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An Analysis of the Derivatives Market Performance in Kenya: A Case of Nairobi Securities Exchange Derivatives Market

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ABSTRACT: The growth of the financial derivatives market has been identified as a significant channel to drive the overall growth of the capital market, and the development of capital market efficiency has been widely regarded as crucial. The performance of derivatives in Kenya has been fluctuating causing uncertainty in the market. The study analyzed the performance of the Nairobi Securities Exchange Derivatives Market in Kenya since its establishment in July 2019. The study draws on secondary data from the Capital Markets Authority and Nairobi Securities Exchange from July 2019 to December 2023. Descriptive statistics was adopted for data analysis with the help of SPSS software. Findings indicated that Safaricom Plc has been active and the best-performing company in trading single futures derivatives contracts at NEXT with the highest total turnover in Kenya shillings. The other companies that followed Safaricom closely were Equity Group Holdings and Kenya Commercial Bank. The overall performance of other companies in terms of derivatives contracts traded over the years has been fluctuating. Overall, the NEXT has made many strides in terms of derivatives trading in Kenya. The securities market regulators need to encourage all listed companies to participate in the Nairobi Securities Exchange Derivatives market to increase options available at the market and improve the Country's economy.

KEYWORDS: Derivatives, Derivatives market, Performance, NEXT, Kenya

1. INTRODUCTION

Derivatives markets began in 1848 with the Chicago Board of Traders, which was designed to bring farmers and businesspersons together. Subsequently, in 1870, the New York Cotton Exchange (NYCE) was established, and in 1874, the Chicago Produce Exchange succeeded it. The Chicago Mercantile Exchange (CME), which was founded in 1919, followed its place in the market. Considered a spin-off of CBOT, CME was the best derivative trading exchange ever. These derivatives markets defined regulations and product standards, which allowed the grain market to function more effectively. It also addressed the issue of credit risk among the trading partners and offered a centralized venue for formal contract negotiations. The traders were able to efficiently hedge against market volatility due to the existence of formal contracts. During the entire period, only forward contracts were exchanged (Pathak, 2011).

Europe now holds a larger proportion of the worldwide outstanding volume in derivatives trades than it does in equities and bonds, accounting for 44% of the market. As a result, Europe is the most significant area in the world today. Deregulation and demutualization in the 1980s and 1990s were necessary for the emergence of robust European derivatives markets. There was less user dependence on these European exchanges. Trading was transformed by the European exchanges, which established industry standards and introduced electronic trading (DBG, 2008). In one form or another, derivatives markets have long existed in India.

The Bombay Cotton Trade Association pioneered futures trading in the commodities market back in 1875. The Indian government outlawed options trading and cash settlement in 1952. Trading in derivatives moved to unofficial futures markets. Government policy has changed in recent years to support more market-based pricing and less dubious derivatives trading. Following the final approval for the reintroduction by the Securities and Exchange Board of India (SEBI), derivatives trading began in India in June 2000. The Indian financial derivatives market has grown significantly since its inception in 2000, in terms of both volume and the quantity of traded contracts (Vashishtha and Kumar, 2010).

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Egypt's futures market in Alexandria is among the oldest globally. In 1865, the first-ever cotton transaction in Alexandria's Café de l'Europe was registered locally. Cotton traders gathered there to make agreements based on supply and demand. As the industry expanded over time, the Alexandria Cotton Exchange was established in 1899. Cotton forward contracts became lawful in 1909. In the 1950s, the Bourse was nationalized and later outlawed following a slew of agrarian reform laws. Periodically, there were new initiatives to bring back the exchange (MFA, 2008).

The usage of derivatives increased significantly in the 1970s as a result of developments in finance theory, particularly after Fischer Black and Myron Scholes' 1973 paper, "The Pricing of Options and Corporate Liabilities," was published (Chance, 1995). Chicago Board Options Exchange was established by CBOT in that same year. In the 1980s, these new instruments were typically used on a variety of new underlying assets, in contrast to the 1970s when numerous new derivative instruments first appeared. Gold futures and sugar options trading started in 1982 (Chance, 1995).

South Africa is leading the way in Africa's debate over the benefits of having a derivatives market, with other sub-Saharan nations weighing in on the expenses of setting up the required infrastructure and regulatory framework. In South Africa, the creation of exchange-traded derivatives began in the late 1980s. Since its unofficial 1987 inception, the South African Futures Exchange (SAFEX) has developed into one of the top emerging markets. With the establishment of the Agricultural Markets Division in 1995, a variety of agricultural futures contracts for commodities such as maize, wheat, and sunflower seeds were introduced. The company began trading on financial futures, including options on futures and gold futures. In 1998, more options for agricultural items were introduced. In September 2010, Mauritius began trading derivatives, and by June 2011, trading turnover had reached a trillion dollars (Olatundun, 2009).

The Nairobi Securities Exchange, originally known as the Nairobi Stock Exchange, was founded in 1954 and became the third exchange to be authorized under the Societies Act. It was a voluntary group of stockbrokers in the European community. The exchange was tasked with fostering the securities industry and overseeing trading operations within British Kenya (NSE 2013). The Nairobi Securities Exchange, which has a derivatives market that was established in 2019, trades in equity index futures and single stock futures (NSE 2021). Other products in the Nairobi Securities Exchange are investment funds, REITs, and ETFs.

The Derivatives Market promotes the trading of Futures contracts as a starting point in the Kenyan market. The increased volatility of asset prices in both domestic and global financial markets, the growing integration of Kenya's financial markets with global markets, and the availability of more advanced risk management tools and strategies all contributed to the market's late 2016 launch. By offering future contracts, particularly equity index futures and single stock futures, the NSE's derivatives market enables businesses to obtain cash for asset value hedging with a predetermined settlement at a future date that is mutually agreed upon. The Clearing House, Clearing Members, Trading Members, and Investors constitute the framework that drives the NEXT component. The clearing members, which include banks and other financial institutions, are in charge of clearing, settling, and keeping an eye on trading members' risks. The Clearinghouse is a fully owned subsidiary of the NSE. Investors open accounts with trading members, who handle the buying and selling of derivative contracts. (NSE, 2022).

1.1 Statement of the problem

The growth of Kenya's financial derivatives markets is essential to the country's capital market expansion and economic progress. Efficient derivatives markets give investors useful instruments for managing risk. By protecting against unfavorable price changes in the underlying assets, investors can control risk using derivatives markets. The Nairobi Securities Exchange Derivatives Market (NEXT) has been characterized by ongoing evolution and the continuous development of new and innovative derivatives products since it went live in July 2019. NEXT experienced growth in the number of deals, trading volume, and total turnover since its commencement. Total turnover grew from 20,734,794 to KES 323,944,600 representing a rise of 1462 percent. The introduction of additional single stock futures in May 2022 at the NEXT was to attract new investors to the market and contribute to increased trading volumes. This was not however the case as trading volume dropped significantly in 2022 and 2023 from 4092 to 2941 respectively, (NSE 2023). This study will add to knowledge by presenting an analysis of the performance of the NEXT since its inception to December 2023.

1.2 The objective of the study

To carry out an analysis of the performance of the Nairobi Securities Exchange Derivatives Market in Kenya.

2. LITERATURE REVIEW

2.1 Trading Quantity Theory

The trading quantity theory was developed by Easley and O'Hara (1987). It considers the size of a trade at a specific price and argues that knowledgeable investors prefer trading large amounts of stock at a particular price. The disadvantage for investors is that market makers, on the other hand, create pricing strategies based on trade size, whereby smaller trades are traded at advantageous prices relative to larger trades. The pricing impact of an asset in the market, or the demand pressure on it, is a key indicator of derivative market performance according to the trading quantity theory. The probability of investors purchasing or disposing of massive quantities of stocks as quickly as possible without a notable shift in market price is explained by demand pressure (Sloman and Kelvin, 2007).

This theory is pertinent to the study because it clarifies the depth of the stock market, which is a dimension of market performance in which trading volume acts as a measure. The number of traded shares at a given moment is known as trading volume and the higher the volume, the less time it takes to trade a given amount of stocks. Trading volume is a favored measure of trading quantity. The turnover ratio, which compares the volume of shares traded to the total number of outstanding shares of that stock, is an extension of this metric. The trading ratio is a better metric than trading volume since it can be used to compare the liquidity of various equities. According to Chordia, Subrahmanyam, and Anshuman (2011), a high turnover ratio is favored since it shows that stocks can be exchanged more quickly with fewer financial consequences and delays caused by lower bid-ask spreads.

2.2 The performance of the derivatives market in Kenya

Derivatives have become more widely used over the past 20 years in both developed and developing countries due to their importance in the growth of effective capital markets. The availability of derivative securities enhances market performance by enticing traders and investors to participate in the market. Investors have more options for investments when using derivatives on underlying stocks, especially when there are limitations on the financial markets, such as short selling. Investors also use derivatives to hedge risk and for price speculation (Sundaram, 2012).

The CMA authorized the NSE to open and run the NEXT Derivatives Exchange Market on July 4, 2019, to enable a more comprehensive and liquid capital market. This decision was made following CMA's Capital Markets Master Plan, which aims to move Kenya closer to becoming the Heart of Capital Markets Investment in Africa. The Nairobi Securities Exchange Derivatives Market (NEXT) provides Single Stock Futures on specific counters that satisfy the eligibility requirements. These include the security underlying the futures contract having to be listed on the NSE, a constituent of the NSE 25 Share Index, with a minimum average daily turnover of KES 7 million and a market capitalization of at least KES 50 billion (NSE, 2019).

Derivative securities known as single stock futures expose investors to changes in the price of the underlying stock. Parties concur to exchange a predetermined quantity of a company's shares for a futures price that is agreed upon today (the NSE 2019). Investors can use single stock futures to speculate and profit from market fluctuations or to safeguard existing stock portfolios (hedging). Single stock futures expose investors to the price movements of individual stocks. Single stock futures offer investors the highest level of capital efficiency and flexibility because they only demand a fair upfront deposit (10% to 20% of the transaction value) and have low trading costs (0.17%). Single futures are available on NEXT for the following companies: East African Breweries Ltd., British American Tobacco Kenya Plc., Absa Bank Kenya Plc., Kenya Commercial Bank Group Plc., Equity Group Holdings, and Safaricom Plc (CMA, 2021). On May 2022, NSE approved additional companies for trading as single stock futures and were available to trade effective 16th May 2022. The new stock futures were NCBA Group Plc (NCBA), The Co-operative Bank of Kenya Ltd (COOP), Standard Chartered Bank Kenya Ltd (SCBK), and I&M Group Plc (IMHP). The latest addition broadens the selection of assets available to investors, giving them access to a larger trading universe for single-stock futures. (NSE, 2022).

The market performance of the NEXT has been growing gradually since its inception in July 2019. The number of deals in the derivatives market increased from 298 in 2019 to 703 in 2020; the number of contracts exchanged increased from 572 in 2019 to 1341 in 2020; and the turnover increased from 20,734,794 million in 2019 to 44,760,015 million in 2020. The fact that derivatives trading in 2019 began in July—a month that did not see the full year of operation of the derivative market as in 2020—was the reason for the increase observed in 2020 in terms of total deals, total volume, and total turnover (CMA, 2020). In comparison with 2020, when overall deals climbed by 324%, total volume by 493%, and total turnover increased to KES 323,944,600 representing a rise of 493 percent, a notable increase in derivative transactions was also seen in 2021 (CMA, 2021). The years 2022 and 2023 saw a drop in the market performance of NEXT in Kenya with a total turnover of KES 125,441,260 and KES 64,280,860 respectively. The Number of total deals and volume trade in 2022 were 1517 and 4092 as compared to 2023, which had total deals and volume of 1091 and 2941 respectively indicating a drop of 28.1% in both total deals and volume (CMA, 2023).

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The performance of derivative transactions, as measured by deals, volume, and turnover, since the derivatives market went live on July 4, 2019, to December 2023 at the NSE, is depicted in Table 1 below;

Table 1: Derivatives market performance- Deals, Volume and Total turnover

Year	The year 2019	The year 2020	Year 2021	Year 2022	Year 2023
Total deals	298	703	2981	1517	1091
Total Volume (No. of contracts traded)	572	1341	7947	4092	2941
Total Turnover (KES)	20,734,794	44,760,015	323,944,600	125,441,260	64,280,860

Source: CMA

3. METHODOLOGY

This study used a descriptive research design to guide the collection and analysis of data. The study draws on secondary data constituting the number of deals, trading volume, and turnover from the Capital Markets Authority and Nairobi Securities Exchange from July 2019 to December 2023. Data was collected for 10 listed stocks that participated in the Nairobi Securities Exchange Derivatives Market (NEXT) trading whose stock futures were traded from 4th July 2019 to 31st December 2023.

The summary of the NSE-listed companies participating in derivatives trading is illustrated in the table below;

Table 2: NSE-listed companies participating in derivatives trading

S/No.	Company	The first date listed on NEXT and available to trade	First date of actual trading on NEXT
1	British American Tobacco	4th July 2019	11th July 2019
2	Equity Group Holdings	4th July 2019	5th July 2019
3	East Africa Breweries Ltd	4th July 2019	4th July 2019
4	Kenya Commercial Bank	4th July 2019	8th July 2019
5	Safaricom Plc	4th July 2019	4th July 2019
6	Absa Kenya	20th December 2019	7th January 2020
7	NCBA Group Plc	13th May 2022	16th May 2022
8	Co-operative Bank of Kenya Ltd	13th May 2022	16th May 2022
9	Standard Chartered Bank Kenya Ltd	13th May 2022	16th May 2022
10	I&M Group Plc	13th May 2022	16th May 2022

Source: NEXT 2023

4. RESULTS AND FINDINGS

Figure 1 to 4 below provides a summary of the performance of derivatives contracts traded at NSE in terms of total turnover since its inception in July 2019 to December 2023. In 2019 there were five active trading companies namely, British American Tobacco Kenya, East Africa Breweries Ltd, Equity Group Holdings, and Kenya Commercial Bank as illustrated in Figure 1. In 2020 and 2021, there were six trading companies, Absa Kenya being the additional trading company as exhibited in Figure 2 and Figure 3 respectively. In the years 2022 and 2023, ten companies traded in derivatives contracts at NEXT. The new companies that joined the six companies that had previously traded were NCBA Group Plc, Cooperative Bank of Kenya Ltd, Standard Chartered Bank Kenya Ltd, and I &M Bank Group Plc. In all the years Safaricom Plc has been active and the best-performing company in trading single futures derivatives contracts at NEXT with the highest total turnover in Kenya shillings. The other companies that trailed Safaricom closely are Equity Group Holdings and Kenya Commercial Bank. The overall performance of other companies in terms of derivatives contracts traded over the years has been fluctuating.

Generally, the NEXT has made many strides in terms of derivatives trading as illustrated by Figure 6. Figure 6 summarizes the monthly performance of the derivatives contracts traded at NEXT from 2019 to 2023. Findings pointed out that the derivatives contracts traded grew steadily from July 2019 to June 2021 with a total turnover growth of KES 4,636,174 to KES 50,775,450. It is observed in Figure 6 that the NEXT experienced volatility from July 2021 to December 2023 as illustrated by the monthly oscillations of total turnover traded.

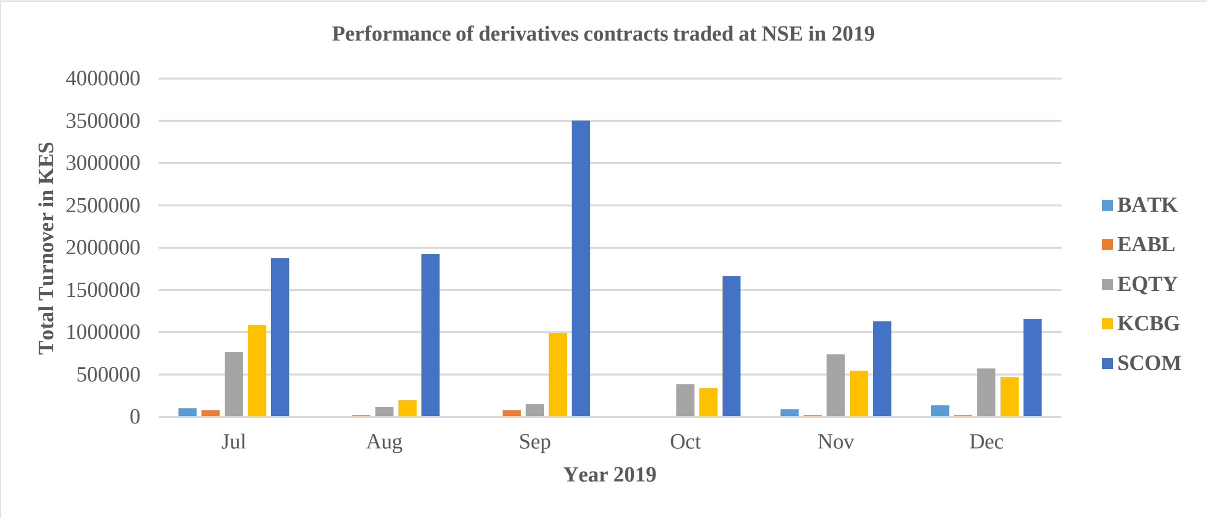

Figure 1: Performance of derivatives contracts traded at NSE in 2019

Source: CMA Data

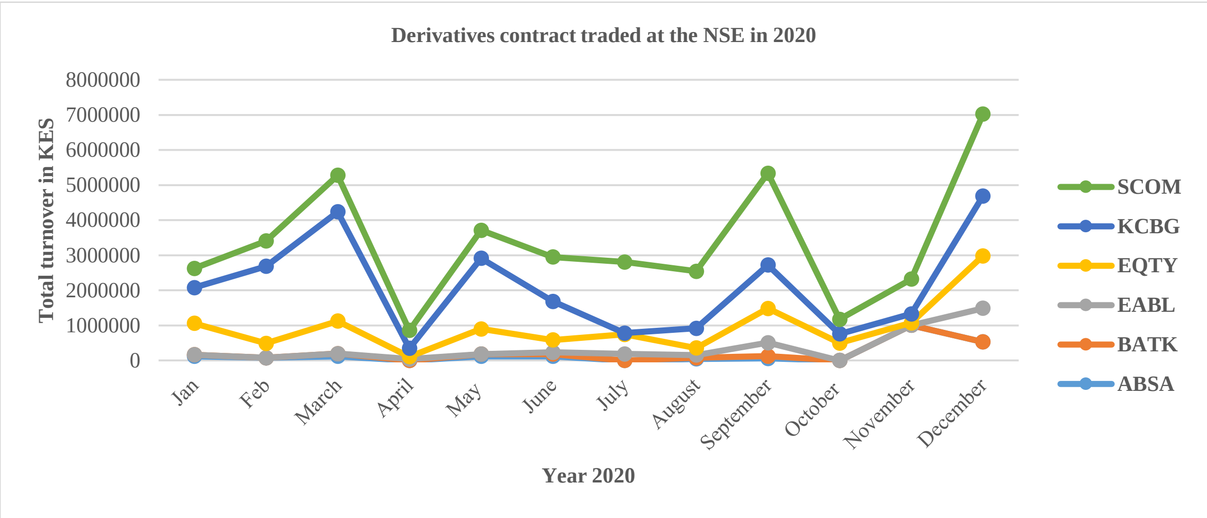

Figure 2: Performance of derivatives contracts traded at NSE in 2020

Source: CMA Data

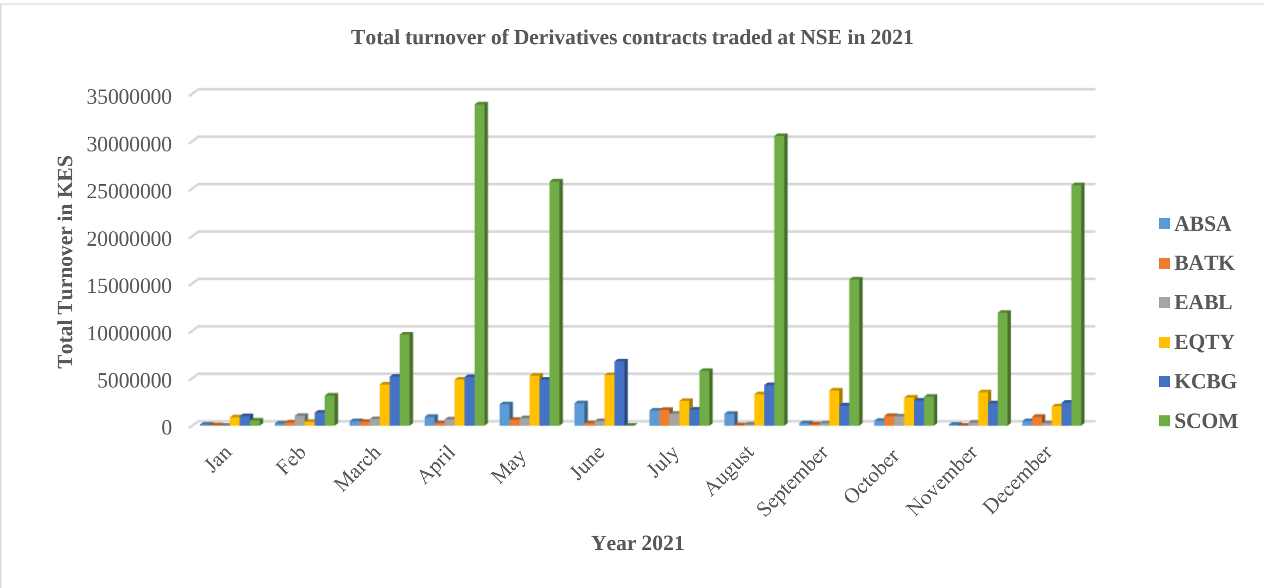

Figure 3: Performance of derivatives contracts traded at NSE in 2021

Source: CMA Data

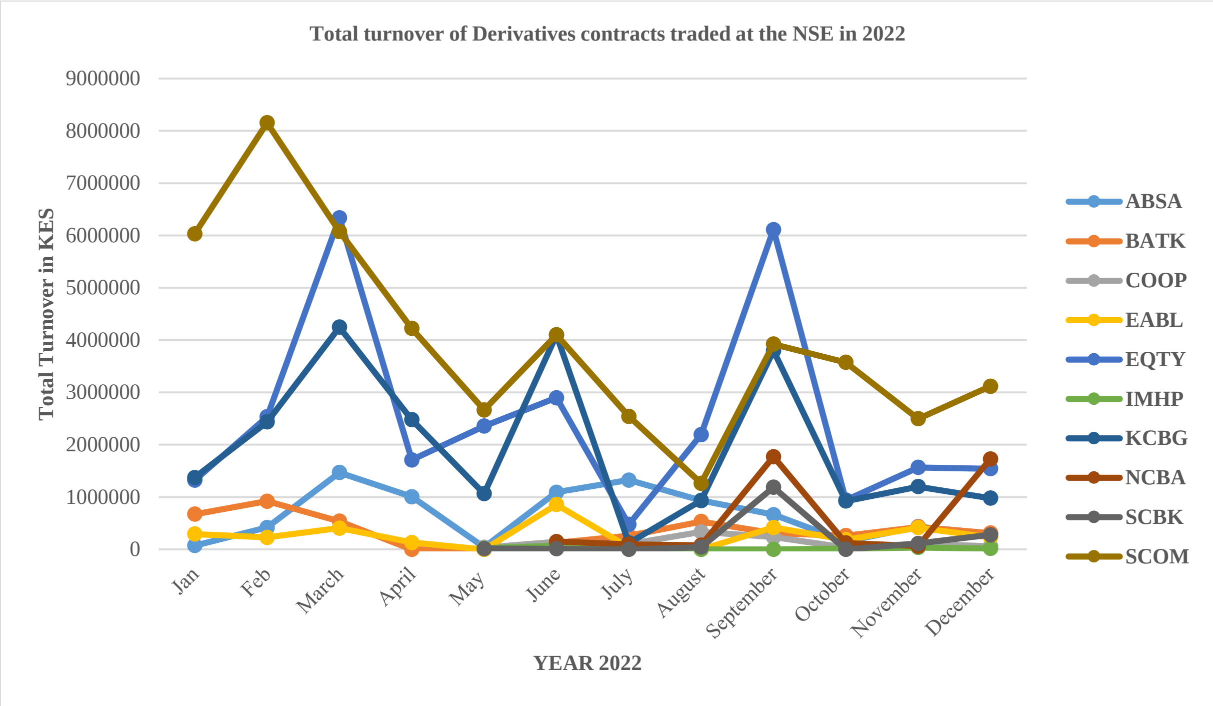

Figure 4: Performance of derivatives contracts traded at NSE in 2022

Source: CMA Data

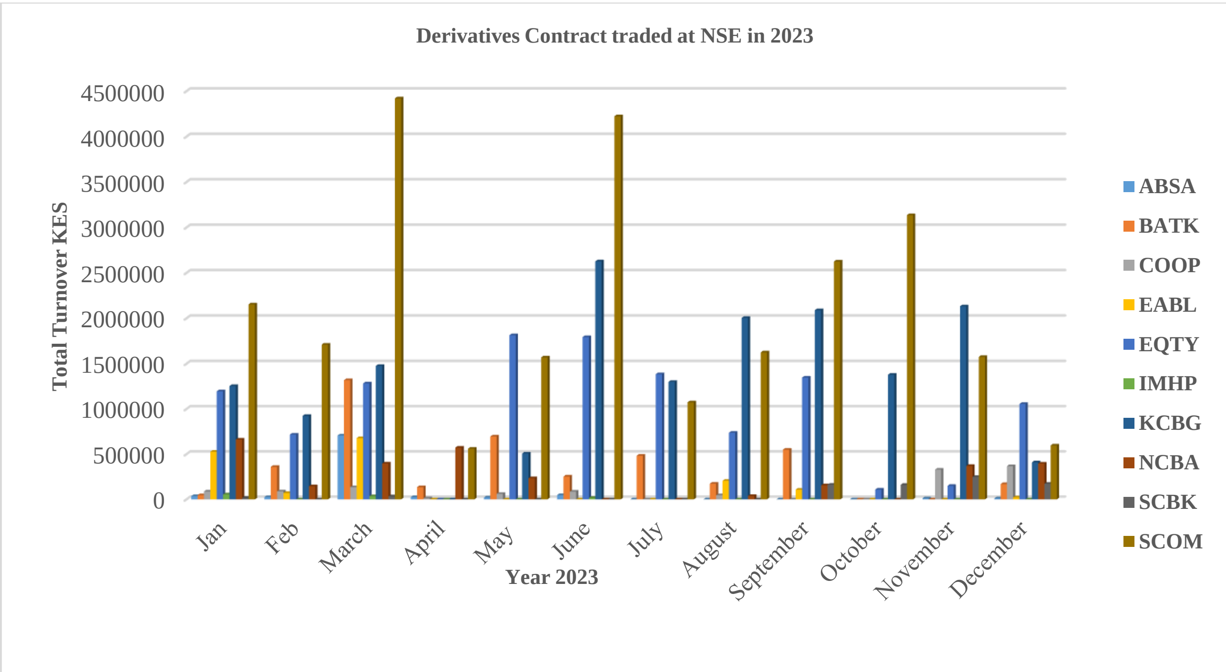

Figure 5: Performance of derivatives contracts traded at NSE in 2023

Source: CMA Data

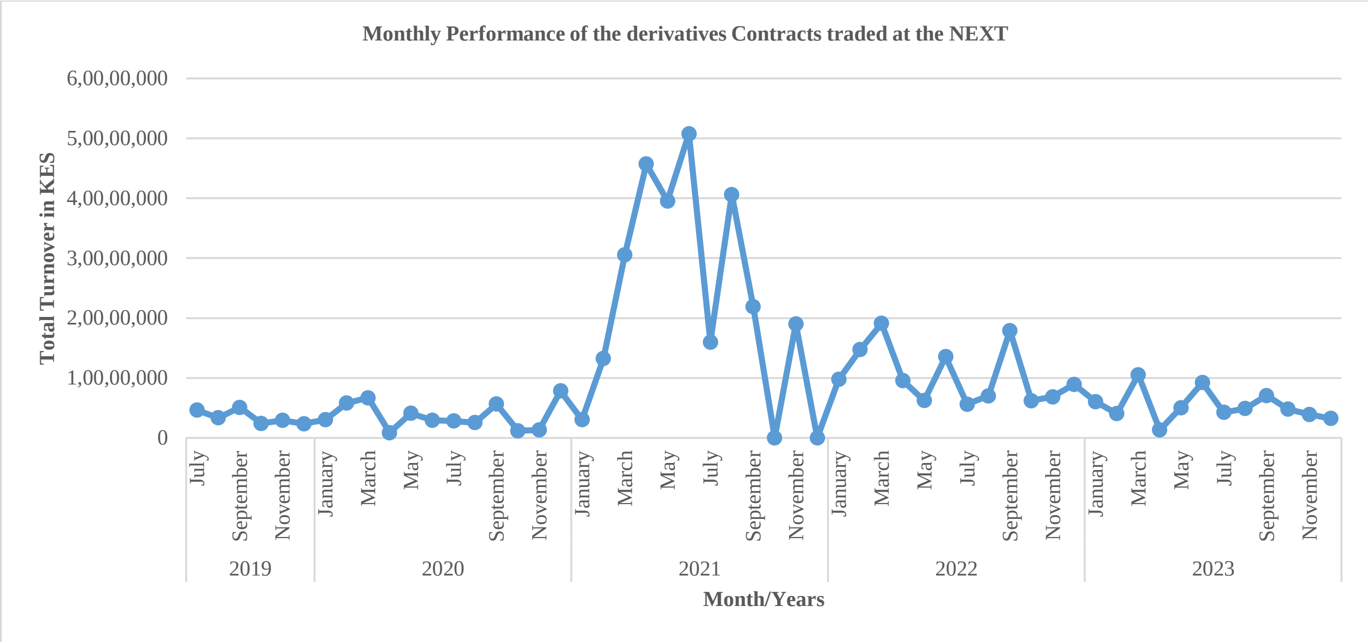

Figure 6: General monthly performance of the derivatives contracts traded at the NEXT

Source: CMA Data

5. CONCLUSION

This research carried out an analysis of the performance of the Nairobi Securities Exchange Derivatives Market in Kenya since its establishment in July 2019. The study used available data from ten listed companies whose futures have been trading at the NEXT since it started operations in July 2019. Comparatively, from July 2019 to December 2023, Safaricom Plc has been active and the best-performing company in trading single futures derivatives contracts at NEXT with the highest total turnover in Kenya shillings. The other companies that followed Safaricom closely are Equity Group Holdings and Kenya Commercial Bank. The overall performance of British American Tobacco, East Africa Breweries Ltd, Absa Kenya, NCBA Group Plc, Co-operative Bank of Kenya Ltd, Standard Chartered Bank Kenya Ltd, and I&M Group Plc in terms of derivatives contracts traded over the years has been fluctuating.

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