARt estimation

This was computed to determine the effect of the overall sample. The average abnormal reaction (AARs) was estimated as shown during the event period (-1 to +1):

$AAR_t=1/N\sum_t^t = kARit$

Where:

AAR_t= is the Average abnormal reaction on stock at time t

AR_{it}= is the abnormal Reaction of stock i in time t,

N= is the Number of securities in the sample

Step V: Cumulative Abnormal Reaction (CAAR) Computation

The cumulative average abnormal reactions (CAAR) was calculated for the event (Covid-19 pandemic). This was attained first by calculating for each variable the cumulative abnormal yield (CAR) and then finding the average CARs for each day. The formula for CAR and CAAR for each variable is indicated below:

CAR_t=Ari,t1-…….+Ari, t2=$\sum \quad ARit$

CAARt= $1/N\sum_{t-K}^{t+k} = kARit$

Nt=l t=tl the market model that will be used; Y=a+b1x1=error term.

Assuming that values, indices and their respective reactions are normally distributed during the event duration, the t-statistical method was used to assess the value at a confidence interval of 95 percent, using the average cumulative abnormal return and standard deviation to establish the suitable empirical t-statistics. The test of significance of abnormal reaction was conducted using the hypothesis:

H0: $AR_{it}=0$

H1:$AR_{it} \neq 0$

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The chapter discuss in detail the analysis of data, discussion and interpretation of findings. The objective of the study was to determine the stock share prices volatility to Covid-19 using the all commercial banks listed in the NSE. The research was a census. This event study period if for 181 days. The estimation period was from 12th March 2019 to 11 March 2021, the event day is 12th March 2020 when the first case if Covid-19 while the observation period is 13th March 2020 to 12th March 2021.

4.2 Descriptive Statistics

The resulting abnormal returns, which were computed from the daily and predicted returns, were used to calculate the average cumulative abnormal returns. The analysis's findings are listed below after they were plotted on a graph.

4.2.1 Daily Stock Returns

Daily Stock returns was obtained from the formula

$R_{i,t} = (P_{I,t} - P_{i,t-1}) / P_{i,t-1}$

where Pi,t, Pi,t-1 are the prices of stock i on date t and t-1 respectively.

The research share prices of 11 listed commercial banks for a period of 11th March 2019 to 12th March 2021.

Table 4.1: Daily Stock Returns

Maximum Return	Minimum Return	Average Return
0.300654	-1	-0.001145706

4.2.2 Expected Return

To obtain the expected return the research used the market mode.

$E(Ri,t)= \alpha i + \beta i\ Rm,t + \varepsilon i,t$

The coefficients αi, βi were estimated through a linear regression model between the company's share price and the market price index NSE 20 index during the estimation window, 12th March 2019 to 11 March 2021.

Below tables shows the returns for NSE 20 share index. In particular there is a sharp decline on the stock returns after the announcement of the first COVID19 case in Kenya on the

12th March 2020. The sharpest fall is on 13th of March 2020 when it recorded a negative stock return of -0.0501 (5%) fall. The stock appears to recover ruin the month if April oscillating in positives and negatives.

4.4 Inferential Statistics

SPSS software was used in this study to run the paired t-test of significance for average abnormal returns for the period before and after the announcement date

4.4.1 Alpha, beta standard error and RSquare

Below table shows the alpha, beta standard error and RSquare calculated as a function of the stock returns for the companies (known ys) included on the census and the stock return for NSE20 index (known xs) as the market return. The stock returns are during the estimation period

For National Bank of Kenya Ltd prices remained constant throughout the period, hence no reaction. The banks experienced the highest beta meaning they are sensitive to the market model, KCB group has the highest Beta.

Rsquared explains the extent of variability of the stock explained by the Market Model. KCB Group Plc has the highest at 42%, while Stanbic Holdings Plc has the lowest at 0.01%

COMPANIES	Alpha	Beta	Standard Error	R Square
NSE20				
ABSA	0.0007	0.4968	0.0069	27.03%

	-	-		
BK Group Plc	0.0036	0.0593	0.0182	0.08%
The Co-operative Bank of Kenya Ltd	0.0011	1.1742	0.0134	35.37%
Diamond Trust Bank Kenya Ltd	0.0012	1.2666	0.0221	18.94%
Equity Group Holdings Plc	0.0010	1.2651	0.0140	36.91%
	-			
HF Group Plc	0.0017	1.0595	0.0334	6.66%
I&M Holdings Plc	0.0015	0.6914	0.0173	10.25%
KCB Group Plc	0.0017	1.3824	0.0137	41.93%
National Bank of Kenya Ltd	0	0	0	0
NCBA Group Plc	0.0015	0.9440	0.0139	24.68%
		-		
Stanbic Holdings Plc	0.0008	0.0431	0.0344	0.01%
Standard Chartered Bank Kenya Ltd	0.0007	0.4618	0.0143	6.87%

4.4.2 Test of Significance of AAR

The results of the paired t-test for significance are as follows;

Table 4.2: Paired Samples Statistics of ARR

		Mean	Std. Deviation	Std. Error Mean
Pair 1	AAR Before	-.416060	.4522390	.1430105
	AAR After	-.786910	3.7824438	1.1961138

Table 4.7 indicates that the AAR mean for the period after the announcement date was -0.786910. AAR mean was -0.416060 for the time frame prior to the announcement date. This indicates that following the announcement date, the average abnormal returns grew unfavorably.

Table 4.3: Paired Samples Test of AAR

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	AAR Before - AAR After	.3709	3.5316	1.1168	-2.1555	2.8972	.332	9	.747

The paired t-test statistics was calculated with 5% level of significance. The p-value (0.747) is greater than the significance level of 5% hence the acceptance of the null hypothesis that announcement of the Covid 19 pandemic has no effect on stock prices

4.4.2 Test of Significance of CAAR

Following the calculation of the paired t-test for significance, the results are as follows.

Table 4.4: Paired Samples Statistics of CAAR

		Mean	Std. Deviation	Std. Error Mean
Pair 1	CAAR Before	-2.390630	.8806145	.2784747
	CAAR After	-13.793080	3.6306126	1.1481005

According to Table 4.9, the CAAR mean for the period after the announcement date was -13.793080. The CAAR mean was -2.390630 during the period prior to the announcement date. This indicates that following the announcement date, the cumulative average abnormal returns dramatically increased negatively.

Table 4.5: Paired Samples Test of CAAR

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 CAAR Before - CAAR After	11.4025	3.8880	1.2295	8.6212	14.1837	9.274	9	.000

The paired t-test statistics was calculated with a level of significance of 5%. The p-value (.000) is less than the significance level of 5% hence the rejection of the null hypothesis that announcement of the Covid 19 pandemic announcement has no effect on stock prices. Therefore, it is imperative to note that cumulatively the announcement of the Covid 19 pandemic announcement have a significant effect on stock prices

4.5 Interpretation of the Findings and Discussion

This analysis concluded that after the Covid 19 announcement, listed commercial banks in Kenya saw negative returns. Since the efficient market theory states that stock prices incorporate all available information into the stock immediately, the existence of negative abnormal returns proves that listed commercial banks in Kenya are inefficient. As a result, there are no abnormal returns.

According to the research, it's highly challenging for investors to profit from companies that have issued COVID 19 measures, particularly starting the day after the announcement, as shown by the negative cumulative average abnormal returns that persisted even after the announcement.

This demonstrates indeed that Covid 19 are bad news to investors and indeed affects stock returns. In tandem with the study findings, Various studies have been conducted on the share prices volatility of COVID-19, including one conducted in Indonesia by (Zack et al., 2020) using customer goods sector companies listed on the Indonesian stock exchange that deals with essential goods. Their independent variable is the volume of daily stock prices, shares, and indices traded in the Indonesian stock market ninety days before COVID-19 was announced. During the earlier phases, when the fever was high, there was a lot of turbulence. The announcement regarding the COVID-19 sparked widespread panic, causing customers to sell their stakes while others attempted to buy. Despite the fact that COVID-19 is non-financial information, it has an impact on stock prices and trading volume. Customer goods sector companies were a good example because they produce goods that are necessary for human survival.

In China (Zhang et al. 2020), they use the TGARCH model to examine market volatility caused by the epidemic in China, the Netherlands, Sweden, the United Kingdom, and the United States. Their forecast period begins in 2015, and the event window runs from December 2019 through April 2020. Their goal was to determine the impact of COVID-19 news on the China Stock Exchange from other nations, as well as the impact of COVID-19 news on the stock as well as the news China on the of other countries. They remark that the stock market in China remained relatively stable in comparison to news from advanced

countries; yet, they observe that the spike in China influences volatility in the stock markets of Sweden, Switzerland, the Netherlands, and the United Kingdom. The impact of Covid-19 news from the Chinese stock market on the US stock market was minimal.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

5.1 Introduction

This chapter presents an overview of the research's findings, suggestions, and conclusions about the impact of Covid 19 on the volatility of share prices for listed commercial banks in Kenya. Finally, recommendations for additional research are also provided.

5.2 Summary of Findings

The purpose of the study was to determine, using the event study technique over an event period of 2 years (- 1, +1), with an estimating period of 2 years, the impact of the Covid 19 announcement on the volatility of stock share prices of commercial banks listed at the Nairobi Securities Exchange. According to the study, there were negative AR and CAR from the day before the launch of Covid 19. This shows that Covid 19 announcements have a negative impact on stock returns. The study found that the market takes sometime to recover from the effects of Covid 19 announcements, as evidenced by the fact that CAR was still negative a year after Covid 19 date and even up to day +1.

The study also discovered that insider trading is a possibility as evidenced by the sharp decrease in abnormal returns that occurs from the event date to -1, which confirms that the market perceives Covid 19 as a shock and accounts for the high negative cumulative abnormal returns near the event date.

The results resonate with the body of literature already in existence, and they demonstrate that Covid 19 is highly relevant information that caused significant negative abnormal

returns following the announcement. The average CAAR for a 2-year event window is -7.9309%, showing that Covid 19 is associated with poor returns. The findings show that abnormal returns have continued to decrease after a Covid 19 announcement, which is attributable to reduced share price fluctuation in the price of a share when investors respond negatively to news. According to the efficient market theory, all share prices accurately reflect all relevant information.

5.3 Conclusions

The purpose of this study was to determine how the stock prices in Kenya's listed commercial banks respond to the Covid 19 announcement, specifically to determine whether post-announcement drift is present. The study discovered that, in contrast to positive abnormal returns days prior to the announcement, share price volatility is negative after the occurrence.

According to the study's findings, Covid 19 have a detrimental impact on stock returns, as shown by the statistically significant, extremely negative cumulative returns. The extremely negative returns around the announcement date demonstrate that the market interprets Covid 19's releases as bad news on the first, second, third, fourth, and fifth days.

The findings of the study show that Covid 19 significantly affects share returns during the pre- and post-announcement periods as well as on the day of the actual announcement. The event period, which extends from a few days prior to Covid 19 until a few days thereafter, is when the greatest influence is shown. It can be a hint that information leaked ahead of COVID 19 and that the market reacted strongly in these days. Large abnormally favorable returns realized before the event day indicate presence of insider trading. According to the

study's findings, which are consistent with the body of current knowledge, Covid 19 are highly meaningful information events that are followed by significant negative abnormal returns.

5.4 Recommendations

The study suggests that the businesses and governmental organizations involved in the stock market should take all necessary measures to contain the outbreak. This recommendation applies to all stakeholders. If Covid-19 spreads out of control, it can be bad for the economy and the entire security market. Quickly passing laws is necessary to stop this from happening. Considering the detrimental effects of transaction volume, a suggestion is made for a decrease in the amount of stock that is readily available on the market, which would create scarcity and hence raise the volatility of listed commercial banks' shares.

The researcher advises that companies listed on the security markets exercise extreme caution when it comes to exchange rates in order to benefit from the impact they bring because exchange rates are a byproduct of other countries' overall performance and are thus outside the control of stock market stakeholders. According to research, corporations should pay dividends annually because they negatively correlate with stock market performance when they announce payouts. Companies will perform better toward the end of the year because they can only close their books once a year, even if this will be constrained.

5.5 Limitations of the Study

The Covid-19 epidemic has offered a significant challenge to the study's findings, which were undertaken in the setting of Kenya.The study would have to dig into unexplored ground by encroaching on new territory because there was a dearth of information on Covid-19 and commercial banks' performance in the Kenyan market. The results of the study may not be generalizable to other nations due to the fact that different countries responded to the pandemic in different ways, which may limit its relevance to other countries as well.

Additionally, the investigation's time frame was restricted to the first year following the first Covid-19 instance in Kenya's public disclosure. However, it is important to note that the economic impact of the outbreak during the time period examined might not have been particularly significant. Given that the Covid-19 pandemic has not yet recovered and that it might take some time before a vaccine is discovered, long-term research would have been required to monitor the pandemic's development.

5.6 Recommendations for Further Research

The researcher believes that as Covid-19 is now regarded as an ongoing pandemic, future research should concentrate on the virus's long-term effects on the NSE stock market after the outbreak has passed to gauge its overall significance. There were regional variations in how people felt about the Covid-19 pandemic, much like the restriction had reported. Future studies should compare the features of the three different countries to those in other nations that were either entirely ignoring the outbreak or under lockdown in order to look for patterns.

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