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The Effects of Dividend Policy on Share Prices: Empirical Evidence from the Zimbabwe Stock Exchange

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Abstract: ***This study examined the effects of dividend policy on the share price of a firm. The research was motivated by the fact that firms on the Zimbabwe Stock Exchange (ZSE) are changing their dividend policies to conservative/stringent dividend policies as a result of the unpredictable and turbulent business environment hence the need to determine whether it is still profitable to invest on the stock market. The period covered by the research was 2003 to 2011. The main objective of the study was to determine whether shareholder value is eroded as dividend policies change and also to determine whether it was still profitable to invest on the stock market. The findings showed that i) there is no relationship between dividend policy and share price of a firm ii) there is no relationship between earnings per share and the share price. The study concluded that dividend policy does not affect share price and that shareholder value is maintained even though firms have adopted conservative dividend policies. The study also concluded that it is still profitable to invest on the ZSE as the potential for investors to create wealth remains high.***

Keywords: Dividend Policy, Share Prices, Earnings Per Share, Zimbabwe Stock Exchange, Market Capitalization

1. Introduction

Studies about dividend policy shows that investors attach a lot of importance to dividend decisions because they have a major impact on the share price of a firm as one of the major financial decisions the directors of the firm are required to make. A number of researchers have provided theoretical and empirical insights into dividend decisions. Randy (1979) defined dividends as payments made by firms to their shareholders that represent distributions of the corporate profits to the shareholders as the owners of the firm.

According to Block and Godfrey (1996), in 1993 Chrysler was in the midst of operating losses and a very large cost cutting campaign. Chrysler made an end of year loss of 4.8 billion dollars but still paid a dividend of 120 dollars per share. As can be seen Chryslers future was not bright but the firm did not change its dividend policy. For Chrysler it was important for them to keep a constant dividend when it was tracing its unprofitable years because the market has a negative view of dividend decreases and the consequent drop in the share price. It did not have enough earnings to meet its cash dividend payments on common stock, but continued to pay the dividend.

Studies by Brigham and Gapenski (1995) show that some US firms have never paid cash dividends since their formation on their common stock such as TIE/Communications, Lotus Development, Compaq Computers and Mack Trucks. Some of the reasons advanced for non-payment are that the firm's loan agreement and credit facilities restricted payment of cash dividends. These firms sort to finance their growth with internal generated funds to the greatest extent as possible. Due to the plough back of earnings the stocks were highly priced as shown in the table below. On the other hand Citicorp has paid cash dividends since 1815, manufacturer Hanover since 1852, General Motors since 1915 and Basset furniture since 1935.

Table 1: Profit levels and stock prices of some firms in the USA

Firm	Profit Levels (1994)	Stock Prices
Lotus Development	$231 million	$2 780
TIE/Communication	$90 million	$1 850
Mach Trucks	$2,78 million	$ 2 500
Compaq Computers	$865 million	$ 6 000

Source: Damodaran A (1996) Corporate Finance. Theory and Practice

In Zimbabwe there are 78 firms listed on the ZSE covering different sectors of the economy ranging from commodities, consumer, financial, manufacturing, property and mining sectors. Three counters have been suspended and 75 are trading actively.

Mature well established firms listed on the stock market such as Old Mutual, Barclays Bank Zimbabwe Limited, Meikles Africa Limited and Dairiboard pay high cash dividends and therefore have high payout ratios. Growth oriented firms such as Celsys, Dawn Properties and Pelhams have lower dividend payouts.

A study by Imara Edwards (1998) showed that the average payout ratios for mature and growth oriented firms listed on the ZSE was 48% and 25% respectively. A further study by

Imara Edwards in (2008) showed that the payout ratios for the same categories of firms had drastically decreased from 48% to 19% for mature firms and from 25% to 7% for growth oriented firms as a result of serious economic problems the country has been facing since 1997. Some firms are now currently not even paying any dividends to their shareholders. Falcon Gold and Hwange Colliery Company are some of the firms who have not declared a dividend for the past 5 years. Due to the unpredictable nature of the economy that was characterized by high inflation, high interest rates and negative growth rates, firms in Zimbabwe have been forced to retain most of their earnings to finance their growth and expansion at a lower cost than through the expensive money and capital markets. According to Azhagaiah and Sabari (2008), shareholders wealth is represented by the market price of the firm's shares, which in turn is a function of the firm's investment, financing and dividend decision. Management's primary goal is shareholders wealth maximization, which translates into maximizing the value of the firm as measured by the share price of the firm. Shareholders like cash dividends but they also like the growth in EPS that results from ploughing earnings back into the business. The optimal dividend policy is the one that maximizes the share price of the firm which leads to maximization of shareholders wealth and thereby ensures more rapid economic growth. This research seeks to determine the effect of dividend policy and payout ratio on the share price of the firm and how the changes in the payout ratio affect shareholders value and wealth. It also seeks to determine the relationship between dividend policy and shareholders wealth.

1.1 Background of Study

During the period 1997-2008, Zimbabwe experienced an unstable and unattractive business environment due to the political and economic blockade by the International Donor Agencies. The country experienced high rate of inflation, high rate of unemployment 70-80%, high levels of poverty, massive brain drain, weak local currency and political instability. According to World Development Indicators (2007) the country's growth rate (GDP) declined from +15% in 1980 to -8% in 2007as shown in the graph below.

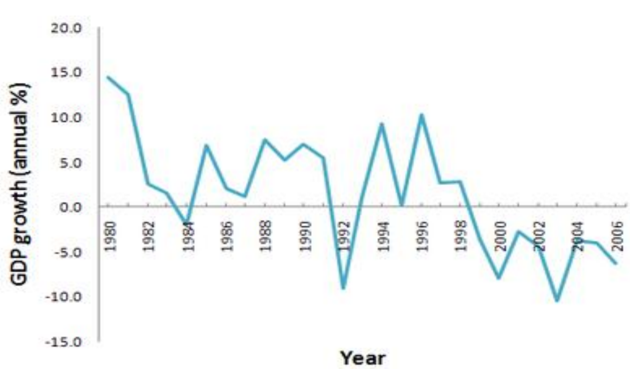

Figure 1: Zimbabwe's GDP annual growth rate from 1980 to 2006**.**

Source: World Development Indicators 2007

Hyperinflation has been a major problem from 2003 to April 2009 when Zimbabwe suspended its own currency. The economy deteriorated from one of Africa's strongest economies to one of the world's worst. Inflation rose from 55, 22% in 2000 to 231 150 888, 87% in 2008 as shown by the table below.

Table 2: Zimbabwe Inflation Figures

Year	Inflation %
2000	55,22
2001	112,10
2002	198,93
2003	598,75
2004	132,75
2005	585,84
2006	1281,11
2007	66 212,30
2008	231 150 888,87

Source: World Development Indicators 2008

The uncertain macro-economic environment resulted in a shrinking economy and hyperinflation and forced many firms to adopt new structural changes to improve on operating efficiencies. Firms like Econet and Dairiboard had to diversify regionally and internationally to hedge against the Zimbabwe economic crisis.

The depressing effect of the economic meltdown resulted in many firms on the ZSE adopting conservative dividend policies. Against this background of unpredictable and turbulent business environment, which resulted in most firms retaining most of the funds as raising on the money and capital markets was very expensive due high prohibitive interest rates. Tedco (now TN Holdings) one of the firms listed on the ZSE, its dividend policy or payout ratio changed progressively due to the economic crisis from 60% in 1993 to 29 % in 2002 as shown below.

Table 3: Ten year review for Tedco Limited (now TN Holdings)

Year	Payout Ratio %	E.P.S (cents)	Dividend Cover	Dividend Yield	Share Price(c)	Number of Shares
1993	60	14	1.7	7	130	56 381 000
1994	59	24	1.9	6	205	56 802 000
1995	49	31	2.0	10	150	56 866 000
1996	39	57	2.6	5	450	56 866 000
1997	39	25	2.5	5	220	251 531 000
1998	40	37	2.5	9	175	253 017 000
1999	37	65	3	8	300	256 407 000
2000	35	88	3	15	210	262 357 000
2001	31	178	3	12	465	261 387 000
2002	29	392	3	4	2700	257 514 000

Source: Tedco Limited Financial Statement 2002

Zimbabwe has during the period 1997-2008 been experienced a down turn in economic activity and employment levels and this in turn affected the macro-economic stability of the country. The resultant economic crisis further created an unpredictable and turbulent operating environment which forced many firms to adopt conservative dividend policies in order to conserve the capital base of the firm in the face of serious and worsening economic crisis in the country during this period. The problem is that investors started wondering if it was still profitable to invest on the ZSE as firms adopted stringent dividend policies and some not even paying dividends.

This research seeks to investigate the effects of dividend policy and payout changes on the share price of the firm and the nature of the relationship that exist between dividend policy and the share price of the firm. This research therefore seeks to determine whether it is profitable to invest on the stock market even though firms are retaining most of their funds and even when some firms are not even paying dividends.

The main objectives of the firm are;

i) To determine the effect of dividend changes policy on the share value of the firm.

ii)To determine the effect of earnings per share (EPS) on the share value of the firm.

The main objectives were reformulated to create the research hypothesis.

a) H_0: there is no relationship between dividend policy and the share price of the firm.

H_1: there is a relationship between dividend policy and the share price of the firm.

b) H_0: there is no relationship between EPS and the share price of a firm.

H_1: there is a relationship between EPS and the share price of a firm.

The study shall enlighten investors and directors whether dividend policy changes have any effect on the share value of the firm and determine whether it is profitable to invest on the stock market as conservative dividend policies are adopted. The period of study is from 2003 to 2011

1.2 Research Models

The are two main categories of dividend theory, the irrelevant theory and the relevant theory.

The Irrelevant Theory

The Irrelevant theory states that changes in dividend policy do not have an effect on the share price. There are two main theories which explain the Irrelevant Theory.

a) Modigliani-Miller Theorem

The Modigliani-Miller Theorem (1961), states that shareholders are indifferent to the division of retained earnings into dividends and new investments. The question regarding the effects of dividend policy on the firm's share price was examined rigorously by Miller and Modigliani in 1961, assuming no difference in the tax rate paid by investors on capital gains or dividends, investor rationality, and perfect capital markets. In a perfect capital market the opportunity for abnormal profits does not exist, that is owners are compensated with normal market return adjusted for risk. If the dividend decision does not affect the share price of the firm and return to investors then dividend decision is irrelevant. The M-M Theorem concludes that dividend policy does not affect share price.

b) Clientele Effect

This refers to the tendency by investors to buy shares in the firms that have dividend policies that meet their preferences for high, low or no dividends. Shareholders in high tax brackets, who do not need cash flow from dividend payment, tend to invest in firms that pay low or no dividends. Shareholders in the low tax brackets, who need cash from dividend payments, and tax-exempt institutions that need current cash flows will usually invest in firms with high dividends. The existence of a clientele effect is supported by empirical evidence. Petit (1977), Black and Scholes (1974) concluded that dividend policy does not have an effect on the share price.

The Relevant Theory

These are theories whose proponents argue that the dividend policy of a firm affects the share price. A number of arguments have been advanced that dividends are relevant under conditions of uncertainty. Capital markets are not perfect therefore the price of the share might not fully reflect the foregone dividend. There are also two main theories that explain the relevant theory.

a) Dividend Preference Theory

Gordon (1959) proposed that the payment of dividends might help resolve uncertainty in the mind of investors. Certain investors in the market have preference for dividends over capital gains and they see dividends as a bird in hand and capital gains as a bird in the bush. The dividends are received on a current ongoing basis , whereas the prospects of capital gains is off in the future , investors in a dividend paying firm resolve their uncertainty earlier than those in a non-paying firm. Investors prefer the early resolution of uncertainty, they will be willing to pay a higher price for the share that offers the greater current dividend thereby maximizing the share prices. The final result is that a high dividend yield will maximize the share price of the firm.

b) Signalling Hypothesis

Stock markets examine every action a firm takes for implications about cash flows and the firm's share price. When firms announce changes in dividend policy they are conveying information to markets. Observations that have been made on the stock exchanges after dividend declarations are that when a i) firm announces an increased dividend the price of the share increases. ii) firm announces a reduced dividend the price of the shares decreases. iii) firm's dividend remains the same the price of the shares usually remains the same. According to Van Horne(1987), dividend policy does have an effect on the share price of a firm.

2. Research Methodology

The sample was limited to 10 firms listed on the ZSE. The researchers selected the sample from the six sectors which are commodities, consumer, financial, manufacturing, property and minings. At least one firm was selected from each sector. The researcher used both the primary and secondary methods of data collection. Primary data was collected through a semi-structured questionnaire. Secondary data was collected from financial journals, company reports and internet, Imara Edwards Bulletins.

2.1 Methods of Data Analysis

The study is about finding the whether there is a relationship between dividend policy and share price.
The three statistical methods that were used to analyze to analyze the relationship between dividend policy and share price are;
a) Pearson s Correlation Coefficient

Correlation Analysis is a statistical tool that was used to describe the degree to which one variable is related to another. It is a measure of the extent to which variables are related or associated. It was used to measures the strength of linear association between dividend policy and the share price. Pearson's Correlation Co-efficient **r** was calculated, and the t-test will be carried out to test for the significant relationship between dividend policy and share price.

b) Linear Regression Analysis
The relationship between dividend policy and the share price was analyzed using linear regression model. This was done using the Analysis of Variance table (ANOVA) since it is a highly useful and flexible model for regression models. It was used to determine the variance and to measure the degree of linear relationship between the variables dividend policy and share price.

c) p – values analysis
In statistical hypothesis testing a p-value (probability value) was used to decide whether there is enough evidence to reject the null hypothesis. The p-value is a numerical measure of the statistical significance of a hypothesis test. By convention, if the p-value is $p < 0.05$ we conclude that the null hypothesis can be rejected. In other words when $p< 0.05$ we say that the results are statistically significant. The p- values were calculated using Minitab and were used to decide whether there is enough evidence to reject the null hypothesis.

2.2 Minitab

The Statistical Package Minitab 14 was used to aid the analysis of the data. The researcher was able to determine whether dividend policy has an effect on the share price of firm. The researcher was able to reach a conclusion.

3. Data Presentation and Analysis

The study investigated the effect of dividend policy on the share price of firms listed on the ZSE which was the main focus of the study. The study determined whether shareholder value is eroded when firms adopt conservative dividend policies, and also determined whether it is still profitable to invest on the money and capital markets.

The ZSE is divided into two sectors that are the Minings and Industrials. The researcher then further divided the firms on the ZSE into six sectors. These are commodities, consumer, financial, manufacturing, property and minings. The commodities sector compromises mainly of agro-processing firms. The consumer sector encompasses mostly supermarkets, clothing and furniture outlets, and retail food and beverage companies. The financial sector incorporates listed banks and insurance firms. The manufacturing sector includes firms that are involved in engineering, construction and value addition. The mining sector firms are mainly engaged in exploration and processing of valuable minerals. The listed property sector houses companies that develop manage and own properties. The researcher then chose 10 firms at least one firm to represent each of the six sectors.

Table 4: Firms from the different sectors in the survey

Firm	Sector
Alco	Commodities
Barclays Bank	Financial
CBZ	Financial
TA	Manufacturing
Innscor	Consumer
Dairiboard	Consumer
Delta	Consumer
Econet	Consumer
Rio Zim	Mining
Dawn Properties	Property

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

The researcher chose 10 firms to represent the six sectors on the ZSE and these formed the basis of data analysis for the study. This sample was considered reasonable, adequate and representative for the study.

3.1 Financial Performance of Firms

Table 5: Performance in terms of turnover in $ million

Firm	2005	2006	2007	2008	2009	2010	2011
Alco	163.8	67.6	47.5	145.0	162.9	193.8	203.5
Barclays	83.8	50.7	23.8	5.5	17.5	32.5	39.0
CBZ	98.0	45.1	74.9	17.2	41.7	81.6	107.6
TA	56.0	37.6	36.9	16.8	41.8	52.2	-
Innscor	211.1	166.4	166.5	228.3	254.8	403.5	504.4
Dairiboard	60.5	39.8	19.9	12.2	43.4	75.2	105.3
Delta	-	188.2	120.0	121.9	104.2	281.3	408.0
Econet	-	31.8	34.6	21.4	87.9	362.8	493.5
Rio Zim	28.9	15.0	6.9	19.5	43.7	61.1	89.0
Dawn	0.82	0.64	0.92	2.06	3.4	3.9	5.7

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 5: Performance in terms of net profit in $ million.

Firm	2005	2006	2007	2008	2009	2010	2011
Alco	4.6	22.5	19.9	46.0	15.3	4.5	7.6
Barclays	34.3	20.2	8.6	12.7	1.5	-1.3	2.9
CBZ	47.1	20.2	46.6	12.0	8.1	17.6	28.1
TA	11.1	12.2	13.1	5.4	10.2	-1.4	-5.4
Innscor	45.2	62.2	17.4	152.7	10.9	21.6	36.1
Dairiboard	13.4	8.1	3.4	2.4	3.1	6.1	8.6
Delta	-	38.7	60.6	112.0	5.4	39.7	54.1
Econet	-	12.3	16.4	46.6	-2.1	113.2	141.0
Rio Zim	0.9	0.2	-0.1	-0.1	8.5	-	-
Dawn	14.8	14.1	16.4	7.7	14.6	-	-

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

The study shows that most of the firms are profitable in terms of turnover and net profit. Barclays Bank, TA and Econet are the only firms that made a loss during the period under study. It appears these firms are performing well under the difficult conditions.

3.2 Share Price and Market Capitalization of Firms for 2011

The market capitalization of all the firms under study is shown in the table below. For all the firms the share prices are always increasing as was deduced from the study hence the market capitalization of the firms is always increasing.

Table 6: Share Price and Market Capitalization of Firms.

Firm	Share Price US c	Market Capitalization US$m
Alco	17.0	90.0
Barclays Bank	6.8	146.4
CBZ	18.4	125.9
TA Holdings	12.0	19.8
Innscor	62.0	335.8
Dairiboard	21.0	72.0
Delta	73.0	861.8
Econet	480.1	786.3
Rio Zim	170.0	50.9
Dawn Properties	1.0	24.6

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

3.3: Dividend Policies Adopted by Firms

Table 7: The types of dividend policy followed by firms.

Firm	No of Respondents	Percentage
Aggressive/Liberal	0	0%
Stringent	9	90%
Others	1	10%

From the study the majority of the firms have adopted stringent dividend policies which is represented by 90% 0f the firms. Dawn Properties have not paid a dividend for the period under the study.

3.4 Considerations Taken into Account when Formulating Dividend Policies

The main considerations that are taken into account when they are setting and formulating dividend policy of the firms from the survey were found to be five;

a) The availability of cash resources / cash flow if a firm does not have an adequate amount of cash from the capital markets then it will not be able to pay a cash dividend.
b) Profitability levels of the firm- a loss making firm usually does not pay a dividend although dividends could be paid from distributable reserves. High stable profits enable the firm to pay a high dividend.
c) Levels of borrowing- gearing of the firm- contractual covenants arising from borrowing might also govern payment of dividends.
d) Economic Fundamentals (e.g. inflation, exchange rate) in a hyper inflationary environment firms adopt conservative dividend policies to maintain their working capital environment.
e) Survival /continuing of operations of the firm hence the need to retain most of the profits.

3.5 Methods of Paying Dividends

The most popular method of paying dividends is the cash dividend. Ninety percent of the firms use the cash method to pay its dividends. Dawn Properties do not pay dividends at all.

Table 8: The most popular mode of paying annual dividends

Firm	No of Respondents	%
Cash Method	9	90
Scrip	0	0
Others	1	10

3.6 Signalling effects of Dividend Declaration

Observations are that all the firms experience a share price increase after declaring a dividend.

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Table 9: Reaction of announcements to dividend declaration firms

Reaction	Firms	%
Share Price Increase	10	100
Share Price Decrease	0	0
Others (Specify)	0	0

3.8 Performance of firms in terms of EPS, DPS, Payout Ratio and Share Price

Table 10: ALCO

	2005	2006	2007	2008	2009	2010	2011
EPS	0.1	5.8	3.7	6.7	1.5	0.8	0.2
DPS	0.0	1.2	0.0	5.1	0.0	0.0	0.0
Payout Ratio	0	0.21	0.0	0.76	0.0	0.0	0.0
Share Price	1.2	2.8	0.5	0.7	6.3	5.6	6.5

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 11: Barclays Bank of Zimbabwe Limited

	2005	2006	2007	2008	2009	2010	2011
EPS	1.6	0.9	0.4	0.1	0.1	0.1	0.1
DPS	0.4	0.2	0	0	0	0	0
Payout Ratio	0.25	0.22	0	0	0	0	0
Share Price	0.9	0.6	0.2	1.2	1.5	1.4	1.6

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 12: CBZ

	2005	2006	2007	2008	2009	2010	2011
EPS	7.2	2.5	1.1	0.3	0.5	2.6	4.1
DPS	1.0	0.2	1.5	0	0	1.0	1.7
Payout Ratio	0.14	0.08	1.36	0	0	0.38	0.41
Share Price	2.5	1.3	2.7	6.7	9.2	12.5	15.6

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 13: Dairiboard Zimbabwe Limited

	2005	2006	2007	2008	2009	2010	2011
EPS	4.2	2.6	1.1	0.8	1.0	1.9	2.7
DPS	0.9	0.4	0.0	0.0	0.0	0.0	0.5
Payout Ratio	0.21	0.15	0.0	0.0	0.0	0.0	0.19
Share Price	1.7	0.9	0.2	0.2	3.8	6.2	7.9

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 14: Delta Corporation

	2006	2007	2008	2009	2010	2011	2012
EPS	2.8	4.5	8.2	0.4	3.3	4.5	5.7
DPS	0.5	0.4	0.4	0.0	0.0	1.5	1.9
Payout Ratio	0.8	0.09	0.05	0.0	0.0	0.33	0.33
Share Price	2.0	0.7	0.8	9.3	13.5	17.6	22.3

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 15: Econet Wireless Zimbabwe

	2006	2007	2008	2009	2010	2011	2012
EPS	7.5	10.0	28.4	1.4	70.0	85.7	99.4
DPS	2.5	3.3	0.8	0.0	23.3	12.4	33.1
Payout Ratio	0.33	0.33	0.03	0.0	0.33	0.14	0.33
Share Price	2.6	1.1	3.1	1.4	45.3	130.4	229.8

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 16: Innscor Africa

	2005	2006	2007	2008	2009	2010	2011
EPS	6.9	9.6	0.7	10.2	1.7	2.9	4.8
DPS	0.8	1.1	1.8	0.0	0.0	0.8	1.4
Payout Ratio	0.12	0.11	2.57	0.0	0.0	0.28	0.29
Share Price	6.2	3.8	3.0	17.8	18.7	21.0	19.6

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 17: Rio Zim

	2005	2006	2007	2008	2009	2010	2011
EPS	37.6	13.9	3.1	51.5	53.8	2.6	3.9
DPS	29.2	4.1	0.0	0.0	0.0	0.0	0.0
Payout Ratio	0.78	0.29	0.0	0.0	0.0	0.0	0.0
Share Price	30.1	10.5	5.7	37.1	157.1	184.2	173.8

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 18: TA Holdings

	2003	2004	2005	2006	2007	2008	2009	2010
EPS	4.7	3.6	5.2	6.1	6.4	3.3	5.0	3.1
DPS	0	0	0.30	0.20	0.20	0.0	0.0	0.0
Payout Ratio	0	0	0.29	0.0	0.0	0.0	0.0	0.0
Share Price	33.3	8.9	10.5	5.7	37.1	157.1	184.2	173.8

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

Table 19: Dawn Properties

	2003	2004	2005	2006	2007	2008	2009	2010
EPS	0.015	0.007	0.005	0.005	0.012	0.014	0.02	0.02
Share Price	2.45	0.68	0.55	2.53	1.18	1.77	1.85	1.85

Source: Imara Edwards, Zimbabwe Stock Exchange Overview – May 2011

3.9 Statistical Analysis of Dividend Policy and Share Price using Minitab

Table 20: The Correlation Coefficient of the Dividend Policy and the Share Price of a Firm.

Firm	Correlation	$t_{calculated}$	$t_{critical}$	Remark
Alco	-0.466	1.33 <	2.57	Insignificant
Barclays Bank	-0.393	0.96 <	2.57	Insignificant
CBZ	-0.116	0.26 <	2.57	Insignificant
TA Holdings	-.0.274	0.64 <	2.57	Insignificant
Innscor	-0.508	1.31 <	2.57	Insignificant
Dairiboard	0.223	0.51 <	2.57	Insignificant
Delta	0.416	1.02 <	2.57	Insignificant
Econet	0.077	0.17 <	2.57	Insignificant
Rio Zim	-0446	1.33 <	2.57	Insignificant

Source: Correlations from Minitab

H_0: there is no relationship between dividend policy and the share price of the firm.
H_1: there is a relationship between dividend policy and the share price of the firm.

The $t_{calculated}$ values of all the firms under study are less than the $t_{calculated}$ values. Therefore at 5 degrees of freedom at 5% level of significance we accept H_0 and conclude that there is no significant relationship between dividend policy and the share price of the firm .The correlations of all the firms under study are insignificant. It was concluded that dividend policy does not have an effect on the share price if a firm.

Table 21: Summary of the Regression Analysis of the Dividend Policy and the Share Price.

Firm	$F_{calculated}$	$F_{critical}$	Remark
Alco	1.38 <	6.61	Insignificant
Barclays Bank	0.91 <	6.61	Insignificant
CBZ	0.07 <	6.61	Insignificant
TA Holdings	0.56 <	6.61	Insignificant
Innscor	1.06 <	6.61	Insignificant
Dairiboard	0.31 <	6.61	Insignificant
Delta	0.256 <	6.61	Insignificant
Econet	0.41 <	6.61	Insignificant
Rio Zim	1.24 <	6.61	Insignificant

Source: The Anova Tables for a Simple Linear Regression from Minitab.

H_0: $\beta_0 \neq 0$, the slope is not significantly different from zero.
H_1: $\beta_0 = 0$, the slope is significantly different from zero.
The $F_{calculated}$ values of all the firms under study are less than the $F_{calculated}$ values. Therefore at 5 degrees of freedom at 5% level of significance we accept H_0 and conclude that the slope is not significantly different from zero. Therefore there is no significant relationship between dividend policy and the share price of the firm. It was concluded that dividend policy does not have a significant effect on the share price of a firm.

3.10 Statistical Analysis of EPS and Share Price using Minitab

Table 22: Summary of the Correlation Coefficient of the EPS and the Share Price.

Firm	Correlation	$t_{calculated}$	$t_{critical}$	Remark
Alco	-0.571	1.55 <	2.02	Insignificant
Barclays Bank	0.942	6.27 >	2.02	Significant
CBZ	-0.059	0.13 <	2.02	Insignificant
TA Holdings	0.213	0.53 <	2.02	Insignificant
Innscor	-0.127	0.298 <	2.02	Insignificant
Dairiboard	0.181	0.41 <	2.02	Insignificant
Delta	-0.064	0.14 <	2.02	Insignificant
Econet	0.891	4.4 >	2.02	Significant
Rio Zim	0.124	0.27 <	2.02	Insignificant
Dawn Properties	0.386	1.03 <	2.02	Insignificant

Source: Correlations from Minitab
H_0: there is no relationship between EPS and the share price of the firm.
H_1: there is a relationship between EPS and the share price of the firm.

The $t_{calculated}$ values 8 of the firms under study are less than the $t_{calculated}$ values. Therefore at 5 degrees of freedom at 5% level of significance we accept H_0 and generally conclude that there is no significant relationship between earnings per share and the share price of the firm. It was concluded that EPS do not have a significant effect on the share price of a firm.

Table 23: Summary of the Regression Analysis of the EPS and the Share Price.

Firm	$F_{calculated}$	$F_{critical}$	Remark
Alco	2.42 <	6.61	Insignificant
Barclays Bank	39.10 >	6.61	Significant
CBZ	0.02 <	6.61	Insignificant
TA Holdings	0.29 <	6.61	Insignificant
Innscor	0.09 <	6.61	Insignificant
Dairiboard	0.17 <	6.61	Insignificant
Delta	0.02 <	6.61	Insignificant
Econet	19.32 >	6.61	Significant
Rio Zim	0.08 <	6.61	Insignificant
Dawn Properties	0.29 <	6.61	Insignificant

Source: The Anova Tables for a Simple Linear Regression from Minitab.
H_0: $\beta_0 \neq 0$, the slope is not significantly different from zero.
H_1: $\beta_0 = 0$, the slope is significantly different from zero.

The $F_{calculated}$ values of 8 of the firms under study are less than the $F_{calculated}$ values. Therefore at 5 degrees of freedom at 5% level of significance we accept H_0 and generally conclude that the slope is not significantly different from zero. From the above it can generally be concluded that there is no significant relationship between earnings per share and share prices. Therefore EPS do not have a significant effect on the share price of a firm.

3.11 Statistical Data Analysis using the p-value

Table 24: Summary of the p-values of the Dividend Policy and the Share Price.

Firm	*p-value*	*p-critical*	*Remark*
Alco	0.292 >	0.05	Insignificant
Barclays Bank	0.383 >	0.05	Insignificant
CBZ	0.805 >	0.05	Insignificant
TA Holdings	0.482 >	0.05	Insignificant
Innscor	0.350 >	0.05	Insignificant
Dairiboard	0.595 >	0.05	Insignificant
Delta	0.171 >	0.05	Insignificant
Econet	0.551 >	0.05	Insignificant
Rio Zim	0.316 >	0.05	Insignificant

Source: The Anova Tables for a Simple Linear Regression from Minitab.

From the above analysis it can be deduced that the all p-values of all the firms in the sample are greater than 0.05 meaning that there is little or no evidence against the null hypothesis, therefore there is no significant relationship between dividend policy and share price. It is therefore concluded that EPS do not have an effect on the share price of a firm.

Table 25: Summary of the p-values analysis of the EPS and the Share Price.

Firm	p-value	p-critical	Remark
Alco	0.180 >	0.05	Insignificant
Barclays Bank	0.002 <	0.05	Significant
CBZ	0.900 >	0.05	Insignificant
TA Holdings	0.290 >	0.05	Insignificant
Innscor	0.780 >	0.05	Insignificant
Dairiboard	0.698 >	0.05	Insignificant
Delta	0.893 >	0.05	Insignificant
Econet	0.007 <	0.05	Significant
Rio Zim	0.791 >	0.05	Insignificant
Dawn Properties	0.345 >	0.05	Insignificant

Source: The Anova Tables for a Simple Linear Regression from Minitab.

From the above analysis it can be deduced that the all p-values of all the firms except Barclays Bank and Econet in the sample are greater than 0.05 meaning that there is little or no evidence against the null hypothesis, there is no significant relationship between EPS and share price. It is therefore concluded that EPS does not have an effect on the share price of the firm.

4. Research Findings, Conclusions and Recommendations

The study sought to enlighten investors and directors whether it is profitable to invest on the stock market as firms adopted conservative dividend policies. The study has achieved this by establishing whether there is an effect of dividend policy on the share price of a firm.

4.1 Research Findings

All the firms have adopted stringent dividend policies with the mining counters not paying dividends at all. The firms have adopted a policy of financing their growth and expansion programmes using internal finance, which is cheaper. This is like the residual dividend policy in which a firm finances its projects using internal finance before paying dividends if any is left. Therefore it can be deduced that the common source of capital for financing a firms growth and expansion by use of retained profit. Hence the adoption of the conservative dividend policy by reducing the payout ratio. Most firms reduced their payout ratio due to the hyper inflationary environment. It is also noted that the dividend paid were above inflation to cushion shareholders.

According to Van Horne (1987), considerations taken into account when firms are formulating dividend policies are i) profitability of the firm ii) cash position iii) restrictive factors e.g. gearing ratio. From the study these considerations were mentioned including iv) the economic fundamentals v) survival/continuing of operations hence the need to retain most of the profits. The common source of capital for financing a firm's growth and expansion is by use of retained profit. Hence the need to reduce the payout ratio.

4.1.1 The Effect of Dividend Policy on the Share Price of a firm

H_0: there is no relationship between dividend policy and the share price of the firm.
H_1: there is a relationship between dividend policy and the share price of the firm.
The relationship between dividend policy and the share price of a firm was analyzed using the statistical package

Minitab to determine;
i) the correlation co-efficient and then testing the correlation co-efficient for significance.
ii) the F-value to test for significance.
iii) the p-values which were used to determine whether there is enough evidence to reject H_0.

According to the analysis carried out using minitab it was concluded that there is no significant relationship between dividend policy and the share prices for all the firms under study. This means that the null hypothesis is adopted as valid. This supports Miller and Modigliani (1961) irrelevant theory, although this study was open to the influence of uncertainty and market imperfections. Botha *et al* (1987), in South Africa found out that there was no effect of dividend policy on the changes in share price under the influence of uncertainty market imperfections.

If dividends are irrelevant then the share price of the firm should not change as its dividend policy changes. In the long term there should be no significant correlation between dividend policy and share prices. This therefore means that it is profitable to invest in the money and capital markets, as shareholder value is not eroded when conservative dividend policies are adopted.

Black and Scholes (1974), found out that dividend policy does not have an effect on the share prices even in the presence of taxes.

Table 26: Major Proponents of the Dividend Irrelevance Theory

Theory	Result
Miller and Modigliani (1961)	Dividend policy is irrelevant
Clientele Theorist Black and Scholes (1974)	Dividend policy is irrelevant

4.1.2 The effect of EPS on the Share Price of a firm

H_0: there is no relationship between dividend policy and the share price of the firm.
H_1: there is a relationship between dividend policy and the share price of the firm.

The relationship between EPS and the share price of a firm was analyzed using the statistical package minitab to determine;
i) the correlation co-efficient and then testing the correlation co-efficient for significance.

ii) the anova table and then use the F-value to test for significance.
iii) the p-values which were used to decide whether there is enough evidence to reject H_0.

According to the analysis carried out using minitab it was concluded that there is no significant relationship between EPS and the share prices for all the firms under study. This means that the null hypothesis is adopted as valid. An increasing dividend per share has a weak positive effect on the share price. Even though the payout ratio appears to have been decreasing the actual levels of dividends have been rising. Friend and Pucket (1964) concluded that EPS or earnings variable are more significant than dividends in determining the market values of share prices. Only a weak relationship was observed between earnings per share and share prices. Friend and Pucket (1964) concluded that there is a direct empirical relationship between dividend and market share prices, indicating an implicit preference of investors for firms with increasing dividend levels. From the study it was found that some of the firms were increasing the actual dividend levels yearly. It can be concluded that some shareholders like cash dividends but some also like growth in EPS that result from ploughing earnings back into business. The optimal dividend policy is the one that maximizes the share price of the firm which leads to maximization of shareholders wealth. According to Miller and Modigliani (1961) it implies that there is no relationship between EPS and share price.

4.1.3 Financial Performance of Firms

Research showed the firms under survey showed that firms are highly profitable despite the negative impact of the business environment. The cash position of the firm influences its decision on cash dividends. Firms with cash shortages often restrict or discontinue cash dividends. According to the research it was discovered that all the firms under study at one stage did not pay dividends at all to maintain their working capital requirements. One of the reasons why cash rich firms pay more dividends is to provide greater protection against a possible takeover by another firm.

4.1.4 Dividend Policies Followed by Firms

Zimbabwe has been experiencing a deteriorating economic down turn from 2000 up to 2009 with high levels of inflation. This has forced all of these firms under study to adopt stringent dividend policies to conserve funds to maintain the working capital. Firms had to reduce their payout ratios whilst others matched the dividends with the rate of inflation to cushion shareholders and maintain shareholder value. According Van Horne (2000), in high inflation economies earnings of firms sometimes change simply because of inflation. Some firms, who would have followed a constant dividend policy, increase their dividends to simply adjust for the effects of inflation and cushion shareholders. The real dividends amounts remain constant until fundamental change in the firm's earnings.

4.1.5 Dividends and Capital Gains

Studies by Van Horne (1987) concluded that investors prefer dividends than capital gains. Investors may not be paying much in terms of taxes and consequently they do not care about the disadvantage. Ninety percent of the firms in the study pay cash dividends and 10% pay no dividends at all meaning their shareholders are after capital gains. Some investors prefer dividends because they invest in equity to obtain regular income (interested in short term profit). Other investors prefer capital gains (interested in long term income). Capital gains are reflected through the growth in EPS. These investors who invest in equity as long-term investment will prefer capital gains as opposed to dividends.

The argument is that the firm should set a dividend policy in the hope of attracting a certain clientele group. If a firm changes its dividend policy, investors who do not want that policy have to shift to other firms. When doing this they incur capital gains tax and brokerage costs. In addition, changing of dividend policy exposes the firm to the possibility that there be a shortage of investors who like the newly adopted dividend policy. If the clientele group exists dividend policy matters and the firm should come up with a dividend policy in the light of the clientele who have invested in the firm. Miller and Modigliani (1961) counters this by saying that one clientele is the same as the other. Therefore dividend policy does not matter even if clientele exists. From Miller and Modigliani (1961) irrelevant theory it can be deduced that dividend does not have an effect on share price.

4.1.6 Signalling Effect of Dividend Declaration

According to Van Horne (1987) observations that have been made on the stock exchange after declarations are that;

1) when a firm announces an increased dividend, the price of shares increases.
2) when a firm announces a reduced dividend the price of shares decreases.
3) when the dividend remains the same the share price remains the same.

From all the firms under study it was found that there was a share price increase for all the firms which were not very significant. With a dividend increase this causes investors to value the value the firm more than if they had retained the earnings to achieve capital gains. This is why investors are prepared to pay more for the firm. With a share price increase for the firm there will be a corresponding increase in market capitalization. The Miller and Modigliani (1961) theory says that dividends are mere signals of the future prospects of the firm. An increase in dividends is a sign of prospects for higher dividends in the future. The signal causes the price of shares to go up and the decrease in dividends is a signal of lower earnings in the future. The change in price of shares simply reflects that investors have received new information about firm and not that they have preference for dividends.

4.2 Research Conclusion

It is self evident from the data that the adoption of the conservative dividend policies by the firms does not have an effect on the share price. It therefore means that shareholder value is not eroded as dividend payout ratios are decreasing. It is therefore advisable for investors and directors of firms that it is still profitable to invest on the stock market even though firms are retaining most of their funds. Even firms that do not pay dividends at all, e.g. Falcon Gold, shareholders wealth is increased through capital gains and stock price increases. This can be seen in the increase in their dividend per share and earnings per share over the period under study.

4.3 Recommendations

Based on the findings , investors and directors are advised that it is still very profitable to invest on the stock market even though firms are adopting conservative dividend policies were they are retaining most of their profits. The stock market is one investment option were firms shares are publicly bought and sold. The stock prices are largely driven by forces of demand and supply which influence the upward or downward movement of prices on a daily basis. Whilst this volatility and decrease in the payout ratio makes most investors sceptical about the stock market as an investment option, the potential for investors to create wealth remains high. The ZSE can be a driving force behind economic growth in Zimbabwe if utilized to full capacity by investors. Empirical evidence has shown that stock markets are indeed epicenters for economic growth and general improvement in the welfare of its habitats of world economies.

The ZSE is a link between entrepreneurs and the investing public. It provides an organized market place for trading under regulated conditions in the stocks and shares of firms which have satisfied stringent requirements laid down by the listing committee. This alone instills confidence in the investing public. Investors need to be assured of getting the returns from their investments. This is exactly the mandate of the ZSE as laid down in the Zimbabwe Stock Exchange Act.

The researcher also recommends that another research be carried out to determine whether there is a relationship between past share price and the present share price (random walk theory) as some investors believe it is possible to forecast future share prices from the past share prices.

NB: Financial figures used in this study for 2003 to 2008 were derived using the Old Mutual Implied Rate (OMIR) to convert ZW$ to US$ by Imara Edwards Securities in Zimbabwe Stock Exchange Overview May 2011.

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