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The Effect of COVID - 19 on Dividend Policy of Firms Listed at the Nairobi Securities Exchange, Kenya

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Abstract

Covid-19 pandemic hit Kenya on 12th March 2020 and thereby destabilizing the normal functions of the financial markets. The purpose of this study was to establish the impact of the pandemic on dividend policy of firms listed at the Nairobi Securities Exchange (NSE). The population of the study comprised of all firms which were listed at the NSE for a 4 year period: 2 years (2018 and 2019) represented the before Covid - 19 period while 2020 and 2021 represented the Covid-19 period. Paired samples t test was used to establish whether there were significant differences in dividend policy between the periods – before Covid-19 period and during Covid – 19 period. In terms of findings, the overall picture on the impact of Covid-19 on the dividend policy among listed companies at the NSE, there was a decrease in the mean dividends during the Covid-19 period. Also 36% of the companies did not pay dividends. The paired samples T test showed that the significance level was more than 5%. In terms of segments, 43% of them reported a decrease and the majority reported an increase (57%). The study recommends that companies should endeavour to stimulate activities at the stock markets by increasing dividends so that they can signal positive prospects to the investors. Investors are also advised not to shy off from the stock markets during major shocks such as pandemics as the effect on dividends is positive as evidenced by majority of the segments.

Keywords: *Covid-19, Dividend policy, signaling effect*

Introduction

The social and economic impact of Covid-19 is evident globally even though it cannot be quantified. Major shocks such as pandemics spark unusual changes in the financial markets which by extension may affect the dividend policy. This is because the pandemics may cause fear and anxiety among investors due to uncertainties about the future of their investments. Hung et al (2021) opined that investors normally shy away from volatile economic environment brought about by infectious and diseases like Covid-19 leading to decline in stock prices. This ultimately has far reaching consequences on the performance of a company and its dividend policy thereof. The impact of covid-19 not only paralyzed the business activities but also changed their mode of operations. .While majority of countries showed a negative impact of Covid-19 on stock performance, a few experienced a positive impact yet some showed no relationship at all (Hamal & Gautam, 2021).

Kenya equally suffered the impact of covid19.The scourge slowed down business activities and Nairobi Securities Exchange being the market for financial instruments in Kenya was no exception. The covid-19

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pandemic which was reported on 12th March 2020, led to high level of risks and brought uncertainty on the future of firms listed at NSE (CMA, 2020). The market was bearish and low activity was evidenced. The existing literature has limited content on the effect of Covid-19 on the dividend policy of firms listed at the NSE, Kenya. This study seeks to explore this area so as to establish how the pandemic affected the dividend policy and what lessons can be learned in case of any future pandemics. The following hypothesis was tested:

H0: $\mu 1 = \mu 2$ (dividend policy before and during Covid-19 are equal)

H1 (two-tailed): $\mu 1 \neq \mu 2$ (dividend policy before and during Covid-19 are not equal)

Literature Review

Literature on dividend policy after COVID -19 is minimal. The few studies that have been done have evidenced a positive and also negative impact of COVID -19 on dividend policy. The reviewed studies are discussed below.

Heba (2022) examined the effect of COVID-19 pandemic on corporate dividend policy. A sample of 8889 firms listed in the G-12 countries were considered. The findings showed that although the proportion of dividend cuts and omissions was significantly higher during the pandemic, the majority of firms could either maintain or increase dividends. By doing so, firms might aim to purse more stable dividend policies and signal their financial prospects during the crisis, as posited by dividend signaling theory. Also firm profitability, earnings prospects, size and leverage were important determinants of dividend policy decisions during the pandemic.

Hartono and Raya (2022) studied the impact of the COVID-19 crisis on the dividend policy of Indonesia's manufacturing companies and the stock market reaction to this corporate action in 2020. The findings showed that Indonesia's manufacturing companies formulated a positive dividend policy during the COVID-19 pandemic. The stock market reaction to this corporate action was weak, meaning it became sluggish during a crisis. These results indicated that the effort to signal the market positively was ineffective. Therefore, companies must formulate corporate actions or other managerial policies to reduce capital market sluggishness in crisis.

Krieger, Mauck and Pruitt (2021) investigated the impact of the COVID-19 pandemic on the dividend payouts of publicly traded firms in the U.S. Out of nearly 1,400 dividend paying firms, 213 cut dividends and 93 omitted dividends entirely in the second quarter of 2020. This proportion of cuts and omissions is three to five times higher than any other quarter since 2015. There was also evidence of increased dividend cuts across all industries. Regression results indicated that net income and debt were determinants of firms cutting dividends in all periods, but the economic significance was much greater during the pandemic.

Tinungki, Robiyanto and Powell (2022) examined the effect of the crisis due to the COVID-19 pandemic on dividend policy in Indonesia. Corporate firms tend to distribute dividends that are even higher compared to the previous year to maintain a positive signal to stock market. Profitability, age, and financial leverage have a positive effect on dividend policy, while firm size has an adverse effect on dividend policy. Therefore, dividend policy can be considered as a positive signal to investors with the ability to stock trading activities in the capital market.

Franc-Dąbrowska, Mądra-Sawicka and Ulrichs (2020) conducted a study on the determinants of dividend payout decisions among 15 countries for a duration of 14 years. The findings showed that a company's financial situation in preceding year influences the dividend payout decision. Additionally, free cash flow, growth, liquidity, profitability and size influenced dividend policy.

Mieszeko, Man and Thi (2020) examined dividend payment behavior of the S&P1500 firms during the COVID-19 crisis. The findings showed that the great majority of firms either maintain or increase the level of dividend payment during the crisis period. Additionally, the forecast earnings of up to one year in the future were negatively associated with the current dividend level implying that the existing payout policies are unsustainable.

Research Methodology

The objective of the study was to determine the impact of Covid-19 on the dividend policy of companies listed at the Nairobi securities Exchange. The population of the study comprised of all firms which were listed at the NSE for a 4 year period: 2 years (2018 and 2019) represented the before Covid- 19 period while 2020 and 2021 represented the Covid-19 period. Data was collected on the dividends paid out by the firms for the four-year period from the annual financial statements.

An average of the 2 –year dividends paid out for the 'before Covid-19' was determined. Also the average of the 2-year 'during Covid-19' was computed. Data was analyzed using SPSS. Paired samples *t* test was used to establish whether there were significant differences in dividend policy between the periods – before Covid-19 period and during Covid – 19 period. . The following hypothesis was tested:

H₀: $\mu_1 = \mu_2$ *(dividend policy before and during Covid-19 are equal)*

H₁ : $\mu_1 \neq \mu_2$ *(dividend policy before and during Covid-19 are not equal)*

Findings and Discussions

The data was analyzed using descriptive statistics and Paired samples t test. The analysis was done in two levels. In the first level, all the companies listed at the NSE during the study period were analyzed together to ascertain the overall picture of the effect of Covid-19 on the dividend policy. In the second level, the major segments/sectors were analyzed to determine how they were individually affected.

To determine the impact of Covid-19 on dividend policy, 2 years (2018 & 2019) before Covid -19 and 2 years during Covid-19 (2020 & 2021) were considered. The number of companies listed that were active in 2018 and 2019 (before COVID-19) averaged 64. The companies, which paid dividends, were 41.This means that 64 % of the companies paid dividends. The mean dividend was 5.2554. The mode was 0.75 (75 cents) and the median was 1.2. This is shown in table one below.

Table 1: Descriptive Statistics before Covid-19

Statistics		
DIVIDEND POLICY BEFORE COVID -19		
N	Valid	41
	Missing	3
Mean		5.2554
Median		1.2000
Mode		.75
Std. Deviation		8.90166

In the year 2020 and 2021 (Covid period), 65 companies were listed and 44 companies (67.7%) of the companies paid dividend. As depicted in Table two below, the mean dividend was 4.9225.This is lower than the mean dividend for 2018 and 2019 (Pre-Covid period) which was 5.2554. The mode was zero and

25% (11 companies) of the companies paid zero dividends. This is lower than the mode for pre-covid-19 period, which was 0.75. The median was 1.27.

Table 2: Descriptive Statistics before Covid-19

Statistics		
DIVIDEND POLICY DURING COVID-19		
N	Valid	44
	Missing	0
Mean		4.9225
Median		1.2700
Mode		.00
Std. Deviation		9.54366

Paired Sample T test

To determine the impact of Covid-19 on dividend policy, Paired samples *t* test was used to test if the difference in policy between the two periods (before and during Covid-19) was significant.

The following hypothesis was tested:

H₀: $\mu_1 = \mu_2$ *(dividend policies before and during Covid-19 are equal)*

H₁: $\mu_1 \neq \mu_2$ *(dividend policies before and during Covid-19 are not equal)*

The results in table three below showed that the significance level was 0.980, which is more than 0.05. This implies that there was no significant difference in dividend policy between the two periods: before Covid-19 and during Covid-19. As such, the study failed to reject the null hypothesis and therefore the dividend policies in the two period (before and during Covid-19) are not significantly different. This is depicted below.

Table 3: Paired Sample T-test for all the companies

			95% Confidence Interval of the Difference				
Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig.(2-tailed)
-.01390	3.44363	.53780			-0.026	40	0.980

Segment and Sector Analysis

NSE has 11 segments for its listed firms. The descriptive statistics of the seven sampled segments is provided below.

Agricultural Sector

The agricultural sector had 7 listed firms. One company did not pay dividend before Covid-19. Three companies did not pay dividends in the year 2020 while one company did not pay dividend in the year 2021. Table four shows that the mean of the dividend was 9.1667 for the pre-Covid-19 period. The maximum value of dividends was sh. 20 and the minimum value was sh. 1.

Table 4: Descriptive Statistics before Covid-19 for the Agricultural sector

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
AGRIC DIV POLICY BEFORE Covid-19	6	1.00	20.00	9.1667	7.25029
Valid N (list wise)	6				

During the Covid-19 period, the mean of the dividends was sh. 9, the maximum value was sh.20 and the minimum value was zero. The results from the mean shows that the was a decline in the amount of dividends and also the minimum value being zero evidences an adverse effect of the dividend policy during the Covid-19 period. The results are in Table five below.

Table 5: Descriptive Statistics during Covid-19 for the Agricultural sector

	N	Minimum	Maximum	Mean	Std. Deviation
AGRIC DIV POLICY DURING Covid-19	6	.00	20.00	9.0000	7.79744
Valid N (listwise)	6				

Paired Sample T test

The impact of Covid-19 on the agricultural sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H_0: *$\mu_1 = \mu_2$ (dividend policies in the agricultural sector before and during Covid-19 are equal)*

H_1: *$\mu_1 \neq \mu_2$ (dividend policies in the agricultural sector before and during Covid-19 are not equal)*

As shown in table six below, the significance level was 0.042, which is below 0.05. As such, the null hypothesis was rejected and therefore the difference in dividend policy before Covid-19 and during Covid-19 was significant.

Table 6: Paired Sample T test for the agricultural sector

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	AGRIC DIV POLICY BEFORE Covid-19 & AGRIC DIV POLICY DURING Covid-19	6	.828	.042

Banking Segment

The segment had 13 listed banks during the period of the study. 2 banks did not declare dividends before Covid-19. Similarly, 7 banks and 3 banks in the year 2020 and 2021 respectively failed to pay dividends. Table seven below shows that the mean dividends were sh. 4.90 in the banking sector before Covid-19. The minimum dividends were sh.1 and the maximum value was sh. 16 as depicted below.

Table 7: Descriptive Statistics before Covid-19 for the banking sector

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
BANKING DIV POLICY BEFORE Covid-19	10	1.00	16.00	4.9000	5.36346
Valid N (list wise)	10				

During Covid-19, the mean dividends were sh. 3.46, maximum value sh. 15 and the minimum value was zero (Table 3.8). This implies that there was a reduction in the mean dividends during the Covid-19 from sh.4.90 to sh. 3.46. The minimum dividends declined from sh.1 to zero. Similarly, the maximum value reduced from sh. 16 to sh. 15. This portrays a negative effect of Covid-19 on the dividend policy of the banking sector. This is depicted in Table 8 below.

Table 8: Descriptive Statistics during Covid-19 for the banking sector

	N	Minimum	Maximum	Mean	Std. Deviation
BANKING DIV POLICY DURING Covi-19	13	.00	15.00	3.4615	5.15777
Valid N (listwise)	13				

Paired Sample T test

The impact of Covid-19 on the banking sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H_0: *$\mu_1 = \mu_2$ (dividend policy in the banking sector before and during Covid-19 are equal)*

H_1: *$\mu_1 \neq \mu_2$ (dividend policy in the banking sector before and during Covid-19 are not equal)*

Table nine below shows that the p-value is below 0.05. As such, the null hypothesis is rejected. This implies that the difference in dividend policy before Covid-19 and during Covid-19 is significant for the banking sector.

Table 9: Paired Sample T test for the Banking sector

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	BANKING DIV POLICY BEFORE Covid-19 & BANKING DIV POLICY DURING Covid-19	10	.985	.000

Commercial and Services

There were 11 companies listed during the period of the study. During the before Covid-19 period, only 2 (18%) companies in this segment paid dividends. During the Covd-19 period, only 1 (9%) company dividend. The mean dividend before and during Covid-19 was 0.45 and 0.4545 respectively as shown in Table ten below.

Table 10: Descriptive statistics for the Commercial and Services sector

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	COMMERCIAL & SERVICES BEFORE Covid-19	.45	11	1.036	.312
	COMMERCIAL & SERVICES DURING THE Covid-19 PERIOD	.4545	11	1.21356	.36590

Paired Sample Statistics

The impact of Covid-19 on the commercial & services sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H₀: $\mu_1 = \mu_2$ *(dividend policy in the commercial & services sector before and during Covid-19 are equal)*

H₁: $\mu_1 \neq \mu_2$ *(dividend policy in the commercial & services before and during Covid-19 are not equal)*

Table eleven shows that the p-value is 0.018 which is below 0.05. The null hypothesis is rejected, this implies that the difference in dividend policy before Covid-19 and during Covod-19 is significant in the commercial & services sector.

Table 11: Paired Samples T- test for the Commercial & Services Sector

		N	Correlation	Sig.
Pair 1	COMMERCIAL & SERVICES BEFORE Covid-19 & COMMERCIAL & SERVICES DURING THE Covid-19 PERIOD	11	.694	.018

Construction and Allied

There were 5 companies listed in this segment during the period of the study. Two companies paid dividends in the 2 periods (before Covid-19 and during Covid-19 period). This represents 40% of the listed companies in this segment. The mean of the dividends before and during Covid-19 period was 0.588 and 0.63 respectively. This evidenced an increase during the Covid-19 period. This is shown in table twelve below.

Table 12: Descriptive Statistics for the Construction & Allied Sector

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CONSTRUCTION & ALLIED BEFORE Covid-19 PERIOD	.66	5	1.315	.588
	CONSTRUCTION & ALLIED DURING Covid-19 PERIOD	1.0000	5	1.41421	.63246

Paired Sample Statistics

The impact of Covid-19 on the construction & Allied sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H_0: *$\mu_1 = \mu_2$ (dividend policy in the construction & Allied sector before and during Covid-19 are equal)*

H_1: *$\mu_1 \neq \mu_2$ (dividend policy in the construction & Allied sector during Covid-19 are not equal)*

Table thirteen below shows that the p-value is 0.070 which is above 0.05. As such, the study failed to reject the null hypothesis and therefore the dividend policies in the two period (before and during Covid-19) are not significantly different in the construction and allied sector.

Table 13: Paired Sample T-test for the Construction & Allied sector

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	CONSTRUCTION & ALLIED BEFORE Covid-19 PERIOD & CONSTRUCTION & ALLIED DURING Covid-19 PERIOD	5	.847	.070

Energy and Petroleum Sector

There were 4 listed companies in this segment during the study period. 3 companies paid dividends in the two periods of study. The mean dividends were 1.05 and 0.98 for the before Covid-19 period and during Covid-19 period respectively. This depicts a reduction of 6.7% as shown in table fourteen below.

Table 14: Descriptive Statistics for the Energy and Petroleum sector

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ENERGY & PETROLEUM BEFORE Covid-19 PERIOD	1.0467	3	.62947	.36343
	ENERGY & PETRELEUM DURING Covid-19 PERIOD	.9833	3	.60285	.34806

Paired Sample Statistics

The impact of Covid-19 on the energy & petroleum sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H_0: *$\mu_1 = \mu_2$ (dividend policy in the energy & petroleum sector before and during Covid-19 is equal)*

H_1: *$\mu_1 \neq \mu_2$ (dividend policy in the energy & petroleum sector during Covid-19 is not equal)*

Table fifteen below shows that p-value was 0.670 which is more than 0.05. Therefore the there was no significant difference in dividend policy between the two periods; before Covid-19 and during Covid-19. As such, the study failed to reject the null hypothesis and therefore the dividend policies in the two period (before and during Covid-19) are not significantly different in the energy & petroleum sector.

Table 15: Paired Sample T- test for the Energy and Petroleum sector

		Paired Differences					t	df	Sig. (2-tailed)
		E & P	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Sector	.06333	.22189	.12811	-.48786	.61453	.494	2	.670

Insurance Sector

There were 6 companies listed at the Nairobi Securities Exchange during the period of the study. Four firms paid dividends before Covid-19 and only 2 firms paid during Covid-19 period. The mean dividends were 2.37 before Covid-19 and 3.0375 during Covid-19. This depicts an increase as shown in Table sixteen below.

Table 16: Descriptive Statistics for the Insurance sector

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	INSURANCE BEFORE Covid-19	2.3700	4	4.42088	2.21044
	INSURANCE SECTOR DURING Covid-19	3.0375	4	5.97542	2.98771

Paired Sample Statistics

The impact of Covid-19 on the insurance sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H_0: *$\mu_1 = \mu_2$ (dividend policy in the insurance sector before and during Covid-19 are equal)*

H_1: *$\mu_1 \neq \mu_2$ (dividend policy in the insurance sector before and during Covid-19 are not equal)*

Table seventeen below shows that p-value was 0.454 which is more than 0.05. Therefore there was no significant difference in dividend policy between the two periods; before Covid-19 and during Covid-19. As such, the study failed to reject the null hypothesis and therefore the dividend policies in the two periods (before and during Covid-19) are not significantly different in the insurance sector.

Table 17: Paired Sample T- test for the Insurance sector

		Paired Differences					t	df	Sig. (2-tailed)	+
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper				
Pair 1	INSURANCE BEFORE Covid-19 - INSURANCE SECTOR DURING Covid-19	-.66750	1.55526	.77763	-3.14226	1.80726	-.858	3	.454	+

Manufacturing and Allied

There were 6 companies listed at the Nairobi Securities Exchange during the period of the study. Four firms paid dividends before Covid-19 and only 2 firms paid during Covid-19 period. The mean dividends were 9.54 before Covid-19 and 11.25 during Covid-19. This shows that there was an increase in dividends during Covid-19 period. This is depicted in table eighteen below.

Table 18: Descriptive Statistics for the Manufacturing and Allied sector

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MANUFACTURING AND ALLIED BEFORE Covid -19	9.5400	5	13.98599	6.25473
	MANUFACTURING AND ALLIED DURING Covid -19	11.2450	5	21.30487	9.52783

Paired Sample Statistics

The impact of Covid-19 on the manufacturing & allied sector was determined using the Paired samples t test. The hypothesis tested was as follows:

H₀: *$\mu_1 = \mu_2$ (dividend policy in the manufacturing & allied sector before and during Covid-19 are equal)*

H₁: *$\mu_1 \neq \mu_2$ (dividend policy in the manufacturing & allied sector before and during Covid-19 are not equal)*

Table nineteen shows that the p-value is 0.003 which is below 0.05. The null hypothesis is rejected, this implies that the difference in dividend policy before Covid-19 and during Covid-19 is significant in the manufacturing & allied sector.

Table 19: Paired Sample T- test for the Insurance sector

		N	Correlation	Sig.
Pair 1	MANUFACTURING AND ALLIED BEFORE Covid -19 & MANUFACTURING AND ALLIED DURING Covid -19	5	.980	.003

Conclusions and Recommendations

The overall picture on the impact of Covid-19 on the dividend policy among listed companies at the NSE, showed that there was a decrease in the mean dividends during the Covid-19 period. Also 36% of the companies did not pay dividends. The paired samples t test showed that the significance level was more than 5%. This implies that the difference in dividend policy between the before Covid-19 period and during Covid-19 were not significantly different. Similar findings were obtained by Krieger, Mauck and Pruitt (2021) in a study involving publicly traded firms in the U.S.

In terms of segment analysis, 7 out of the 11 segments were considered for the study because the remaining 4 had just one company listed. Of the 7 companies, 4 companies reported an increase in dividend during the Covid-19 period while the remaining 3 reported a decrease. The decrease was evidenced in the following segments: agricultural, banking, energy and petroleum. The paired samples t test showed that the decrease was significant in the agricultural segment and banking segment. However, it was insignificant in the energy and Petroleum segment. The findings support the results obtained when analyzing all the companies listed at the NSE.

Contrary results were obtained in four segments: Commercial & services, construction & Allied, Insurance and manufacturing & allied. In these segments, an increase in dividends during the Covid-19 period was evidenced. The increase was significant in the Commercial & Services segment and also manufacturing & allied segment. Similar findings were obtained by Heba (2022), Tinungki, Robiyanto and Powell (2022) and Hartono and Raya (2022). The increase was aimed at reducing capital market sluggishness in crisis through signaling positive prospects.

The study concludes that Covid-19 had an impact on dividend policy, both positively and negatively. The overall picture at the NSE depicted a decrease although it was not significant. In terms of segments, 43% of them reported a decrease and the majority reported an increase (57%). The study recommends that companies should endeavor to stimulate activities at the stock markets by increasing dividends so that they can signal positive prospects to the investors. Investors are also advised not to shy off from the stock markets during major shocks such as pandemics as the effect on dividends is positive as evidenced by majority of the segments.

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