



A STUDY ON DIVIDEND BEHAVIOUR IN SELECT CEMENT COMPANIES

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Abstract: Generation of earnings alone is not important. The way in which the earnings are distributed also matters. Earning's distribution policies will have an impact on shareholder's wealth. The present study enables one to have a close look at how the Indian cement companies go about in deciding the distribution of earnings. It will also enable corporate financial managers to identify the pattern of distribution to maximize the shareholders wealth. Industries in the corporate sector will also stand to gain by this study. They can understand the income distribution policies and their impact on market price of shares.

1. INTRODUCTION

Cement is the basic construction material in India for having infrastructure and large projects for social development like irrigation dams, hospitals, roads, etc and no other material likely to be a substitute in the near future India has emerged as the second largest country in the world after China in the production of cement. In terms of quality, technology, productivity and efficiency, India compares well with the best in the world. Indian cement industry has a bright future and the companies shall cater to the increasing global demand for cement and it necessitates a study of the performance of cement companies in India. The above points tempted the researcher to carry out the study in cement industry by choosing nine cement companies functioning in India as sample units.

2. REVIEW OF LITERATURE

Alaeto Henry Emeka(2020)¹ conducted a study on determinants of dividend policy and he concluded that the determinants of dividend payout in Nigeria are similar to those found in both developed countries and developing countries.

Bao and Liu, (2018)² in their study found that higher holdings of Level 3 assets lower the firm's distance-to-default and affect debt holders perception of credit risk in the public bond market. In this case, an improvement in transparency about risk might lead shareholders to demand higher excess dividends.

Chen and Gavius (2016)³ examined the association between earnings resulting from unrealized fair value gains and dividend policy and found a substantial increase in dividend payout ratios following the recognition of unrealised fair value gains.

Dr.Devaki,S (2009)⁴ analysed different parameters like distributed dividend, the effect of ownership pattern on dividend policy and impact of capital structure changes or shareholder's returns in corporate hotels. It was established that, institutional shareholding had a major influence of the determination in dividend payout policy of the corporate hotels in India.

Goncharov and van Triest (2011)⁵ examine the impact of positive fair value adjustments on dividend policy in Russia. The conclusion of their study challenges the presumption about the pro-cyclical effect of positive fair value adjustments are associated with relatively lower dividend payouts.

Hail (2013)⁶ conducted a study in relation to the firm valuation and suggested that agency theory predicts a decrease in dividend payments when improved public information lower's manager's need to use dividend payouts to signal their commitment to invest in growth opportunities.

Hail, Tahoun, and Wang (2014)⁷ in their study found that there was a negative association between IFRS adoption and dividend propensity, suggesting that positive information shock formed by the introduction of IFRS mitigates information symmetry and moderates the free cash flow problems, there by leading to a lower pressure on managers to pay a dividend.

Huang, H-W, D Mai and W Sun (2017)⁸ examined the US banking industry, and found that only less verifiable fair value information is associated with longer earnings announcement lag and audit report lag due to the additional time needed to audit managerial estimations.

JitendraMahakud (2005)⁹ examined the influence of shareholding pattern on dividend payout ratio of the Indian companies. The result of the study shows that there was a positive association of dividend with logged dividend earning, sales and size of the company.

Monica Singhania (2007)¹⁰ examined the dividend policy of select 590 listed Indian companies over the period 1992-2004. The analysis revealed that while the percentage of companies declaring dividend declined over the years, the average dividend per share increased by nearly eight times. This implied that those companies which declared dividend increasingly paid higher dividends over the years.

R.Sucharitha(2010)¹¹ states that a sound financial performance in a pharmaceutical company can be determined by the measure of its dividend payout features. This again refers to two basic objectives of a firm

i.e., maximizing the wealth of the firm's owners and providing sufficient funds to finance its growth. Therefore, it could be concluded that ultimate dividend policy of any company depends on numerous factors.

3. STATEMENT OF THE PROBLEM

A major decision of financial management is the dividend decision in the sense that the firm has to choose between distributing the profits to the share holders and ploughing them back into the business. The investors expect maximum return on their investment. A company on the other hand, needs to provide funds to finance its long term growth. If a company pays out as dividend most of what it earns, for its future financial requirement, it will have to depend upon outside resources which will affect the value of the firm and market price of share. The firm's decision to pay dividend must be in such a manner so as to equitably apportion the profits between dividend and retained earnings. In this direction the researcher tried to analyse the dividend policy of the select cement companies by taking nine companies functioning India as a sample unit.

4. OBJECTIVES

For carrying out the present study, the following specific objectives have been formed.

1. To know the general growth and performance of select cement companies during the study period.
2. To analyse the pattern of dividend distribution in select cement companies during the period of study.

5. HYPOTHESIS TESTED

H₀₁ Dividend payout ratio, Dividend per share, Earnings per share, Dividend yield ratio and Price earnings ratio do not differ significantly **among the** companies and **between the** years in select cement companies during the study period.

6. RESEARCH METHODOLOGY

The methodology adopted for the study entitled "A Study on Dividend Behaviour in Select Cement Companies" had the following steps,

- Population and Sample
- Data and source of data
- Period of study
- Framework of the analysis

6.1 Population and Sample

Cement industry in India constitutes sampling frame for the present study. The sample has been chosen, based on purposive sampling method. A list of cement companies that constitutes the population has been drawn from the CAPITALINE PLUS database, which has made compilation for 133 cement companies. The study proceeded by filtering the data on the cement companies based on the availability

of information relating to analysis of dividend distribution. Companies which are having information for most of the years under the study have been included as the sample. As such, the sample finally includes nine cement companies for which the information was available for a continuous period of ten years from 2011-2012 to 2021-2022. The selection of the sample companies is also based on their annual net sales, revenue, dividend distribution and their market capitalisation.

The list of cement companies that have been included in the sample category is presented in table 6.1.

Table6.1

List of Cement Companies

S.N	NAME OF THE COMPANY	ABBREVIATION
1.	ACC Ltd	ACC
2.	Ambuja Cements Ltd	ACL
3.	India Cements Ltd	ICL
4.	JK Cement Ltd	JKL
5.	Mangalam Cement Ltd	MCL
6.	Orient Cement Ltd	OCL
7.	Ramco Cement Ltd	RCL
8.	Shree Cement Ltd	SRCL
9.	UltraTech Cement Ltd	UTCL

6.2 Data and source of data

For the in-depth analysis of dividend distribution of the select cement companies, the present study has used secondary data information. It was collected from “CAPITALINE PLUS” database. The database provides complete financial statement of companies.

The variables used in the study have been selected after a detailed investigation of the available literature on the subject and discussions with several subject experts.

Table 6.2 shows the financial variables used in the present study.

Table6.2

Financial variables used in the present study

S.NO	VARIABLES	S.NO	VARIABLES
1	Net profit	4	Dividend per share
2	Total dividend paid to share holders	5	Earnings per share
3	Number of shares outstanding	6	Market value of shares

6.3 Period of the study

The study covers a period of ten years from 2011-12 to 2020-21. A year is taken to mean an accounting year of a company consisting of twelve months.

6.4 Framework of analysis

The data collected was tabulated and analysed with the help of financial ratios and statistical techniques.

- ❖ Ratio analysis was the major tool used to analyse and interpret the data. Ratio is a statistical yardstick that provides a measure of the relationship between variables. For the present study, selected ratios were applied to analyse the dividend distribution pattern of the sample units.
- ❖ Arithmetic mean is the most popular and widely used measure of representing the entire data by one value. Its value is obtained by adding together all the items and by dividing this total by number of items. It is calculated by the following formula

$$\bar{X} = \frac{\sum X}{n}$$

- ❖ Standard deviation is one of the measures of dispersion which explains the amount of deviation between the mean value and individual values of group of represents. The standard deviation is obtained by the following formula.

$$S.D. = \sqrt{\frac{\sum X^2}{n}}$$

- ❖ Co-efficient of variation is one of the relative measures of dispersion. It is defined as the ratio of standard deviation to the mean expressed in percentage. It is calculated to test the consistency of performance in sample companies during the study period. Formula for calculating Co- efficient of variation is as follows.

$$\text{Coefficient of Variation} = \frac{\sigma}{\mu} \times 100$$

- ❖ Compound annual growth rate is used to find out the year-over-year growth rate of the performance of selected cement companies CAGR was calculated. The compound annual growth rate is calculated by taking the n^{th} root of the total percentage growth rate, where 'n' is the number of years in the study period being considered.
- ❖ ANOVA is essentially a produce for testing the difference among different groups of data for homogeneity. With the help of ANOVA technique one can draw inferences about whether the sample has been drawn from population having the same mean. This technique also investigates the differences

among the mean of all population simultaneously.

7.ANALYSIS OF DIVIDEND DISTRIBUTION

In this part, an attempt has been made to analyse the dividend distribution in major and mini select cement companies situated in India with the help of the following ratios. The ratios were further analysed and tested by using Mean, Standard Deviation, Co-efficient of Variation. To identify the growth rate in dividend distribution year by year Compound Annual Growth Rate is calculated. Analysis of Variance is calculated to know variations in dividend distribution of select cement companies. The following ratios are used in the present study.

1. Dividend Payout Ratio
2. Dividends Per Share
3. Dividend Yield Ratio
4. Earnings Per Share
5. Price Earnings Ratio

Table-7.1

Dividend Payout Ratio(For the year 2012to 2021)

Name of the Company	MEAN	SD	CV(%)	CAGR(%)
ACC	45.97	19.13	41.61	0.33
ACL	62.64	50.63	80.83	3.02
ICL	12.51	26.26	209.85	-4.79
JKL	21.46	4.09	19.05	-0.64
MCL	11.67	15.75	134.96	-19.18
OCL	18.49	20.73	112.11	***
RCL	13.78	3.07	22.30	-5.70
SRCL	16.74	10.38	62.04	-2.24
UTCL	11.72	3.50	29.84	9.14
Industry Average(Year wise)	23.89	17.06	79.18	-2.51

SOURCE: Computed and compiled from CAPITALINE PLUS database.

*** CAGR could not be computed due to nil values in the series.

Table 7.1 shows the dividend payout ratio of select cement plants during the study period from 2011-2012 to 2020-2021. The overall mean value of dividend payout ratio in select cement companies shows that 23.89 per cent, in which ACL has the highest mean value of 62.64 per cent and the lowest mean value by MCL

with 11.67 per cent. Out of the nine select cement companies, the average dividend payout ratio of only two companies namely ACC and ACL are above the overall mean value of select cement companies. This implies that these companies are offering the highest payment of dividend than the other select cement companies. The least CV of variation in JKL shows that there is less variation in dividend payout ratio during the study period. The highest CAGR was found in UTCL with 9.14 per cent.

In order to test the significance of dividend payout ratio in select cement companies, the following hypothesis is framed and ANOVA technique was applied.

Hypothesis (H₀₁):

The dividend payout ratio of select cement companies do not differ significantly **among** the companies and in **between** the years.

Table 7.2
Analysis of Variance in – Dividend Payout Ratio

Source of Variation	F	P-value	F crit
Rows	6.003757	6.77E-06	2.069832
Columns	0.194143	0.994138	2.012705

Significant at 5% level.

The above table 7.2 indicates that, the calculated value 'F' was greater than the table value of 'F' at five per cent level of significance which showing that there was a significant difference in dividend payout ratio in between the years of select cement companies. But among the select cement companies the calculated value 'F' was less than the table value which shows that there was no significant difference in dividend payout ratio during the study period.

Table 7.3
Dividend per Share(For the year 2012to 2021)

Name of the Company	MEAN	SD	CV(%)	CAGR(%)
ACC	25.40	13.79	54.27	7.60
ACL	4.87	4.84	99.33	6.42
ICL	0.92	0.68	74.04	-7.41
JKL	7.30	3.66	50.15	12.98
MCL	2.18	2.17	99.62	-14.28
OCL	1.10	0.68	61.73	***
RCL	2.55	0.72	28.41	2.05
SRCL	53.00	41.83	78.92	12.98
UTCL	12.65	8.68	68.59	18.55
Industry Average	12.22	8.56	68.34	4.86

SOURCE: Computed and compiled from CAPITALINE PLUS database.

*** CAGR could not be computed due to nil values in the series.

The dividend per shares of select cement companies are presented in the table 7.3.during the study period from 2011-2012 to 2020-2021. Inselect cement companiesthe overall mean value of dividend per share wasRs12.22 percent of which SRCL has the highest mean value of 53.00 percent and the lowest mean values secured by ICL which is 0.92per cent. Out of the nine select cement companies, the average dividend per share of only three companies, namely ACC, UTCL and SRCL is higher than the overall mean value of select cement companies. This shows, that these companies are offering better returns to the shareholders' investment. The least CV of variation in RCL shows that there is less variation in dividend per share during the study period. The highest CAGR was found in UTCL with 18.55 per cent.

In order to test the significance of dividend per share in select cement companies, the following hypothesis is framed and ANOVA technique was applied.

Hypothesis (H₀₁):

The dividend per share of select cement companies do not differ significantly **among** the companies and in **between** the years.

Table7.4
Analysis of Variance in –Dividend per Share

Source of Variation	F	P-value	F crit
Rows	13.34658	1.24E-11	2.069832
Columns	1.306628	0.248716	2.012705

Significant at 5% level.

The above table 7.4 indicates that, the calculated value 'F' was greater than the table value of 'F' at five per cent level of significance which showing that there was asignificant difference in dividend per sharein between the years of select cement companies. But among the select cement companies the calculated value 'F' was less than the table value which shows that there was no significant difference in dividend per share during the study period.

Table 7.5

Dividend Yield Ratio(For the year 2012to 2021)

Name of the Company	MEAN	SD	CV(%)	CAGR(%)
ACC	1.66	0.73	43.84	2.49
ACL	2.04	1.89	92.78	-0.77
ICL	0.84	0.75	89.23	-11.49
JKL	1.23	0.86	70.03	-18.02
MCL	1.41	1.73	123.02	-20.57
OCL	1.04	0.99	95.59	***
RCL	0.66	0.42	64.43	-17.14
SRCL	0.41	0.22	54.45	-12.42
UTCL	0.38	0.11	29.61	0.41
Industry Average	1.07	0.86	73.66	-9.69

SOURCE: Computed and compiled from CAPITALINE PLUS database.

*** CAGR could not be computed due to nil values in the series.

Table 7.5 reveals the analysis of dividend yield ratio of select cement companies during the study period from 2011-2012 to 2020-2021. The overall mean value of dividend yield ratio in select cement companies was Rs 1.07 per cent, of which ACL has the highest mean value of 2.04 per cent and the lowest mean value secured by UTCL having the mean value of 0.38 per cent. Out of the nine select cement companies, the average dividend yield ratio of only four companies, namely ACC, ACL, JKL and MCL is higher than the overall mean value of select cement companies. This shows, that these companies are offering better yield to the shareholders' investment in the form of dividend. The least CV of variation in UTCL shows that there is less variation in dividend yield during the study period. The highest CAGR was found in ACC with 2.49 per cent.

In order to test the significance of dividend yield ratio in select cement companies, the following hypothesis is framed and ANOVA technique was applied.

Hypothesis (H₀₁):

The dividend yield ratio of select cement companies do not differ significantly **among** the companies and in **between** the years.

Table 7.6**Analysis of Variance in – Dividend Yield Ratio**

Source of Variation	F	P-value	F crit
Rows	3.442774	0.002075	2.069832
Columns	2.349053	0.021943	2.012705

Significant at 5% level.

The above table 7.6 indicates that, the calculated value of 'F' was greater than the table value of 'F' at five per cent level of significance among the companies and in between the years under select cement companies. Hence, it was concluded that the dividend yield ratio of select cement companies differed significantly among the companies and in between the years during the study period.

Table 7.7**Earnings per Share(For the year 2012to 2021)**

Name of the Company	MEAN	SD	CV(%)	CAGR(%)
ACC	59.63	21.30	35.72	7.24
ACL	7.46	1.84	24.66	3.29
ICL	3.65	3.25	88.95	-2.76
JKL	35.67	20.00	56.08	13.71
MCL	14.53	12.44	85.67	6.07
OCL	4.34	3.65	84.07	***
RCL	19.97	8.11	40.60	8.27
SRCL	329.85	156.63	47.49	18.47
UTCL	105.68	43.54	41.20	8.62
Industry Average	64.53	30.09	56.05	7.86

SOURCE: Computed and compiled from CAPITALINE PLUS database.

*** CAGR could not be computed due to nil values in the series.

The table 7.7 describes the analysis of earnings per share of select cement companies during the study period from 2011-2012 to 2020-2021. The overall mean value of earnings per share in select cement companies was Rs64.53 in which SRCL has the highest mean value of earnings per share Rs.329.85 and the lowest mean value is secured by ICL with Rs3.65 per share. Out of the nine cement companies selected for the study only two companies namely SRCL and UTCL earnings per share was higher than the overall mean value of select cement companies. This shows that these companies are generating better earnings for each share. The least CV of variation in ACL shows that there is less variation in earnings per share during the study period. The highest CAGR was found in SRCL with 18.47 per cent.

In order to test the significance of earnings per share in select cement companies, the following hypothesis is framed and ANOVA technique was applied.

Hypothesis (H₀₁):

The earnings per share of select cement companies do not differ significantly **among** the companies and in **between** the years.

Table 7.8

Analysis of Variance in –Earning per Share

Source of Variation	F	P-value	F crit
Rows	41.53075	5.47E-24	2.069832
Columns	2.39287	0.019683	2.012705

Significant at 5% level.

The above table 7.8 indicates that, the calculated value of 'F' was greater than the table value of 'F' at five per cent level of significance among the companies and in between the years under select cement companies. Hence, it was concluded that the earnings per share in select cement companies differed significantly among the companies and in between the years during the study period.

Table 7.9

Price Earnings Ratio(For the year 2012to 2021)

Name of the Company	MEAN	SD	CV(%)	CAGR(%)
ACC	28.00	9.87	35.25	-2.09
ACL	32.55	8.38	25.75	3.84
ICL	28.33	26.92	95.03	7.62
JKL	23.92	12.90	53.91	21.25
MCL	17.88	24.23	135.51	2.11
OCL	20.27	23.24	114.64	***
RCL	25.36	9.22	36.34	13.79
SRCL	43.84	23.47	53.54	8.75
UTCL	33.22	11.82	35.57	8.74
Industry Average	28.15	16.67	65.06	8.00

SOURCE: Computed and compiled from CAPITALINE PLUS database.

*** CAGR could not be computed due to nil values in the series.

Table 7.9 shows, the analysis of price earnings ratio of select cement plants during the study period from 2011-2012 to 2020-2021. The overall mean value of price earnings ratio in select cement companies was 28.15 per cent in which, SRCLs has the highest mean value of 43.84 per cent and the lowest mean value by the MCL with 17.88 per cent. Out of the nine cement companies selected for the study, only four companies namely ACL, ICL, SRCL and UTCL are above the overall mean value of select cement companies. This implies that these companies have a good performance in price earnings ratio than the other select cement companies'. The least CV of variation in ACL shows that there is less variation in price earnings ratio during the study period. The highest CAGR was found in JKL with 21.25 per cent.

In order to test the significance of price earnings ratio in select cement companies, the following hypothesis is framed and ANOVA technique was applied.

Hypothesis (H₀₁):

The price earnings ratio of select cement companies do not differ significantly **among** the companies and in **between** the years.

Table 7.10
Analysis of Variance in – Price Earnings Ratio

Source of Variation	F	P-value	F crit
Rows	2.781651	0.009705	2.069832
Columns	5.603191	7.68E-06	2.012705

Significant at 5% level.

The above table 7.10 indicates that, the calculated value of 'F' was greater than the table value of 'F' at five per cent level of significance among the companies and in between the years under select cement companies. Hence, it was concluded that the price earnings ratio of select cement companies differed significantly among the companies and in between the years during the study period.

8. FINDINGS OF THE RATIO ANALYSIS

1. The overall mean value of dividend payout ratio in select cement companies during the study period shows that 23.89 percent in which ACL has the highest value of 62.64 per cent and MCL has the lowest mean value with 11.67 per cent. The least CV in JKL shows that there is less variation in the dividend payout ratio. The highest CAGR was found in UTCL with 9.14 per cent.
2. The overall mean value of dividend per share in select cement companies during the study period shows that 12.22 per cent. The highest value is secured by SRCL with 53.00 per cent and the lowest mean value by ICL

with 0.92 per cent. The least CV is found in RCL indicating that the company is maintaining consistency in net profit ratio than other companies. The highest CAGR was found in UTCL with 18.55 per cent.

3. The overall mean value of dividend yield ratio in select cement companies during the study period shows that 1.07 percent in which ACL secured the highest value with 2.04 per cent and the lowest value by UTCL with 0.38 per cent. The least CV in UTCL shows that there was a consistency in operating profit. The highest CAGR was found in ACC with 2.49 per cent.
4. The overall mean value of earnings per share in select cement companies during the study period shows that 64.53 percent in which SRCL has the highest value of 329.85 per cent and the lowest value is secured by ICL with 3.65 per cent. The least CV in ACL cement reveals that it has maintained constancy in effectively managing its assets to generate earnings. The highest CAGR is found in SRCL with 18.47 per cent.
5. The overall mean value of price earnings ratio in select cement companies during the study period shows that 28.15 percent in which SRCL has the highest value of 43.84 per cent and the lowest value by MCL with 17.88 per cent. The least CV in ACL reveals that it has been earning constant return for its capital invested. The highest CAGR was found in JKL cement with 21.25 per cent.

Findings of hypotheses testing (H_{01})

The result of hypothesis shows that there was a significant difference in the dividend yield ratio, earnings per share and price earnings ratio among the companies and between the years in select cement companies during the period of study.

It had been found that there was a significant difference in the dividend payout ratio and dividend per share in between the years of select cement companies and there was no significant difference in the dividend payout ratio and dividend per share among the select cement companies during the study period.

9. CONCLUSION

Dividend policy is the most important aspect affecting the financial decision taken by the management in this area the growth rate of the firm, its credit standing, share prices and ultimately the overall value of the firm. Erroneous dividend policy may plunge the firm in financial predicament and capital structure of the firm may turn out unbalanced. Progress of the firm may be hamstrung owing to insufficiency of resources which may result in fall in earnings per share. Stock market is very likely to react to this development and share prices may tend to sag, leading to decline in total values of the firm. Extreme care and prudence on the part of the policy framer is therefore necessary. By framing optimal dividend policy, cement companies will ensure satisfactory return to the shareholders in the future years which will pave way for attracting foreign investments.

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