DETERMINANTS OF DIVIDEND POLICY – A STUDY ON INDIAN CORPORATE SECTOR

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ABSTRACT

In India, industrial production measures the output of businesses integrated in industrial sector of the economy. The industrial sector is one of the main sectors that contribute to the Indian Gross Domestic Product (GDP).Dividend policy is a key decision area in the field of financial management. The decision of the firm regarding the extent of earnings that could be paid as dividend and the extent that of could be retained by the firm is the concern of dividend policy. The present study examines the determinants of dividend policy of Indian corporate firms over the period 2010 - 2015 and attempts to explain with the help of signaling theory, agency cost theory, life cycle theory, transaction theory and free cash flow theory.Further, dividend-paying companies are more profitable, large in size and growth doesn't seem to deter Indian firms from paying higher dividends. The study was an attempt to identify the determinants of dividend policy of select industries in India. The different industries (5 units each) which are selected from six different major industries. Samples are selected on the basis of highest average dividend payment in last six years from 2009-10 to 2014-15.. The analysis was carried out with the help of financial tools like ratios and statistical tools like mean, standard deviation, Compound annual growth rate (CAGR),multiple correlation and multiple regression respectively.

Keywords:GDP,CAGR,

INTRODUCTION

The corporate investors are interested in earning the maximum return on their investment and thereby to maximize their wealth. A company, on the other hand, needs funds to finance its long-term growth. As a result, the firm's decision to pay dividends must be reached in such a manner so as to equitably apportion the profits into dividend and retained earnings. According to the Institute of Chartered Accountants of India, dividend is "a distribution to shareholders out of profits or reserves available for this purpose."The term 'dividend' refers to that part of profits of a company which is distributed among its shareholders. It is the reward to the shareholders for investing in the company.

Dividend policy is a key decision area in the field of financial management. The decision of the firm regarding the extent of earnings that could be paid as dividend and the extent that of could be retained by the firm is the concern of dividend policy. In other words, the dividend policy determines what proportion of earnings is to be paid to shareholders by way of dividends and what proportion is ploughed back in the firm itself for its reinvestment purposes. The development of such a policy will be greatly influenced by investment opportunities available to the firm and the value of dividend as against capital gains to the shareholders. Each firm should develop such a dividend policy, which divides the net earnings in to dividends and retained earnings in an optimum way to achieve the objective of maximizing the shareholders' wealth.

Dividend payout policy can be defined as a factor creating balance between company's retained earnings on one hand and paying cash and issuing new shares on the other hand. This policy could encompass a range from non-payment of any dividend to pay all the company's earnings as dividend (Reza, 2001). However, companies may distribute a fixed real amount of their profit, regardless of their income fluctuations, pay a fixed percentage of profits, or even distribute an amount of retained earnings of the past year among shareholders as the current dividend. The dividend payout policy is very important and discussion-worthy regarding two issues. On the one hand, it is an influential factor in the company's investment, and it also reduces internal resources and increases need for external sources, and on the other hand, many shareholders want cash dividend payout.

Dividend policy of a company is the strategy followed to decide the amount of dividends and the timing of the payments. There are various factors that frame a dividend policy of the company. Availability of better investment opportunities, estimated volatility of future earnings, tax considerations, financial flexibility, floatation costs and various other legal restrictions affect a company's dividend policy.

Types of Dividend Policies:

There are three types of dividend policies depending on the amount and the frequency of the dividend payouts:

- ➢ Stable Dividend Policy
- ➢ Constant Dividend Policy
- ➢ Residual Dividend Policy

Stable Dividend Policy

Under the stable dividend policy, the company aims for a steady dividend payout every year. It does not change even if the earnings are volatile every year. The approximate level of the dividend payout is determined by looking at a forecast of the company's long-term earnings. This approach aligns the dividend growth rate of the company with its long-run earnings growth rate.

 The stable dividend policy is the most popular dividend policy. Under this approach, short-term earnings' volatility is not reflected in the payouts. Hence, the shareholders can be least uncertain about the future dividends' level. This policy has the following very real possibilities:

- ❖ Dividends may rise even in periods when earnings of the company decline.
- ❖ Dividends may not increase at the same higher rate of earnings in the booming years.

Because of these, the stable dividend policy may gradually move towards a targetpayout ratio. A target payout ratio is defined as a strategic goal which represents the share of earnings that the company aims to distribute as dividends to shareholders over a long-term. One such model on these lines of gradual adjustment is the target payout ratio adjustment model. Under this model, if the earnings of the company are expected to rise and the current dividend payout ratio is below the target dividend payout ratio, the investor can calculate the estimated future dividends as follows:

Expected Dividend = (Previous Dividend) + [(Expected Increase in EPS) * (Target Payout Ratio) * (Adjustment Factor)]

Where adjustment factor = 1/ number of years over which the dividends adjustments will happen.

Constant Dividend Policy

Under the constant dividend policy a specific percentage of the company's earning is paid out as dividends every year. The short-term earnings's volatility affects the dividends in this case and hence the amount of dividend varies directly with the company's earnings. However this policy is not used very frequently in companies.

Residual Dividend Policy

Under the residual dividend policy, the company pays the dividends from the funds left after the funds for capital expenditures of the current period are deducted from the internally generated funds of the company. This policy takes the company's investment opportunity schedule target capital structure and the cost of capital raised externally into consideration.

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NEED FOR THE STUDY

Though declaration of dividend lies in the hands of Board of directors, the payment of dividend to the shareholders is important for every company. It signals that the companies are efficiently managed, generating surplus income towards dividend. Besides it also reflects on the liquidity of the company. Payment of regular dividend reflects on the goodwill and market price of the shares of the company. Hence an effort was made to study the dividend policy of select industries.

SCOPE OF THE STUDY

The study covers only six industries selection of 5 companies in each of the industry.

➢ The study focuses on trends in Earnings per share, Dividend per share and dividend payout by companies, and tries to identify the factors influencing dividend payout of companies.

➢ It also considers whether there are difference between industries in their dividend policy.

OBJECTIVES OF THE STUDY

There is a need for the investors to understand how the companies go about declaring dividend and the factors that determine dividend payment. Therefore the study was undertaken with the following objectives:

➢ To study the growth of the selected companies in terms of sales turnover, total income, total assets and net profit after tax.

➢ To find out the dividend distribution trends of the companies in terms of earnings per share, dividend per share and dividend payout ratio.

➢ To identify the factors determining dividend payout of the companies.

➢ To determine the industry wise effect on dividend policy.

HYPOTHESIS OF THE STUDY

The following hypotheses are framed and tested:

$H0_1$: There is no significant difference between the companies in terms of their average sales turnover, average total income, average total assets and average net profit after tax.

$H0_2$: There is no significant difference between the select industries in terms of average sales turnover, average total income, average total assets and average net profit after tax.

$H0_3$: There is no significant difference between the select companies in each industry regarding trends in earnings per share, dividend per share and dividend payout ratio.

$H0_4$: There is no significant difference between the select industries in terms of average earnings per share, average dividend per share and average dividend payout ratio.

LIMITATIONS OF THE STUDY

➢ The data was collected only for 6 years period.

> ➢ The data is historical, as the study is based on secondary data.
> ➢ The quality of the study depends upon the accuracy, reliability and quality of secondary data source.

PROFILE OF THE INDUSTRY

The brief profile of the sample industries, as under:

IT-Software Industry:

India is the world's largest sourcing destination for the information technology (IT) industry, accounting for approximately 67 per cent of the US\$ 124-130 billion market. The industry employs about 10 million workforces. More importantly, the industry has led the economic transformation of the country and altered the perception of India in the global economy. India's cost competitiveness in providing IT services, which is approximately 3-4 times cheaper than the US, continues to be the mainstay of its Unique Selling Proposition (USP) in the global sourcing market. However, India is also gaining prominence interms of intellectual capital with several global IT firms setting up their innovation centres in India. The IT-BPM sector which is currently valued at US\$ 143 billion is expected to grow at a Compound Annual Growth Rate (CAGR) of 8.3 per cent year-on-year to US\$ 143 billion for 2015-16. The sector is expected to contribute 9.5 per cent of India's Gross Domestic Product (GDP) and more than 45 per cent in total services export in 2015-16.

Hotel industry

Over the last decade business opportunities in India had intensified and elevated room rates occupancy levels in India. Even budget hotels are charging USD 250 per day. 'Hotel industry in India' success story is only second to China in Asia Pacific. The World Travel and Tourism Council, says that India ranks 18th in business travel and will be among the top5 very soon. India's big success stories includes the new model for development and growth; a model that is uniquely made. Indian Hotel Industry's room rates are most likely to rise 25 per cent annually and occupancy to rise up 80%, over the next two years. 'Hotel Industry in India is gaining its competitiveness as a cost effective destination. The 'Hotel Industry' is likely to add about 60,000 quality rooms, currently in different stages of planning and development which would be ready as soon. MNC Hotel Industry giants are initiating for Joint Ventures to earn their share of pie in the race. The Indian Government has approved 300 hotel projects, where half are for the luxury range. Analysts say that the manpower required by the hotel industry has increased from 7 million in 2002 to 15 million in 2010. More and more IT Professionals

are moving into the Metro cities as the USD 23 billion software services sector pushing into the Indian economy.

Pharmaceutical Industry

Today in India, Pharma Industry rank's first of India's science-based industries with wide ranges of capabilities in the complex field of drug manufacture and technology. The industry is estimated to be worth $4.5 billion,which is growing at 8-9% annually. It is one of the best and highly organized sectors. The sector specializes in term of technology, quality and range of medicines manufactured. Pharmaceutical industry promotes the sustainable development in the vital field of medicines by boosting the quality producers and many units approved by regulatory authorities in USA and UK. The companies associated with this sectors which are international have stimulated, assisted and spearheaded the dynamic development in the past 53 years and helped to put India on the pharmaceutical map of the world. The growth of Indian Pharma Industry has grown tremendously since 2008-09 in terms of exports. The Indian pharmaceutical industry has grown from a humble Rs 1,500 crore turnover in 1980 to approximately Rs 1, 00611 in 2009-10.The growth of Pharmaceutical industry in India is US$ 3.1 billion with growing rate at 14% year. As India is most advanced countries among the developing countries.

Cement Industry

Indian cement industry is the second largest cement producer in the world after china with a total capacity of 151.2 million Tonnes. (MT). Government of India has been giving immense boost to various infrastructure projects, housing facilities and road networks, the cement industry in India currently growing at an enviable pace. In the coming years more growth in the Indian cement industry is expected to come. It is predicted that the production in India would rise to 236.16 MT in FY11 & expected to rise to 262.61 MT in FY12 in the cement industry. The cement industry is dominated by 20 companies, which account for almost 70% of the total cement production in India. The companies all over India have produced 11 MT cement during April-September 2009. The Indian cement industry plays a major role in the growth of the nation for that case in any country. Industry cement industry was under full control and supervision of the government. However, it got great relief at a large extent after the economic reform which made its growth easier.

Chemical Industry

The chemical industry in India is a key constituent of Indian economy, accounting for about 2.11 percent of the gross domestic product (GDP). In terms of volume of production,

Indian chemical industry is the third largest producer in Asia and sixth largest in the world. Indian Chemical Industry generated business worth US$ 118 billion in 2014. Bulk chemicals account for 39 percent of the Indian chemical industry, followed by agrochemicals (20.3percent) and specialty chemicals (19.5 percent). India's growing per capita consumption and demand for agriculture-related chemicals offers huge scope of growth for the sector in the future. Lured by the size and returns of the Indian market, foreign firms have strengthened their presence in India. From April 2000 to May 2015, total foreign direct investment (FDI) inflows into the Indian Chemicals industry (excluding fertilisers) were US$ 10.49 billion. The Government of India has been supportive to the sector.

Paper Industry

The paper industry in India has been growing at a rapid phase as the domestic demands are on the rise. Increasing population, literacy rate, growth in GDP and changes in lifestyle of individuals are expected to account for the growth in the paper industry of India. BILT and ITC are the largest producers of paper in India. The paper industry in India is growing at the CAGR of around 9.6% during 2012-2017. The revenue of paper industry of India is expected to reach up to USD 11.83 Billion by 2017. About 70% of the total installed capacity of paper production in India is accounted by the states of Gujarat, West Bengal, Orissa, Andhra Pradesh, Karnataka and Maharashtra. Uttar Pradesh, Tamilnadu, Haryana,

Kerala, Bihar and Assam together account for about 25% of the total paper production in India. India's paper consumption has grown at a steady rate of 8% in the last five years. Consumption of paper and related products in India is set to double by 2020, from the current level of 12 million tonne.

REVIEW OF LITERATURE

This section on literature review is focussed on various dividend theories and earlier studies related to determinants of dividend policy.

2.1 Dividend Theories

The review of the literature is organized into various schools of thoughts on dividend policy which are discussed as follows:

2.1.1 The Theory of Irrelevance

There is a school of thought that argues that what a firm pays in dividends is irrelevant and that stockholders are indifferent about receiving dividends like the capital structure irrelevance proposition, the dividend irrelevance argument has its roots in a paper crafted by miller and Modigliani.

2.1.2 Residual Approach

According to this theory dividend decision has no effect on the wealth of shareholders or the prices of the shares and hence it is irrelevant so far as the valuation of the firm is concerned. This theory regards dividend decision merely as a part of financing decision because the earnings available may be retained in the business for reinvestment. But if the funds are not required in the business they any be distributed as dividends as dividends. Thus the decision to pay dividends or retain the earnings may be taken as a residual decision. This theory assumes that investors do not differentiate between dividends and retentions by the firm, their basic desire is to earn higher return on their investment opportunities giving a higher rate of return then the cost of retained earnings, the investors would be content with the firm retaining the earnings to finance the same. However, if the firm is not in a position to find profitable investment opportunities, the investors would prefer to receive the earnings in the form of dividends. Thus, a firm should retain the earnings if it has profitable investment opportunities otherwise it should pay them as dividends.

2.1.3 Modigliani and Miller Approach

Modigliani and miller have expressed in the most comprehensive manner in support of the theory of irrelevance. They maintain that dividend policy has no effect on the market price of the shares and the value of the firm is determined by the earning capacity of the firm or its investment policy. The splitting of earning between retentions and dividends, may be in any manner the firm likes, does not affect the value of the firm. As observed by M.M. " Under

conditions of perfect capital markets, rational investors, absence of tax discrimination between dividend income and capital appreciation, given the firm's investment policy, its dividend policy may have no influence on the market price of the share."

$$P_1 = P_0(1 + ke) - D_1$$

2.2 The Theory of Relevance

According Myron Gordon, John Lintner, James Walter and Richardson dividends communicate information to the investors about the firms' profitability and hence dividend decision becomes relevant. Those firms which pay higher dividends will have greater value as compared to those which do not pay dividends or have a lower dividend payout ratio.

2.2.1 Walter's Approach

Prof .Walter's approach supports the doctrine that dividend decisions are relevant and affect the value of the firm. The relationship between the internal rate of return earned by the firm and its cost of capital is very significant in determining the dividend policy to sub serve the ultimate goal of maximizing the wealth of the shareholders. Prof. Walter's model is based on the relationship between the firms return on investment and cost of capital or the required rate of return.

According to Prof. Walter if the firm earns a higher rate of return on its investment than the required rate of return, the firm should retain the earnings. Such firms are termed as growth firms and the optimum pay-out would be zero in their case. This would maximum the value of shares.In case of declining firms which do not have profitable investment, i.e., where r<k, the shareholders would stand to gain if the firm distributes it earnings. For such firms, the optimum pay-out would be 100% and the firms should distribute the entire earnings as dividends. In case of normal firms where r=k, the dividend policy will not affect the market value of shares as the shareholders will get the same return from the firm as expected by them. For such firms, there is no optimum dividend payout and the value of the firm would not change with the change in dividend rate.

$$P = D/ke + r\,(E-D)\,/\,Ke\,/ke$$

2.2.2 Gordon's Approach

Myron Gordon has also developed a model on the lines of Prof. Walter suggesting that dividends are relevant and the dividend decision of the firm affect its value.

- The firm is an all-equity firm, and it has no debt.
- No external financing is available. Consequently, retained earnings would be used to finance any expansion. Thus, just as Walter's model too confounds dividend and investment policies.
- The internal rate of return r, of the firm is constant.
- The appropriate discount rate k for the firm remains constant.
- The firm and its stream of earning are perpetual
- Corporate taxes do not exist.

$$P = E(1-b)/ke-g$$

2.3 Signaling Theory

The essential theory is 'Dividend Signaling' which was developed to deal with asymmetric information between managers and investors, (Miller & Rock 1985). It is stated by Al-Najjar and Hussainey (2009) that managers have more information about the company then investors and so they can make changes to the capital structure based on this information. Consequently, investors consider any change in dividend policy as a reflection of the company's future performance. They added that, based on this assumptions, managers are not supposed to send wrong signals to the market. In this research, the signaling theory is examined by the firm's earnings per share variable.

2.4 Life Cycle Theory

To test a maturity hypothesis, or what is essentially the firm life cycle theory of dividends, Grullon, Michaely and Swaminathan (2002) use a sample of New York (NYSE) and American (AMEX) stock exchange-listed firms that increased or decreased their dividends in the period 1967-1993. One of their main findings is the existence of a relation between dividend changes and changes in risk. They show that systematic risk declines for dividend-increasing firms while it increases for dividend-decreasing firms. In addition, they find a significant relation between the positive announcement effect associated with dividend increases and the decline in the firm's systematic risk. In terms of profitability, they find that the return on assets of dividendincreasing firms declines after the dividend increase. In sum, their evidence supports the theory. Amidu (2007) showed a positive and significant relation between return on

assets/return on equity and dividend policy for companies in Ghana. Also a high dividend payout indicates confidence of management in the stability and/or in future performance increase (Arnott and Asness, 2003). In this research, the life cycle theory is examined by two variables which are; return on assets and return on equity.

2.5 Transaction Cost Theory

This theory states that the firms having higher proportion of debt finance in total capital will have higher level of commitment to pay the fixed interest charges and this will reduce the dividend payment to common equity shareholders (Higgins, 1972 and Fama, 1974). When a firm raises capital from debt finance it is committed to pay the fixed interest charge on the debt and the principal amount, in case of failure the firm has to undergo liquidation. Thus, the risk involved in the higher ratio of financial leverage will outcome in the lower dividend payment because holding other things constant, a firm requires the internally generated profit to pay the interest obligation rather than paying it to the common equity shareholders in the form of dividends and it is proxied by debt-to-equity ratio defined as the ratio of total debt to total equity.

2.6 Agency Cost Theory

According to this theory the agency problem arises between the principal owner (shareholders) and agent (manager) when the manager takes the actions which are not beneficial to shareholders and are in their own self interest. For example, they may expend richly on perk or overinvest in negative NPV projects or enlarge the firm's size beyond its optimal capacity as the reward of manager is related with the size of the firm. The payment of dividend to common equity shareholder will reduce the excess free cash flow available with the manager thereby reducing the agency problem between the manager and shareholders (Jensen and Meckling, 1976; Rozeff, 1982 and Easterbrook, 1984). The free cash flow measured as the net operating cash flow scaled by total assets is considered as a proxy for the agency problem between shareholders and manager and we expect a positive relation between the free cash flow and dividend payout ratio. The agency problem may also arise between the bondholders and shareholders. The higher proportion of tangible or collateralizable assets will ensure higher level of protection for the bondholders thereby reducing the agency problem arising due to the conflicts between the bondholders and equity shareholders. Thus, the tangible assets measured as the ratio of net fixed assets to total assets are considered as a proxy for the agency problem between the bondholders and shareholders and we expect positive relationship between the

tangible assets and dividend payout ratio. This theory can be explained by two variables: tangibility and cash flows per share variable.

2.7 Liquidity

Liquidity is one of the important considerations in dividend decisions, because dividend represent cash outflow. The greater the liquidity of a company by having stable cash flow greater its ability to pay a dividend. Company going through development and growth may not be liquid because its funds may go into permanent working capital and fixed assets. Companies desire to maintain liquidity up to certain level in order to provide cushion to provide financial flexibility and protection against uncertainty. So in order to avoid uncertainty they may be reluctant to jeopardize this position by paying dividend. In current study Current Ratio (CR) and Quick test Ratio (QR) are used to measure liquidity. CR is most commonly used variable to measure liquidity.

2.8 Free Cash Flow Theory

Free cash flow is one of the agency problems between the manager and the shareholders. Managers may want to over invest, invest despite a lack of positive Net Present Value (NPV) projects, and they may distribute retained earnings for their personal benefits. Jensen (1986) suggested that firms that have a greater "free cash flow" could pay more dividends thereby reducing the agency costs of free cash flow. The Jensen (1986) free cash-flow hypothesis suggest that if firms have excess cash, it is better to pay this cash as dividend in order to reduce managerial discretionary funds and, thus, avoid agency costs of free cash-flow. In addition, Adelegan (2003) studied the relationship between cash flow and dividend changes in Nigeria. A sample of 63 quoted firms over a period of 1984-1997 using a modified Litner model as adopted in Charitou and Vafeas (1998). The results found significant relationship between dividend changes and cash flow. Sindhu (2014) argued that dividend payment depends on cash flow which reflects the corporation's ability to pay dividend. This theory can be explained by cash flows per share variable.

RESEARCH METHODOLOGY

Research methodology is a summary document of what procedures and methods are used in the research project. This chapter deals with the methodology adopted in the study. It includes source of data, period of study, sampling technique, statement of hypothesis and tools used for analysis.

Dividend payout is the base for attracting new investors, many investors do not know about firm's performance to make investment and to earn good dividends. Based on previous studies the variables earnings per share, return on assets, return on equity, debt-equity ratio, current ratio, tangibility ratio and cash flows per share are identified as independent variables affecting the dividend payout ratio.

The study was an attempt to identify the determinants of dividend policy of select industries in India. The different companies (5 units each) which are selected from six different major industries. Samples are selected on the basis of highest average dividend payment in last six years from 2009-10 to 2014-15.. The analysis was carried out with the help of financial tools like ratios and statistical tools like mean, standard deviation, Compound annual growth rate (CAGR),multiple correlation and multiple regression respectively.

3.1 SOURCES OF DATA

The present study is based on published data pertaining to the analysis were collected from the balance sheet and profit and loss account of selected companies for the period of study. The data was collected from the 'Prowess' database maintained by centre for monitoring Indian Economy (CMIE) and annual reports of firmslisted on Bombay Stock Exchange (BSE).

3.2 PERIOD OF STUDY

The study covered a period of six years from 2009-10 to 2014-15.

3.3 SELECTION OF SAMPLE

The study covers Six Industries in India. A selection of companies was prepared with the following criteria's:

- The data for all six years were available.
- The shares were actively traded in Bombay stock exchange (BSE).

- Only those companies which declared and dividend to their shareholders during the study period.

The following six industries were selected as sample for this study.

1. IT-Software
2. Hotel
3. Pharmaceutical
4. Cement
5. Chemical
6. Paper

List of companies selected in select industries

Table 1 List of companies selected

Thesample of listed companies selected for the study are shown below:

IT-Software Industry	Hotel Industry	Pharmaceutical Industry	Cement Industry	Chemical Industry	Paper Industry
TCS Ltd	Benares Ltd	Ajanta Pharma Ltd	OCL India Ltd	UPL Ltd	Emami papers Ltd
Infosys Ltd	EIH Ltd	Novartis India Ltd	J.K. Cement Ltd	Vinati Organics Ltd	Rainbow papers Ltd
Wipro Ltd	Mac Charles (India) Ltd	Unichem Laboratories Ltd	Birla Corporation Ltd	Navin Fluorine International Ltd	South India papers ltd
Sonata Software Ltd	Gujarat Hotel Ltd	Alkem Laboratories Ltd	Mangalam Cement Ltd	Pidilite Industries Ltd	Shree Ajit Pulp and Papers Ltd.
eClerx Ltd	Sinclairs Hotel Ltd	Amrutanjan HealthCare Ltd	Ramco Cement Ltd	Solar Industries Ltd	Seshasayee Papers Ltd

Ssource:compiled by researcher

- **IT Software Industry-** Out of 99 listed companies, 5 companies were selected.
- **Hotel Industry**- Out of 52 listed companies, 5 companies were selected.
- **Pharmaceutical Industry-**Out of 163 listed companies, 5 companies were selected.
- **Cement Industry-** Out of 92 listed companies, 5 companies were selected.
- **Chemical Industry-** Out of 231 listed companies, 5 companies were selected.
- **Paper Industry-** Out of 65 listed companies, 5 companies were selected.

3.4TOOLS USED FOR ANALYSIS

The collected data was analyzed and presented in the form of table to suit the study and also interpret the result. The following tools were used to analyze the data.

Table 2 Tools used in the study

S.no	Tools	Application in the study
1	Descriptive statistics	To compute the values for mean and standard deviation
2	CAGR	To calculate the compounded growth rate of industries
3	Multiple Correlation	To study the degree of association between various institutional variables determining the dividend policy.
4	Multiple Regression	To develop a model to analyze the influence of certain independent variables on the dependent variable namely dividend payout ratio.
5	t-test	To test the confidence level of significance

1. **RATIO ANALYSIS**

A ratio is a simple arithmetic expression of the relationship of one number to another. The technique of ratio was employed for studying the dividend policy and generates ratios influencing the dividend policy.

According to this empirical model, dividend policy is determined by the variables shown in equation 1:

$$DPR = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7$$

Where,

X_1 = dependent variable/ Dividend payout ratio

X_2 = earnings per share

X_3 = return on assets

X_4 = return on equity

X_5 = Debt-equity ratio

X_6 = Current ratio

X_7 = Tangibility ratio

X_8 = Cash flows per share

a = constant term of the model

b's = coefficient of the model

A brief description of the above variables is given below;

Dividend Payout Ratio

Dividend payout ratio is also known as payout ratio. It measures the relationship between the earnings belonging to the ordinary shareholders and the dividend paid to them. In other words the dividend payout ratio shows what percentage share of the net profits after taxes and preference dividend is paid out as dividend to the equity- holders. It can be calculated by dividing the total dividend paid to the owners by the total profits/ earnings available to them. Alternatively, it can be found out by dividing the dividend per share by the earning per share.

Dividend payout ratio $= \dfrac{\textit{Dividend per equity share}}{\textit{Earnings per share}} \times 100$

INDEPENDENT VARIABLES SELECTED FOR THE STUDY

Earnings per share

This can be defined as the ability of the firm to generate profit. The dividend payout ratio depends on the current earnings of the firm (Baker and Powell, 2000). They argued the higher the earnings, the more dividends will be paid to the investors. It has been mentioned by Al-Najjar and Hussainey (2009) that the profitability of the firm plays an important role in increasing the dividend paid to the shareholders. The added that profitability is supported by signalling theory as the firm wants to enhance the reputation of its performance. However, Bradley et al. (1998) noted that when a company expects less cash flow in future, managers decide to pay fewer dividends now to cope with the changes in the future. Furthermore, Kowalewski (2007) noted that firms with more profits and less investment opportunities paid higher dividends.

Earnings per share $= \dfrac{\textit{Net profit after- tax}}{\textit{Number of equity shares}}$

Return on assets (ROA)

According Prastowo (2002:86), Return on Assets (ROA) is used to measure the effectiveness of the company in generating profits by exploiting its assets. This ratio may give an indication of good or bad neighbour management in implementing cost control or management of his property. Return on Assets (ROA) is often used as a tool to measure the rate of return on total assets after interest expense and taxes, (Brigham, 2001:109). The high Return on Assets (ROA) will be good for the company. Investors would like the company to the value of Return on Assets (ROA) is high, as companies with Return on Assets (ROA) which is capable of producing high levels of corporate profits is greater than the Return on Assets (ROA) is low (Ang, 2001:231) Return on Assets (ROA) is a financial ratio used to measure the degree to which the assets have been used to generate profits. The greater Return on Assets (ROA) shows that the better the company's performance, because of the greater rate of return on investment. (Riyanto, 2001:267).

Return on Assets $=$ *Net income*

Total assets

Return on equity (ROE)

Return on Equity (ROE) shows the extent to which companies manage their own capital (net worth) effectively, measure the profitability of the investment that has been made owners of their own capital or shareholders of the company. Ang (2001) which states that the higher the ratio Return on Equity (ROE) will increase the profit growth.The higher the value the higher the ROE level of profit generated due to additional working capital can be used to finance the company's operations that could ultimately result in profit, (Suwarno: 2004). Irawan (2011) in his research found that the results of the Return On Equity (ROE) effect on profit growth This is due to the nature and pattern of investments made by the company are very precise so that all assets can be used efficiently so that profits be maximized. In addition to the revenue generated by capital from debt can be used to cover the cost of capital.Uwuigbe et al. (2012) analyzed the influence dividend payments have on the performances of 50 Nigerian firms in their study covering the period of 2006–2010. The result of the analysis showed positive and statistically meaningful results on Return on Equity (ROE).

Return on equity $=$ *Net income*

Shareholder's equity

Debt- Equity Ratio

This shows total debt as a percentage of the shareholders' fund. The debt-to-equity ratio is a financial ratio that indicates the relative proportion of equity and debt used to finance a company's assets. This ratio is also known as risk, gearing or leverage. Pruitt and Gitman indicate that risk affects firms' dividend policy. Firms with high growth rates and high dividend payout ratios utilize debt financing and firms with high leverage compared to their respective industry. Dhillon, however, found conflicting evidence for the relationship between dividend payout ratios and leverage. In some industries payout and leverage ratios are positively related while in other industries the relationship is negative. Rozeff ,Lloyd et al., and Collins et al. found statistically significant and negative relationship between firm's risk and the dividend payout ratios. Their findings suggest that firms having a higher level of risk will pay out dividends at lower rate.

$$\backslash \qquad \textbf{Debt ratio} = \frac{\textit{Long term debt}}{\textit{Shareholders fund}}$$

Current Ratio (CR)

Current Ratio (CR) is one measure of liquidity which aims to measure the company's ability to repay its short-term liabilities with its current assets.Komrattanapanya and Suntrauk (2013) found that dividend payout ratio and liquidity have insignificant relation. While John and Muthusamy (2010) concluded that there is a significant relationship between dividend payout and liquidity. Ahmed and Javid (2009) elaborate that liquidity position is an important determinant of dividend payout. It is measured by the current ratio, which is equal to current assets divided by current liabilities (Kania & Bacon, 2005; Kanwal & Kapoor, 2008; Ahmed & Javid, 2009), liquidity is an essential factor that affects the dividend policy. According to the literature bulk of results explains that there is positive relationship present between liquidity and dividend payout behavior (Jakob & Johannes 2008; Amidu & Abor 2006; DeAngelo et al, 2004; Ho, 2002La Porta et al, 2000);Liquidity is the extent at which a firm can pay short-term liabilities based on its liquid assets (Atrill and McLaney, 2002). Ho (2003) found that the more liquid firms in Japan have higher dividend payouts. Mehar (2002), however, suggested there is an inverse relationship between liquidity position and dividend payments from his study of companies on the Karachi Stock Exchange in Pakistan as firms with positive working capital will lower dividends. Myers and Bacon (2004) highlighted that corporations are likely to lessen dividends to spread liquidity. However, a few years later, Al-Najjar and Hussainey (2009) proved that paying lower or higher dividends does not depend on a good or bad liquidity position.

$$\textbf{Current ratio} = \frac{\textit{Current assets}}{\textit{Current liabilities}}$$

Tangibility ratio

Tangible may have an effect on dividend policy because firms with high level of tangible assets can use these as collateral for debt (Booth et al. (2001)). Consequently, such firms tend to rely less on retained earnings implying that these firms can distributes more cash in dividends. This suggests a positive association between asset tangibility and dividends. Hence, firms with high levels of tangible assets will have fewer short-term assets that can be hold as collateral to obtain the necessary financing. In Saudi Arabia, firms are highly levered with short-term bank debt playing a pivotal role in financing. In this case, Aivazian et al. (2003) analysis implies that we should observe a negative association between dividends and tangibility. To test for the above hypothesis, we use the ratio of total assets minus current assets divided by total assets as a surrogate for tangibility.

$$\textbf{Tangibility ratio} = \frac{\textit{Fixed asset}}{\textit{Total asset}} \times 100$$

Cash flows per share (CFPS)

The cash flow position of a firm is an important determinant of dividend payouts. A poor liquidity position means less generous dividend due to shortage of cash. Alli et al. argues that dividend payments depend more on cash flows, which reflect the company's ability to pay dividends, than on current earnings, which are less heavily influenced by accounting practices. They claim that current earnings do not really reflect the firm's ability to pay dividends. Amidu and Abor found a positive relationship between cash flow and dividend payout ratios. Anil and Kapoor also indicate that cash flow is an important determinant of dividend payout ratio.Brittian (1966) examines that cash flows is a more appropriate determinant of dividend policy. Cash flows highlighted the position of firm to pay dividends. In order to determine the relationship between cash flows and dividends, operation cash flows per share (CFPS) is used as proxy. There is expected that positive relationship between dividend payment and CFPS.

$$\textbf{Cash flows per share} = \frac{\textit{cash flows from operation}}{\textit{Number of shares outstanding}}$$

2. COMPOUND ANNUAL GROWTH RATE (CAGR)

Compound annual growth rate is very logical deduction. It is a critical quantitative concept because it has a very wide range of applications. It is the average annual growth rate when compounded value is taken. The FV is the future or ending value, PV is the present or starting value and n is the number of years between ending value and beginning value.

$$CAGR = (\text{Ending value/Beginning value}) \wedge (1/n)-1$$

3. MULTIPLE CORRELATION

Multiple correlation is a measure of given variables to be predicted using a linear function of a set of other variables. It is measured by the square root of the coefficient of determination, but under the particular assumptions that an intercept is included and that the best possible linear predictors are used, whereas the coefficient of determination is defined for more general cases, including those of nonlinear prediction and those in which the predicted values have not been derived from a model-fitting procedure.

4. MULTIPLE REGRESSION

When there are two independent variables and one dependent variable the   multiple regression equation assumes the form

$$Y= a+b_1X_1+b_2X_2+b_3X_3+b_4X_4+b_5X_5+b_6X_6+b_7X_7$$

Where X_1 and X_2 are two independent variables and Y being the dependent variable and the constants a, + b_1 and b_2 can be solved by solving three normal equations.

5. STUDENTS t-DISTRIBUTION

In order to know whether the correlation co-efficient on the basis of sample data is indicative of significant correlation t-test is used. The test-statistic is calculated as under,

$$t = r) \overline{\text{ n-2/1-r}^2}$$

Where, (n-2) degrees of freedom, r being coefficient of correlation between x and y.

This calculated value of t is then compared with its table value and if the calculated value is less than the table value, we accept the null hypothesis at the given level of significance.

ANALYSIS AND INTERPRETATION

The analysis of data is way to use the raw form of data into the meaningful information. After the data analysis, the new form of output will show the realistic picture of main information about the respective area. As the data analyze in the different way with different approaches, it shows the true values based on which results are interpreted and conclusion is drawn.

With due consideration to the various issues, the analysis relating to Determinants of Dividend policy of select Indian industries was made in two parts:-

Part -I   Focuses on the analyzing each of the sample companies in the select industry

Part -II Deals with studying determinants of dividend policy of each of six industries.

PART –I Company analysis

The following aspects were studied in respect of each of the select companies.

4.1 Growth of the select companies in terms of sales turnover, total income, total assets and net profit after tax.

4.2 Trends in dividend distribution of companies in terms of earnings per share, dividend per share and dividend payout ratio.

4.1 Growth of the select companies

To study the growth of the 30 select companies representing six industries, the following aspects were analyzed:

    i.   Sales turnover

    ii.   Total income

    iii.   Total assets

    iv.   Net profit after tax

SALES TURNOVER OF SELECT INDUSTRIES IN INDIA

The growth in sales turnover of the six industries for six years ending 2014-15 is presented in

  Tables 3 to 8.

Table 3 highlights the growth in sales turnover of select companies in IT-software industry during 2009-10 to 2014-15.

Table 3 Sales Turnover of select companies in IT-Software Industry (2009-10 to 2014-15)

[Rs in Crores]

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata Software Ltd	eClerx Ltd
2009-10	23044.84 (2.86%)	21140.00 (4.32%)	23006.30 (6.44%)	236.09 (-3.07%)	257.02 (30.40%)

2010-11	29275.68 (27.03%)	25385.00 (20.08%)	26401.20 (14.75%)	252.31 (6.87%)	341.91 (33.02%)
2011-12	38858.79 (32.73%)	31254.00 (23.12%)	31803.40 (20.46%)	225.37 (-10.68%)	472.47 (38.18%)
2012-13	48426.96 (24.62%)	36765.00 (17.63%)	33229.60 (4.48%)	232.97 (3.37%)	570.92 (20.84%)
2013-14	64676.08 (33.56%)	44341.00 (20.61%)	38765.10 (16.66%)	333.70 (43.24%)	713.38 (24.95%)
2014-15	73582.15 (13.77%)	47300.00 (6.67%)	41210.00 (6.31%)	466.88 (39.91%)	818.34 (14.71%)
Mean	46310.75	34364.17	32402.60	291.22	529.01
Maximum	73582.15	47300.00	41210.00	466.88	818.34
Minimum	23044.84	21140.00	23006.30	225.37	257.02
S.D	19862.13	10371.25	6977.13	94.81	215.24
t value : 2.414 significance: 0.073(significant at 0.10 level)					

Sources: CMIE Database
* Figures in parenthesis indicate year to year growth rate.

Table 3 reveals the growth in sales turnover of select companies in IT-software industry during six years ending 2014-15.

The sales turnover of TCS Ltd had increased from Rs 23044.84 crores in 2009-10 to Rs 73582.15 crores in 2014-15 with a year to year growth of 13.77 per cent and its average for six years period was at Rs 46310.75 crores. In case of Infosys Ltd, there was an increase in sales turnover from Rs 21140 crores in 2009-10 to Rs 47300.00 crores in 2014-15 with a year to year growth of 6.67 per cent. Its average stood at Rs 34364.17 crores during the period. The sales turnover of Wipro Ltd had increased from Rs23006.30 crores in 2009-10 to Rs 41210 crores with a year to year growth of 6.31 per cent and its average for six years period was at Rs 32402.60 crores. In Sonata Software Ltd, the sales turnover had increased from Rs.236.09 crores in 2009-10 to Rs 466.88 crores with a year to year growth of 39.91 per cent and its average was at Rs.291.22 crores. eClerx Ltd had shown a sales turnover had increased from Rs 257.02 in 2009-10 crores to Rs 818.34 crores in 2014-15 with a year to year growth of 14.71 per cent. Its average stood at Rs 529.01 crores.

TCS Ltd had the highest average sales turnover of Rs 46310.75 crores, followed by Infosys Ltd with a sales turnover of Rs. 34364.17 crores.

There is significant difference between the companies in terms of their sales turnover during the period of study as the't' value was found to be significant at 0.10 per cent level.

Table 4 highlights the growth in sales turnover of select companies in Hotel Industry during 2009-10 to 2014-15.

Table 4 Sales Turnover of select companies in Hotel Industry (2009-10 to 2014-15)

[Rs in Crores]

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	23.08 (17.03%)	774.13 (-12.88%)	43.53 (-33.07%)	3.22 (5.92%)	13.50 (1.58%)
2010-11	27.70 (20.01%)	1027.51 (32.73%)	54.29 (24.71%)	3.92 (21.73%)	14.99 (11.03%)
2011-12	34.96 (24.21%)	1101.84 (7.23%)	47.43 (-12.63%)	3.61 (-7.91%)	14.47 (-3.46%)
2012-13	39.20 (12.13%)	1133.77 (2.90%)	43.10 (-9.13%)	3.35 (-7.20%)	19.59 (35.38%)
2013-14	43.19 (10.18%)	1231.09 (8.58%)	42.14 (-2.22%)	3.00 (-10.45%)	22.53 (15.01%)
2014-15	47.17 (9.22%)	1323.58 (7.51%)	45.85 (8.81%)	3.20 (6.66%)	29.26 (29.87%)
Mean	35.88	1098.65	46.05	3.38	19.05
Maximum	47.17	1323.58	54.29	3.92	29.26
Minimum	23.08	774.13	42.14	3.00	13.50
S.D	9.21	189.61	4.47	0.33	6.08
t value : 1.121 significance: 0.325(insignificant)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 4 reveals the growth in sales turnover of select companies in Hotel industry recorded fluctuated trend during six years ending 2014-15.

The sales turnover of Benares Hotels Ltd showed an increase from Rs 23.08 crores in 2009-10 to Rs 47.17 crores in 2014-15 with a year to year growth of 9.22 per cent and it's average for six years period was at Rs 35.88 crores. In case of EIH Ltd, there was anincrease in sales turnover from Rs 774.13 crores in 2009-10 to Rs 1323.58 crores in 2014-15 with a year to year growth of 7.51 per cent. Its average was at Rs 1098.65 crores during the period. The sales turnover of Mac Charles India Ltd had increased from Rs 43.53 crores in 2009-10 to Rs 54.29 crores in 2010-11 with a year to year growth of 24.71 per cent and it declined from Rs 47.43 crores in 2011-12 to Rs 42.14 crores. Its average was at Rs 46.05 crores. In Gujarat Hotels Ltd, the sales turnover had declined from Rs.3.22 crores in 2009-10 to Rs 3.22 crores with a year to year growth of 6.66 per cent and its average was at Rs.3.38 crores. The sales turnover of Sinclairs Hotels Ltd showed an increase from Rs 13.50 crores in 2009-10 to Rs 29.26 crores in 2014-15 with a year to year growth of 29.87 per cent. Its average was at Rs 19.05 crores.EIH had the highest average sales turnover of Rs.1098.65 crores,.

There is no significant difference between the companies in terms their sales turnover during the period of study.

Table 5 highlights the growth in sales turnover of select companies in Pharmaceutical Industry during 2009-10 to 2014-15.

Table 5 Sales Turnover of select companies in Pharmaceutical Industry (2009-10 to 2014-15)

[Rs in Crores]

Year	Ajanta Pharma Ltd	Novartis India Ltd	Unichem Laboratories Ltd	Alkem Laboratories Ltd	Amrutanjan HealthCare Ltd
2009-10	384.77 (19.33%)	655.80 (8.73%)	693.51 (4.47%)	1362.60 (14.99%)	93.87 (-2.42%)
2010-11	458.16 (19.07%)	751.21 (14.54%)	764.74 (10.27%)	1670.64 (22.61%)	103.39 (10.14%)
2011-12	604.27 (31.89%)	844.29 (12.39%)	803.19 (5.02%)	1984.44 (18.78%)	115.24 (11.46%)
2012-13	839.20 (38.87%)	903.36 (7.00%)	1005.22 (25.15%)	2381.07 (19.98%)	135.07 (17.21%)
2013-14	1109.92 (32.26%)	865.23 (-4.22%)	1044.18 (3.87%)	2778.12 (16.67%)	138.84 (2.79%)
2014-15	1367.85 (23.24%)	874.42 (1.07%)	1098.96 (5.25%)	3299.44 (18.76%)	171.41 (23.46%)
Mean	794.02	815.71	901.63	2246.05	126.31
Maximum	1367.85	903.36	1098.96	3299.44	171.41
Minimum	384.77	655.80	693.51	1362.60	93.87
S.D	386.62	93.94	168.36	719.85	28.17
t value :2.820 significance: 0.048(significant at 0.05 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 5 reveals the growth in sales turnover of select companies in Pharmaceutical industry during six years ending 2014-15.

The sales turnover of Ajanta Pharma Ltd showed an increased from Rs 384.77 crores in 2009-10 to Rs 1367.85 crores in 2014-15 with a year to year growth of 23.24 per cent and its average for six years period was at Rs 794.02 crores. In case of Novartis India Ltd, there was an increase in sales turnover from Rs 655.80 crores in 2009-10 to Rs 903.36 crores in 2012-13 with a year to year growth of 7.00 per cent whereas it had declined from 2013-14 of Rs 865.23 crores to 2014-15 of Rs 874.42 crores. Its average was at Rs 815.71 crores during the period. The sales turnover of Unichem Lab Ltd had increased from Rs 693.51 crores in 2009-10 to Rs 1098.96 crores in 2014-15 with a year to year growth of 5.25 per cent and its average turnover was at Rs 901.63 crores. In Alkem Lab Ltd, there was an increase in sales turnover from Rs.1362.60 crores in 2009-10 to Rs 3299.44 crores with a year to year growth of 18.76 per cent and its average was at Rs.2246.05 crores. The sales turnover of Amrutanjan Ltd showed an increase from Rs 93.87 crores in 2009-10 to Rs 171.41 crores in 2014-15 with a year to year growth of 23.46 per cent. Its average was at Rs 126.31 crores. Alkem Lab Ltd had the highest average sales turnover of Rs 2246.05 crores,

There is significant difference between the companies in terms their sales turnover during the period of study as the 't' value was found to be significant at 0.05 percent level.

Table 6 highlights the growth in sales turnover of select companies in Cement industry during 2009-10 to 2014-15.

Table 6 Sales Turnover of select companies in Cement Industry during 2009-10 to 2014-15
[Rs in Crores]

Year	OCL India Ltd	J.K. Cements Ltd	Birla Corporation Ltd	Mangalam Cements Ltd	Ramco Cements Ltd
2009-10	1523.43 (19.25%)	2248.07 (19.80%)	2401.77 (17.21%)	681.84 (5.50%)	3115.21 (7.21%)
2010-11	1683.81 (10.53%)	2094.35 (-6.83%)	2153.84 (-10.32%)	496.13 (-27.23%)	2968.77 (-4.70%)
2011-12	1662.87 (-1.24%)	2546.79 (21.60%)	2596.82 (20.57%)	630.77 (27.13%)	3256.74 (9.70%)
2012-13	2073.05 (24.66%)	2911.97 (14.33%)	2994.34 (15.31%)	819.98 (30.00%)	3830.80 (17.62%)
2013-14	2120.20 (2.27%)	2795.85 (-3.98%)	3477.92 (16.15%)	805.39 (-1.78%)	3683.51 (-3.84%)
2014-15	2522.42 (18.97%)	3870.76 (38.44%)	3692.17 (6.16%)	1053.36 (30.78%)	4181.90 (13.53%)
Mean	1930.96	2744.63	2886.14	747.91	3506.15
Maximum	2522.42	3870.76	3692.17	1053.36	4181.90
Minimum	1523.43	2094.35	2153.84	496.13	2968.77
S.D	375.46	633.62	610.93	191.45	468.46
t value : 4.970 significance: 0.008(significant at 0.01 level)					

Sources: CMIE Database
*Figures in parenthesis indicate year to year growth rate.

Table 6 reveals the growth in sales turnover of select companies in Cement industry during six years ending 2014-15.

The sales turnover of OCL India Ltd had increased from Rs 1523.43 crores in 2009-10 to Rs 2522.42 crores in 2014-15 with a year to year growth of 18.97 percent and its average turnover stood for six years period was at Rs 1930.96 crores. In case of J.K Cements Ltd, the sales turnover had increased from Rs 2248.07 crores in 2009-10 to Rs 3870.76 crores in 2014-15 with a year to year growth of 38.44 per cent. Its average for six years period was at Rs 2744.63 crores. The sales turnover of Birla Corporation showed an increase from Rs 2401.77 crores in 2009-10 to Rs 3692.17 in 2014-15 crores with a year to year growth of 6.16 per cent and its average turnover stood for six years period was at Rs 2886.14 crores. In Mangalam Cement, the sales turnover had increased from Rs.681.84 crores in 2009-10 to Rs 1053.36 crores with a year to year growth of 30.78 per cent and its average was at Rs.747.91 crores. The sales turnover of Ramco cements Ltd showed an increase from Rs 3115.21 in 2009-10 crores to Rs 4181.90 crores in 2014-15 with a year to year growth of 13.53 per cent. Its average was at Rs 3506.15 crores. Ramco Cements Ltd had the highest average sales turnover of Rs 3506.15 crores, followed by Birla Corporation with a sales turnover of Rs. 2886.14 crores.

There is significant difference between the companies in terms their sales turnover during the period of study as the 't' value was found to be significant at 0.01 per cent level.

Table 7 highlights the growth in sales turnover of select companies in Chemical Industry during 2009-10 to 2014-15.

Table7 Sales Turnover of select companies in Chemical Industry during 2009-10 to 2014-15

[Rs in Crores]

Year	UPL Ltd	Vinati Organics Ltd	Navin Fluorine International Ltd	Pidilite Industries Ltd	Solar Industries Ltd
2009-10	2795.30 (7.71%	243.26 (17.32%)	441.63 (0.47%)	2028.73 (6.10%)	506.35 (10.07%)
2010-11	2911.09 (4.14%)	322.65 (32.63%)	430.74 (-2.46%)	2501.61 (23.30%)	534.01 (5.46%)
2011-12	3308.00 (13.63%)	447.46 (38.68%)	703.86 (63.40%)	2974.68 (18.91%)	723.75 (35.53%)
2012-13	3939.44 (19.08%)	596.43 (33.29%)	524.69 (-25.45%)	3331.69 (12.00%)	969.59 (33.97%)
2013-14	5234.44 (32.87%)	751.46 (25.99%)	449.14 (-14.39%)	3878.24 (16.41%)	985.51 (1.64%)
2014-15	5641.44 (7.77%)	828.34 (10.23%)	584.27 (30.08%)	4681.45 (20.71%)	1116.85 (13.32%)
Mean	3971.61	531.60	522.38	3232.73	806.01
Maximum	5641.44	828.34	703.86	4681.45	1116.85
Minimum	2795.30	243.26	430.74	2028.73	506.35
S.D	1211.02	234.29	106.82	956.66	255.41
t value : 2.445 significance: 0.071(significant at 0.10 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 7 reveals the growth in sales turnover of select companies in Chemical industry during six years ending 2014-15.

The sales turnover of UPL Ltd showed an increase from Rs 2795.30 crores in 2009-10 to Rs 5641.44 crores in 2014-15 with a year to year growth of 7.77 per cent and its average for six years period was at Rs 3971.61 crores. In case of Vinati Organics Ltd, there was an increase in sales turnover from Rs 243.26 crores in 2009-10 to Rs 828.34 crores in 2014-15 with a year to year growth of10.23 per cent. Its average was at Rs 531.60 crores during the period. The sales turnover of Navin Fluorine Ltd had increased from Rs 441.63 crores in 2009-10 to Rs 584.27 crores in 2014-15 with a year to year growth of 30.08 per cent and its average for six years period was at Rs 522.38 crores. In Pidilite Industries Ltd, the sales turnover had increased from Rs.2028.73 crores in 2009-10 to Rs 4681.85 crores in 2014-15 with a year to year growth of 20.71 per cent and its average was at Rs.3232.73 crores. Solar Industries Ltd showed an increase from Rs 506.35 in 2009-10 crores to Rs 1116.85 crores in 2014-15 with a year to year growth of 13.32 per cent and its average was at Rs 806.01 crores.

UPL Ltd had the highest average sales turnover of Rs 3971.61 crores, followed by Pidilite Industries Ltd with a sales turnover of Rs. 3232.73 crores.

There is significant difference between the companies in terms their sales turnover during the period of study as the 't' value was found to be significant at 0.10 per cent level.

Table 8 highlights the growth in sales turnover of select companies in Paper Industry during 2009-10 to 2014-15.

Table 8 Sales Turnover of select companies in Paper Industry during 2009-10 to 2014-15
[Rs in Crores]

Year	Emami Papers Ltd	Rainbow Papers Ltd	South India Papers Ltd	Shree Ajit Pulp &Papers Ltd	Seshasayee Papers Ltd
2009-10	388.19 (-11.56%)	284.03 (16.63%)	134.20 (0.16%)	95.94 (44.77%)	528.97 (-5.73%)
2010-11	429.84 (10.73%)	395.72 (39.32%)	166.66 (24.18%)	134.22 (39.89%)	573.48 (8.41%)
2011-12	489.69 (13.92%)	459.88 (16.21%)	170.41 (2.25%)	154.90 (15.41%)	639.12 (11.44%)
2012-13	510.02 (4.15%)	542.17 (17.89%)	178.21 (4.57%)	179.23 (15.71%)	880.77 (37.81%)
2013-14	546.57 (7.16%)	672.42 (24.02%)	152.23 (-14.57%)	202.09 (12.75%)	1013.38 (15.05%)
2014-15	526.31 (-3.71%)	573.21 (-14.75%)	196.91 (29.35%)	201.02 (-0.52%)	1068.20 (5.41%)
Mean	481.77	487.91	166.43	161.23	783.98
Maximum	546.57	672.42	196.91	202.09	1068.20
Minimum	388.19	284.03	134.20	95.94	528.97
S.D	60.82	137.92	21.55	41.49	233.71
t value : 3.569 significance:0.023 (significant at 0.05 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 8 reveals the growth in sales turnover of select companies in Paper industry during six years ending 2014-15.

The sales turnover of Emami papers Ltd showed an increase from Rs 388.19 crores in 2009-10 to Rs 526.31 crores in 2014-15 with a year to year growth of 3.71 per cent and its average turnover for six years period was at Rs 481.77 crores. In case of Rainbow Papers Ltd, the sales turnover had increased from Rs 284.03 crores in 2009-10 to Rs 672.42 crores in 2013-14 with a year to year growth of 24.02 per cent and it has declined from 2014-15 of Rs 573.21 crores. Its average was at Rs 487.91 crores during the period. The sales turnover of South India papers Ltd had increased from Rs 134.20 crores in 2009-10 to Rs 196.91 crores in 2014-15 with a year to year growth of 29.35 per cent and its average for six years period was at Rs 166.43 crores. In Shree Ajit papers Ltd, the sales turnover had increased from Rs.528.97 crores in 2009-10 to Rs 202.09 crores in 2013-14 with a year to year growth of 12.75 per cent and it has declined during 2014-15 of Rs 201.02 crores and its average was at Rs.161.23 crores. The sales turnover of Seshasayee Papers Ltd showed an increase from Rs 506.35 in 2009-10 crores to Rs 1068.20 crores in 2014-15 with a year to year growth of 5.41 per cent and its average for six years period was at Rs 783.98 crores.

Seshasayee Papers Ltd had the highest average sales turnover of Rs 783.98 crores, followed by Rainbow papers Ltd with a sales turnover of Rs.487.91 crores.

There is significant difference between the companies in terms their sales turnover during the period of study as the 't' value was found to be significant at 0.05 per cent level.

TOTAL INCOME OF SELECT INDUSTRIES IN INDIA

The growth in total income of six industries for six years ending 2014-15 is presented in tables 9 to 14.

Table 9 highlights the growth in total income of select companies in IT-Software Industry during 2009-10 to 2014-15.

Table: 9 Total income of select companies in IT-Software Industry (2009-10 to 2014-15)
[Rs in crores]

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata Software Ltd	eClerx Services Ltd
2009-10	23455.21 (6.87%)	22426.00 (7.99%)	23920.60 (13.78%)	271.74 (17.86%)	262.45 (36.08%)
2010-11	29931.12 (27.61%)	26532.00 (18.31%)	27140.90 (13.46%)	303.92 (11.84%)	366.02 (39.46%)
2011-12	41282.37 (37.92%)	33661.00 (26.87%)	33109.10 (21.98%)	270.55 (-10.97%)	494.80 (35.18%)
2012-13	50657.35 (22.71%)	39065.00 (16.05%)	34641.70 (4.62%)	281.04 (3.87%)	579.85 (17.19%)
2013-14	68540.40 (35.31%)	46936.00 (20.15%)	40675.90 (17.41%)	381.77 (35.84%)	729.27 (25.76%)
2014-15	78082.95 (13.92%)	51210.00 (9.10%)	43807.00 (7.69%)	508.06 (33.08%)	850.30 (17.00%)
Mean	48658.23	36638.33	33882.53	336.18	547.11
Maximum	78082.95	51210.00	43807.00	508.06	850.30
Minimum	23455.21	22426.00	23920.60	270.55	262.45
S.D	21472.83	11289.44	7622.45	93.98	220.33
t value : 2.416 significance: 0.073(significant at 0.10 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 9 reveals the growth in total income of select companies in IT-Software industry during six years ending 2014-15.

The total income of TCS Ltd showed an increase from Rs 23455.21 crores in 2009-10 to Rs 78082.95 crores in 2014-15 with a year to year growth of 13.92 per cent and its average was Rs 48658.23 crores. In case of Infosys Ltd, the total income had increased from Rs 22426 crores in 2009-10 to Rs 51210 crores in 2014-15 with a year to year growth of 9.10 per cent. Its average for six years period was at Rs 36638.33 crores. The total income of Wipro Ltd had increased from Rs 23920.60 crores in 2009-10 to Rs 43807 crores in 2014-15 with a year to year growth of 7.69 per cent and its average for six years period was at Rs 33882.53 crores. In Sonata Software Ltd, the total income had increased from Rs.271.74 crores in 2009-10 to Rs

508.06 crores in 2014-15 with a year to year growth of 33.08 per cent and its average was at Rs 336.18 crores. In eClerx Services Ltd, the total income had increased from Rs 262.45 crores in 2009-10 to Rs 850.30 crores in 2014-15 with a year to year growth of 17.00 per cent and its average for six years period was at Rs 547.11 crores.

TCS Ltd had the highest average total income of Rs 48658.23 crores, followed by Infosys Ltd with a total income of Rs.36638.33 crores.

There is significant difference between the companies in terms of their total income during the period of study as the't' value was found to be significant at 0.10 per cent level.

Table 10 highlights the growth in total income of select companies in Hotel Industry during 2009-10 to 2014-15.

Table 10 Total income of select companies in Hotel Industry during 2009-10 to 2014-15

[Rs in crores]

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	23.60 (16.94%)	907.27 (-15.07%)	69.85 (6.07%)	6.45 (60.44%)	16.03 (0.43%)
2010-11	27.73 (17.50%)	1175.51 (29.56%)	78.03 (11.71%)	7.39 (14.57%)	19.11 (19.21%)
2011-12	35.20 (26.94%)	1180.12 (0.39%)	63.36 (-18.80%)	7.72 (4.46%)	17.25 (-9.73%)
2012-13	39.85 (13.21%)	1180.07 (-0.04%)	60.99 (-3.74%)	7.91 (2.46%)	36.54 (111.82%)
2013-14	44.13 (10.74%)	1291.33 (9.42%)	62.00 (1.65%)	7.94 (0.37%)	28.47 (-22.08%)
2014-15	48.26 (9.35%)	1366.81 (5.84%)	71.80 (15.80%)	7.75 (-2.39%)	30.15 (5.91%)
Mean	36.46	1183.51	67.67	7.52	24.59
Maximum	48.26	1366.81	78.03	7.94	36.54
Minimum	23.60	907.27	60.99	6.45	16.03
S.D	9.51	155.96	6.71	0.56	8.31
t value : 1.147 significance: 0.315 (insignificant)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 10 reveals the growth in total income of select companies in Hotel industry during six years ending 2014-15.The total income of Benares Hotels Ltd had showed an increase from Rs 23.60 crores in 2009-10 to Rs 48.26 crores in 2014-15 with a year to year growth of 9.35 per cent and its average for six years period was at Rs 36.46 crores. In case of EIH Ltd, the total income had increased from Rs 907.27 crores in 2009-10 to Rs 1366.81 crores in 2014-15 with a year to year growth of 5.84 per cent and its average for six years period was at Rs 1183.51 crores. The total income of Mac Charles Ltd had increased from Rs 69.85 crores in 2009-10 to Rs 78.03 crores in 2010-11 with a year to year growth of 11.71 per cent and it has declined

from 2011-12 of Rs 63.36 to Rs 60.99 in 2012-13. Its average for six years period was at Rs 67.67 crores. In Gujarat Hotels Ltd, the total income had showed an increase from Rs.6.45 crores in 2009-10 to Rs 7.94 crores in 2013-14 with a year to year growth of 0.34 per cent and its average was at Rs 7.52 crores. The total income of Sinclairs Ltd showed an increase from Rs 16.03 crores in 2009-10 to Rs 30.15 crores in 2014-15 with a year to year growth of 5.91 per cent and its average for six years period was at Rs 24.59 crores.EIH Ltd had the highest average total income of Rs 1183.51 crores.

There is no significant difference between the companies in terms their total income during the period of study.

Table 11 highlights the growth in total income of select companies in Pharmaceutical Industry during 2009-10 to 2014-15.

Table 11 Total income of select companies in Pharmaceutical Industry(2009-10 to 2014-15)
[Rs in crores]

Year	Ajanta Pharma Ltd	Novartis India Ltd	Unichem Laboratories Ltd	Alkem Laboratories Ltd	Amrutanjan Health Care Ltd
2009-10	386.05 (19.01%)	704.42 (8.46%)	706.00 (3.58%)	1444.03 (18.59%)	102.02 (-41.76)
2010-11	463.73 (20.12%)	821.34 (16.59%)	778.18 (10.22%)	1798.91 (24.57%)	119.43 (17.06%)
2011-12	613.70 (32.33%)	933.27 (13.62%)	817.80 (5.09%)	2143.67 (19.16%)	164.91 (38.08%)
2012-13	852.65 (38.93%)	1002.28 (7.39%)	1027.16 (25.61%)	2577.29 (20.22%)	147.91 (-10.31%)
2013-14	1135.84 (33.21%)	1009.32 (0.70%)	1143.89 (11.36%)	2952.37 (14.55%)	149.48 (1.06%)
2014-15	1404.62 (23.66%)	1004.69 (-0.45%)	1119.35 (-2.14%)	3436.20 (16.38%)	175.99 (17.73%)
Mean	809.43	912.55	932.06	2392.07	143.29
Maximum	1404.62	1009.32	1143.89	3436.20	175.99
Minimum	386.05	704.42	706.00	1444.03	102.02
S.D	399.93	124.87	188.05	741.72	27.81
t value : 2.818 significance:0.048 (significant at 0.05 level)					

Sources: CMIE Database
*Figures in parenthesis indicate year to year growth rate.

Table 11 reveals the growth in total income of select companies in Pharmaceutical industry during six years ending 2014-15. The total incomeof Ajanta Pharma Ltd had increased from Rs 386.05 crores in 2009-10 to Rs 1404.62 crores in 2014-15 with a year to year growth of 23.66 per cent and its average was at Rs 809.43 crores. In case of Novartis India Ltd, there was an increase in total income from Rs 704.42 crores in 2009-10 to Rs 1009.32 crores in 2013-14 with a year to year growth of 0.70 per cent and it has declined during 2014-15 of Rs 1004.69 crores. Its average was at Rs 912.55 crores. The total incomeof Unichem Lab Ltd showed an

increased from Rs 706.00 crores in 2009-10 to Rs 1143.89 crores in 2013-14 with a year to year growth of 11.36 per cent and it has declined from 2014-15 of Rs 1119.35 crores and its average was at Rs 932.06 crores. In Alkem Lab Ltd, the total incomehad increased from Rs.1444.03 crores in 2009-10 to Rs 3436.20 crores in 2014-15 with a year to year growth of 16.38 per cent and its average was at Rs 2392.07 crores .the total income of Amrutanjan Health care Ltd showed an increase from Rs 102.02 crores in 2009-10 to Rs 175.99 crores in 2014-15 with a year to year growth of 17.73 per cent and its average for six years period was at Rs 143.29 crores. Alkem Lab Ltd had the highest average total incomeof Rs 2392.07 crores,

There is significant difference between the companies in terms of their total income during the period of study as the't' value was found to be significant at 0.05 per cent level

Table 12 highlights the growth in total income of select companies in Cement Industry during 2009-10 to 2014-15.

Table: 12 Total income of select companies in Cement Industry (2009-10 to2014-15)

[Rs in crores]

Year	OCL India Ltd	JK Cements Ltd	Birla Corporation Ltd	Mangalam Cements Ltd	Ramco CementsLtd
2009-10	1542.02 (36.78%)	2275.17 (34.91%)	2514.27 (36.79%)	751.18 (30.90%)	3107.92 (20.92%)
2010-11	1693.36 (9.81%)	2425.97 (6.62%)	2536.00 (0.86%)	576.54 (-23.24%)	2980.54 (-4.09%)
2011-12	1681.06 (-0.72%)	2939.28 (21.15%)	2708.99 (6.82%)	736.01 (27.65%)	3670.74 (23.15%)
2012-13	2085.33 (24.04%)	3399.64 (15.66%)	3110.15 (14.81%)	827.08 (12.37%)	4471.20 (21.81%)
2013-14	2141.92 (2.71%)	3269.45 (-3.82%)	3602.89 (15.84%)	812.91 (-1.71%)	4416.05 (-1.23%)
2014-15	2550.75 (19.08%)	3930.68 (20.22%)	3840.07 (6.58%)	1057.30 (30.06%)	4255.38 (-3.63%)
Mean	1949.07	3040.03	3052.06	793.51	3816.97
Maximum	2550.75	3930.68	3840.07	1057.30	4471.20
Minimum	1542.02	2275.17	2514.27	576.54	2980.54
S.D	379.65	624.09	565.85	157.01	663.75
t value : 4.807 significance:0.009(significant at 0.01 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 12 reveals the growth in total income of select companies in Cement industry during six years ending 2014-15.

The total incomeof OCL India Ltd had increased from Rs 1542.02 crores in 2009-10 to Rs 2550.75 crores in 2014-15 with a year to year growth of 19.08 per cent and its average turnover for six years period was at Rs 1949.07 crores. In case of JK Cements Ltd, there was increase in total income from Rs 2275.17 crores in 2009-10 to Rs 3930.68 crores in 2014-15 with a

growth of 20.22 per cent. Its average was at Rs 3040.03 crores during the period. The total incomeof Birla Corporation Ltd had increased from Rs 2514.27 crores in 2009-10 to Rs 3840.07 crores in 2014-15 with a year to year growth of 6.58 per cent and its average total income was at Rs 3052.06 crores. In Mangalam Cement Ltd, the total incomehad increased from Rs 751.18 crores in 2009-10 to Rs 1057.30 crores in 2014-15 with a year to year growth of 30.06 per cent and its average for six years period was at Rs 793.51 crores. The total income of Ramco Cements Ltd showed an increase from Rs 3107.92 crores in 2009-10 to Rs 4471.20 crores in 2012-13 with a year to year growth of 21.81 per cent and it has declined from 2013-14 of Rs 4416.05 to Rs 4255.38 crores in 2014-15. Its average was at Rs 3816.97 crores. Ramco Cements Ltd had the highest average total incomeof Rs 3816.97 crores

There is significant difference between the companies in terms their total income during the period of study as the't' value was found to be significant at 0.01 per cent level.

Table 13 highlights the growth in total income of select companies in Chemical Industry during 2009-10 to 2014-15.

Table: 13 Total income of select companies in Chemical Industry during (2009-10 to 2014-15)

[Rs in crores]

Year	UPL Ltd	Vinati Organics Ltd	Navin Fluorine International Ltd	Pidilite IndustriesLtd	Solar IndustriesLtd
2009-10	2940.69 (12.79%)	246.90 (26.51%)	449.53 (8.63%)	2055.59 (16.86%)	528.31 (20.64%)
2010-11	3211.46 (9.21%)	341.62 (38.36%)	461.29 (2.61%)	2530.18 (23.08%)	595.27 (12.67%)
2011-12	3656.18 (13.85%)	476.68 (39.53%)	821.41 (78.06%)	3017.46 (19.25%)	803.18 (34.92%)
2012-13	4369.57 (19.51%)	600.57 (25.99%)	573.43 (-30.19%)	3625.18 (20.14%)	987.25 (22.91%)
2013-14	5645.94 (29.21%)	760.63 (26.65%)	512.78 (-10.57%)	4168.83 (14.99%)	1004.73 (1.77%)
2014-15	6063.81 (7.40%)	837.47 (10.10%)	610.91 (19.14%)	4724.20 (13.32%)	1139.06 (13.37%)
Mean	4314.61	543.97	571.55	3353.57	842.96
Maximum	6063.81	837.47	821.41	4724.20	1139.06
Minimum	2940.69	246.90	449.53	2055.59	528.31
S.D	1294.08	232.38	137.46	1009.23	243.55
t value : 2.420 significance: 0.073(significant at 0.10 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 13 reveals the growth in total income of select companies in Chemical industry during six years ending 2014-15.The total incomeof UPL Ltd showed an increase from Rs 2940.69 crores in 2009-10 to Rs 6063.81 crores in 2014-15 with a year to year growth of 7.40 per cent and its average for six years period was at Rs 4314.61 crores. In case of Vinati organics

Ltd, there was an increase from Rs 246.90 crores in 2009-10 to Rs 837.47 crores in 2014-15 with a year to year growth of 10.10 per cent. Its average for six years period was at Rs 543.97 crores. The total incomeof Navin Fluorine Ltd had increased from Rs 449.53 crores in 2009-10 to Rs 610.91 crores in 2014-15 with a year to year growth of 19.14 per cent and its average for was at Rs 571.55 crores. In Pidilite Industries Ltd, the total incomehad increased from Rs 2055.59 crores in 2009-10 to Rs 4724.20 crores in 2014-15 with a year to year growth of 13.32 per cent and its average was at Rs 3353.57 crores. The totalincome of Solar Industries Ltd showed an increase from Rs 528.31 crores in 2009-10 to Rs 1139.06 crores in 2014-15 with a year to year growth of 13.37 per cent and its average was at Rs 842.96 crores.UPL Ltd had the highest average total incomeof Rs 4314.61 crores,

There is significant difference between the companies in terms of their total income during the period of study as the't' value was found to be significant at 0.10 per cent level

Table 14 highlights the growth in total income of select companies in Paper Industry during 2009-10 to 2014-15.

Table: 14 Total income of select companies in Paper Industry (2009-10 to 2014-15)

[Rs in crores]

Year	Emami Papers Ltd	Rainbow Papers Ltd	South India Papers Ltd	Shree Ajit Pulp & Papers Ltd	Seshasayee Papers Ltd
2009-10	421.07 (-5.06%)	282.45 (19.95%)	134.61 (4.36%)	96.11 (55.59%)	537.70 (2.41%)
2010-11	446.55 (6.05%)	405.98 (43.73%)	174.47 (29.61%)	140.24 (45.92%)	601.53 (11.87%)
2011-12	505.59 (13.22%)	464.15 (14.32%)	185.69 (6.43%)	163.44 (16.54%)	643.75 (7.01%)
2012-13	528.13 (4.46%)	549.48 (18.38%)	178.77 (-3.72%)	186.13 (13.88%)	882.24 (37.04%)
2013-14	571.60 (8.23%)	684.69 (24.61%)	152.86 (-14.49%)	203.54 (9.35%)	1069.50 (21.22%)
2014-15	545.90 (-4.49%)	587.00 (-14.26%)	197.96 (29.51%)	201.11 (-1.19%)	1074.05 (0.42%)
Mean	503.14	495.62	170.72	165.09	801.46
Maximum	571.60	684.69	197.96	203.54	1074.05
Minimum	421.07	282.45	134.61	96.11	537.70
S.D	58.45	142.45	23.09	41.46	239.62
t value : 3.579 significance: 0.023(significant at 0.05 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 14 reveals the year to year growth in total income of select companies in Paper industry during six years ending 2014-15.The total income of Emami Papers Ltd had increased from Rs 421.07 crores in 2009-10 to Rs 571.60 crores in 2013-14 with a year to year growth

of 8.23 per cent and it had declined from 2014-15 of Rs 545.90 crores. Its average total income for six years period was at Rs 503.14 crores. In case of Rainbow Papers Ltd, the total income had increased from Rs 282.45 crores in 2009-10 to Rs 684.69 crores in 2014-15 with a year to year growth of 24.61 per cent and it had declined from 2014-15 of Rs 587 crores. Its average total income for six years period was at Rs 495.62 crores. The total income of South India Papers Ltd hadshowed an increase from Rs 134.61 crores in 2009-10 to Rs 197.96 crores in 2014-15 with a year to year growth of 29.51 per cent and its average for six years period was at Rs 170.72 crores. In Shree Ajit Papers Ltd, the total income had increased from Rs 96.11 crores in 2009-10 to Rs 203.54 crores in 2013-14 with a year to year growth of 9.35 per cent and it had declined during 2014-15 of Rs 201.11.Its average total income for six years period was at Rs 165.09 crores. The total income of Seshasayee papers Ltd showed an increase from Rs 537.70 crores in 2009-10 to Rs 1074.05 crores in 2014-15 with a year to year growth of 0.42 per cent .Its average total income for six years period was at Rs 801.46 crores.

Seshasayee papers Ltd had the highest average total income of Rs 801.46 crores, followed by Emami papers Ltd with a total income of Rs.503.14 crores.

There is significant difference between the companies in terms of their total income during the period of study as the't' value was found to be significant at 0.05 per cent level.

TOTAL ASSETS OF SELECT INDUSTRIES IN INDIA

The growth in total assets of the six industries for six years ending 2014-15 is presented in tables 15 to 20.
Table 15 highlights the growth in total assets of select companies in IT-Software Industryduring 2009-10 to 2014-15.

Table 15 Total assets of select companies in IT-Software Industry (2009-10 to 2014-15)

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata Software Ltd	eClerx Services Ltd
2009-10	22431.71 (20.98%)	26066.00 (23.23%)	30327.40 (21.77%)	323.78 (30.01%)	247.09 (15.95%)
2010-11	26042.81 (16.09%)	28854.00 (10.69%)	34119.80 (12.50%)	350.10 (8.12%)	349.59 (41.48%)
2011-12	34258.81	35815.00	38595.90	342.23	451.40

	(31.54%)	(24.12%)	(13.11%)	(-2.25%)	(29.12%)
2012-13	43012.14 (25.55%)	43028.00 (20.13%)	40706.60 (5.46%)	372.04 (8.71%)	559.31 (23.91%)
2013-14	57604.19 (33.92%)	52717.00 (22.51%)	45736.90 (12.35%)	407.31 (9.48%)	727.38 (30.04%)
2014-15	63065.30 (9.48%)	61813.00 (17.25%)	53408.50 (16.77%)	477.94 (17.34%)	872.06 (19.89%)
Mean	41069.16	41382.17	40482.52	378.90	534.47
Maximum	63065.30	61813.00	53408.50	477.94	872.06
Minimum	22431.71	26066.00	30327.40	323.78	247.09
S.D	16616.49	13936.57	8269.33	56.34	234.71
t value : 2.495 significance:0.067 (significant at 0.10 level)					

[Rs in crores]

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 15 reveals the growth in total assets of select companies in IT-Software industry during six years ending 2014-15.The total assets of TCS Ltd had increased from Rs 22431.71 crores in 2009-10 to Rs 63065.30 crores in 2014-15 with a year to year growth of 9.48 per cent and its average was at Rs 41069.16 crores. In case of Infosys Ltd, the total assets had increased from Rs 26066.00 crores in 2009-10 to Rs 61813.00 crores in 2014-15 with a year to year growth of 17.25 per cent.Its average for six years period was at Rs 41382.17 crores. The total assets of Wipro Ltd showed an increase from Rs 30327.40 crores in 2009-10 to Rs 53408.50 crores in 2014-15 with a year to year growth of 16.77 per cent and its average was at Rs 40482.52 crores. In Sonata Software Ltd, the total asset had increased from Rs 323.78 crores in 2009-10 to Rs 477.94 crores in 2014-15 with a year to year growth of 17.34 per cent and its average was at Rs 378.90 crores. The total assets of Clerx Services Ltd had increased from Rs 247.09 crores in 2009-10 to Rs 872.06 crores in 2014-15 with a year to year growth of 19.89 per cent .Its average for six years period wasat Rs 534.47 crores.

Infosys Ltd had the highest average total assets of Rs 41382.17 crores, followed by TCS Ltd with a total asset of Rs.41069.16 crores.

There is significant difference between the companies in terms of their total assets during the period of study as the't' value was found to be significant at 0.10 per cent level.

Table 16 highlights the growth in total assets of select companies in Hotel Industry during 2009-10 to 2014-15.

Table 16 Total assets of select companies in Hotel Industry (2009-10 to 2014-15)

[Rs in crores]

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	33.56 (7.71%)	3078.70 (7.39%)	239.60 (11.84%)	17.38 (3.88%)	84.88 (30.30%)
2010-11	36.21 (7.89%)	3836.78 (24.62%)	246.11 (2.71%)	16.58 (-4.60%)	89.89 (5.91%)
2011-12	40.87 (12.86%)	3329.29 (-13.22%)	250.75 (1.88%)	18.30 (10.37%)	93.62 (4.14%)
2012-13	49.56 (21.26%)	3440.87 (3.35%)	261.83 (4.41%)	20.25 (10.65%)	91.66 (-2.09%)
2013-14	55.01 (10.99%)	3412.74 (-0.82%)	266.28 (1.69%)	22.03 (8.79%)	79.50 (-13.26%)
2014-15	63.33 (15.12%)	3367.20 (-1.33%)	286.05 (7.42%)	23.33 (5.91%)	84.47 (6.25%)
Mean	46.42	3410.93	258.43	19.65	87.33
Maximum	63.33	3836.78	286.05	23.33	93.62
Minimum	33.56	3078.70	239.60	16.58	79.50
S.D	11.57	245.43	16.74	2.68	5.29
t value : 1.153 significance: 0.313(insignificant)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 16 reveals the growth in total assets of select companies in Hotel industry during six years ending 2014-15.

The total assets of Benares Hotels Ltd had increased from Rs 33.56 crores in 2009-10 to Rs 63.33 crores in 2014-15 with a year to year growth of 15.12 per cent. Its average total assets was Rs 46.42 crores. In case of EIH Ltd, there was an increase in total assets from Rs 3078.70 crores in 2009-10 to Rs 3440.87 crores in 2012-13 with a year to year growth of 3.35 per cent and it had declined from 2013-14 of Rs 3412.74 crores to Rs 3367.20 crores during 2014-15.Its average for six years period was at Rs 3410.93 crores. The total assetsof Mac Charles India Ltd had increased from Rs 239.60 crores in 2009-10 to Rs 286.05 crores in 2014-15 with a year to year growth of 7.42 per cent and its average was at Rs 258.43 crores. In Gujarat Hotels Ltd, the total asset had increased from Rs 17.38 crores in 2009-10 to Rs 23.33 crores in 2014-15 with a year to year growth of 5.91 per cent and its average was at Rs 19.65 crores. The total assets of Sinclairs Ltd had increased from Rs 84.88 crores in 2009-10 to Rs 93.62 crores in 2011-12 with a year to year growth of 4.14 per cent and it had declined from 2012-13 of Rs 91.66 crores to Rs 84.47 crores in 2014-15.Its average for six years period was at Rs 87.33 crores.EIH Ltd had the highest average total assets of Rs 3410.93 crores.

There is no significant difference between the companies in terms their total assets during the period of study.

.Table 17 highlights the growth in total assets of select companies in Pharmaceutical Industry during 2009-10 to 2014-15.

Table 17 Total assets of select companies in Pharmaceutical Industry (2009-10 to 2014-15)
[Rs in crores]

Year	Ajanta Pharma Ltd	Novartis India Ltd	Unichem Laboratories Ltd	Alkem Laboratories Ltd	Amrutanjan Health Care Ltd
2009-10	465.80 (1.36%)	760.54 (13.62%)	833.11 (16.71%)	1559.34 (-2.25%)	123.08 (10.73%)
2010-11	472.91 (1.52%)	893.20 (17.44%)	915.66 (9.91%)	2570.90 (64.87%)	153.09 (24.38%)
2011-12	617.16 (30.50%)	1033.69 (15.72%)	1026.44 (12.09%)	3166.18 (23.15%)	139.62 (-8.79%)
2012-13	675.38 (9.43%)	1141.18 (10.39%)	1132.71 (10.35%)	4011.22 (26.68%)	126.55 (-9.36%)
2013-14	879.87 (30.38%)	1201.30 (5.26%)	1206.62 (6.52%)	4201.56 (4.74%)	124.23 (-1.83%)
2014-15	1085.85 (23.41%)	1241.82 (3.37%)	1221.68 (1.25%)	4866.34 (15.82%)	130.25 (4.84%)
Mean	699.49	1045.28	1056.03	3395.92	132.80
Maximum	1085.85	1241.82	1221.68	4866.34	153.09
Minimum	465.80	760.54	833.11	1559.34	123.08
S.D	242.94	187.88	158.91	1207.99	11.59
t value : 2.267 significance: 0.086(significant at 0.10 level)					

Sources: CMIE Database
* Figures in parenthesis indicate year to year growth rate.

Table 17 reveals the growth in total assets of select companies in Pharmaceutical industry during six years ending 2014-15.

The total assets of Ajanta Pharma Ltd had increased from Rs 465.80 crores in 2009-10 to Rs 1085.85 crores in 2014-15 with a year to year growth of 23.41 per cent. Its average total assets for six years period was at Rs 699.49 crores. In case of Novartis India Ltd, there was an increase in total assets from Rs 760.54 crores in 2009-10 to Rs 1241.82 crores in 2014-15 with a year to year growth of 3.37 per cent.Its average for six years period was at Rs 1045.28 crores. The total assetsof Unichem lab Ltd had increased from Rs 833.11 crores in 2009-10 to Rs 1221.68 crores in 2014-15 with a year to year growth of 1.25 per cent and its average for six years period was at Rs 1056.03 crores. In Alkem Lab Ltd, the total asset had increased from Rs 1599.34 crores in 2009-10 to Rs 4866.34 crores in 2014-15 with a year to year growth of 15.82 per cent and its average was at Rs 3395.92 crores. The total assets of Amrutanjan Health Care Ltd had increased from Rs 123.08 crores in 2009-10 to Rs 130.25 crores in 2014-15 with a year to year growth of 4.84 per cent. Its average stood at Rs 132.80 crores.

Unichem Lab Ltd had the highest average total assets of Rs 3410.93 crores, followed by Novartis India Ltd with a total assetof Rs 1045.28 crores.

There is significant difference between the companies in terms their total asets during the period of study as the 't' value was found to be significant at 0.10 per cent level.

Table 18 highlights the growth in total assets of select companies in Cement Industry during 2009-10 to 2014-15.

Table 18 Total assets of select companies in Cement Industry (2009-10 to 2014-15)

[Rs in crores]

Year	OCL India Ltd	J.K. CementsLtd	Birla Corporation Ltd	Mangalam Cements Ltd	Ramco Cements Ltd
2009-10	2056.87 (19.47%)	3002.04 (37.90%)	3038.79 (47.33%)	651.29 (25.87%)	5256.00 (12.944%)
2010-11	2154.69 (4.75%)	3402.65 (13.34%)	3603.04 (18.56%)	640.41 (-1.67%)	5704.63 (8.53%)
2011-12	2033.30 (-5.63%)	3580.35 (5.22%)	4059.60 (12.67%)	724.54 (13.14%)	6058.24 (6.19%)
2012-13	2352.35 (15.69%)	3901.94 (8.98%)	4525.49 (11.47%)	968.69 (33.69%)	6471.38 (6.81%)
2013-14	2489.05 (5.81%)	5102.74 (30.77%)	4867.12 (7.54%)	1142.32 (17.92%)	6868.56 (6.13%)
2014-15	3281.94 (31.85%)	5348.03 (4.81%)	4991.26 (2.55%)	1232.70 (7.91%)	7070.28 (2.93%)
Mean	2394.70	4056.29	4180.88	893.32	6238.18
Maximum	3281.94	5348.03	4991.26	1232.70	7070.28
Minimum	2033.30	3002.04	3038.79	640.41	5256.00
S.D	469.09	954.22	761.49	258.41	696.54
t value : 3.939 significance: 0.017(significant at 0.05 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 18 reveals the growth in total assets of select companies in Cement industry during six years ending 2014-15.

The total assets of OCL India Ltd had increased from Rs 2056.87 crores in 2009-10 to Rs 3281.94 crores in 2014-15 with a year to year growth of 31.85 per cent. Its average total assets for six years period was at Rs 2394.70 crores. In case of JK Cements Ltd, there was an increase in total assetsfrom Rs 3002.04 crores in 2009-10 to Rs 5348.03 crores in 2014-15 with a year to year growth of 4.81 per cent. Its average for six years period was at Rs 4056.29 crores. The total assetsof Birla Corporation Ltd had increased from Rs 3038.79 crores in 2009-10 to Rs 4991.26 crores in 2014-15 with a year to year growth of 2.55 per cent and its average was at Rs 4180.88 crores. In Mangalam Cement Ltd, the total asset had increased from Rs 651.29 crores in 2009-10 to Rs 1232.70 crores in 2014-15 with a year to year growth of 7.91 per cent. Its average was at Rs 893.32 crores. Ramco cements Ltd had shown a total asset increased from Rs 5256.00 crores in 2009-10 to Rs 7070.28 crores in 2014-15 with a year to year growth of 2.93 per cent .Its average stood at Rs 6238.18 crores.

Birla Corporation Ltd had the highest average total assets of Rs 4180.88 crores, followed by J.K Cements Ltd with a total assetof Rs.4056.29 crores.

There is significant difference between the companies in terms their total assets during the period of study as the 't' value was found to be significant at 0.05 per cent level.

Table 19 highlights the growth in total assets of select companies in Chemical Industry during 2009-10 to 2014-15.

Table 19 Total assets of select companies in Chemical Industry (2009-10 to 2014-15)

[Rs in crores]

Year	UPL Ltd	Vinati Organics Ltd	Navin Fluorine International Ltd	Pidilite Industries Ltd	Solar Industries Ltd
2009-10	4959.43 (0.97%)	185.31 (34.68%)	467.64 (6.67%)	1837.04 (14.14%)	451.98 (12.44%)
2010-11	5851.58 (17.98%)	257.82 (39.12%)	513.67 (9.84%)	1999.43 (8.83%)	485.07 (7.32%)
2011-12	6264.12 (7.05%)	404.57 (56.91%)	760.20 (47.99%)	2305.97 (15.33%)	629.10 (29.69%)
2012-13	7015.90 (12.01%)	546.90 (35.18%)	721.43 (-5.09%)	2538.43 (10.08%)	709.14 (12.72%)
2013-14	7082.52 (0.94%)	552.11 (0.95%)	742.20 (2.87%)	2889.21 (13.81%)	821.02 (15.77%)
2014-15	7639.31 (7.86%)	599.19 (8.52%)	791.96 (6.70%)	3267.06 (13.07%)	792.62 (-3.45)
Mean	6468.81	424.31	666.18	2472.85	648.15
Maximum	7639.31	599.19	791.96	3267.06	821.02
Minimum	4959.43	185.31	476.64	1837.04	451.98
S.D	974.38	171.56	138.68	541.23	154.86
t value :1.867 significance:0.135(insignificant)					

Sources: CMIE Database

  *Figures in parenthesis indicate year to year growth rate.

Table 19 reveals the growth in total assets of select companies in Chemical industry during six years ending 2014-15.

The total assets of UPL Ltd had increased from Rs 4959.43 crores in 2009-10 to Rs 7639.31 crores in 2014-15 with a year to year growth of 7.86 per cent. Its average total assets was at Rs 6468.81 crores. In case of Vinati Organics Ltd, there was an increase in total assets from Rs 185.31 crores in 2009-10 to Rs 599.19 crores in 2014-15 with a year to year growth of 8.52 per cent and its average was at Rs 424.31 crores. The total assetsof Navin Fluorine Ltd had increased from Rs 467.64 crores in 2009-10 to Rs 791.96 crores in 2014-15 with a year to year growth of 6.70 per cent and its average was at Rs 666.18 crores. The total assets of Pidilite Industries Ltd had increased from Rs 1837.04 crores in 2009-10 to Rs 3267.06 crores in 2014-15 with a year to year growth of 13.07 per cent. Its average for six years period was at Rs 2472.85 crores. Solar Industries Ltd shown total assets had increased from Rs 451.98 crores in

2009-10 to Rs 821.02 crores in 2013-14 with a year to year growth of 15.77 per cent and it had declined during 2014-15 of Rs 792.62 crores. Its average was at Rs 648.15 crores. UPL Ltd had the highest average total assets of Rs 6468.81 crores.

There is no significant difference between the companies in terms of their total assets during the period of study.

Table 20 highlights the growth in total assets of select companies in Paper Industry during 2009-10 to 2014-15.

Table: 20 Total assets of select companies in Paper Industry (2009-10 to 2014-15)
[Rs in crores]

Year	Emami Papers Ltd	Rainbow Papers Ltd	South India Papers Ltd	Shree Ajit Pulp & Papers Ltd	Seshasayee Papers Ltd
2009-10	633.33 (-9.91%)	654.18 (52.22%)	111.09 (4.61%)	87.33 (55.25%)	743.07 (-0.74%)
2010-11	609.10 (-3.82%)	798.20 (22.01%)	127.34 (14.62%)	93.32 (6.86%)	873.83 (17.59%)
2011-12	742.55 (21.91%)	998.16 (25.05%)	134.85 (5.89%)	106.86 (14.51%)	809.22 (-7.39%)
2012-13	797.76 (7.43%)	1399.28 (40.18%)	141.45 (4.89%)	115.84 (8.40%)	1116.65 (37.99%)
2013-14	997.07 (24.98%)	1822.01 (30.21%)	152.97 (8.14%)	135.75 (17.18%)	1093.55 (-2.07%)
2014-15	1407.97 (41.21%)	2053.01 (12.67%)	162.51 (6.23%)	141.76 (4.42%)	1100.58 (0.64%)
Mean	864.63	1287.47	138.36	113.47	956.15
Maximum	1407.97	2053.01	162.51	141.76	1116.65
Minimum	609.10	654.18	111.09	87.33	743.07
S.D	300.30	567.17	18.35	22.06	166.89
t value : 2.874 significance: 0.045(significant at 0.05 level)					

Sources: CMIE Database
*Figures in parenthesis indicate year to year growth rate.

Table 20 reveals the growth in total assets of select companies in Paper industry during six years ending 2014-15.

The total assets of Emami papers Ltd had increased from Rs 633.33 crores in 2009-10 to Rs 1407.97 crores in 2014-15 with a year to year growth of 41.21 per cent and its average total assets was at Rs 864.63 crores. In case of Rainbow Papers Ltd, there was an increase in total assets from Rs 654.18 crores in 2009-10 to Rs 2053.01 crores in 2014-15 with a year to year growth of 12.67 per cent. Its average for six years period was at Rs 1287.47 crores. The total assets of South India Papers Ltd had increased from Rs 111.09 crores in 2009-10 to Rs 162.51 crores in 2014-15 with a year to year growth of 6.23 per cent and its average for six years period was at Rs 138.36 crores. In Shree Ajit Papers Ltd, the total asset had increased from Rs 87.33 crores in 2009-10 to Rs 141.76 crores in 2014-15 with a year to year growth of 4.42 per cent and its average was at Rs 113.47 crores. Seshasayee Papers Ltd had shown total assets

increased from Rs 743.07 crores in 2009-10 to Rs 1116.65 crores in 2012-13 with a year to year growth of 37.99 per cent and it had declined from 2013-14 of Rs 1093.55 crores to 2014-15 of Rs 1100.58 crores. Its average was at Rs 956.15 crores.

Rainbow Papers Ltd had the highest average total assets of Rs 1287.47 crores, followed by Seshasayee Papers Ltd with a total asset of Rs. 956.15 crores.

There is significant difference between the companies in terms of their total assets during the period of study as the 't' value was found to be significant at 0.05 per cent level.

NET PROFIT AFTER TAX OF SELECT INDUSTRIES IN INDIA

The growth in net profit after tax of the six industries for six years ending 2014-15 is presented in tables 21 to 26.

Table 21 highlights the growth in net profit after tax of select companies in IT-Software Industry during 2009-10 to 2014-15.

Table: 21 Net profit after tax of select companies in IT-Software Industry (2009-10 to 2014-15)

[Rs in Crores]

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata Software Ltd	EClerx Ltd
2009-10	5632.49 (17.36%)	5803.00 (-0.27%)	4898.00 (-7.34%)	58.55 (-98.03%)	72.59 (19.70%)
2010-11	7569.99 (34.39%)	6443.00 (11.02%)	4843.70 (-1.11%)	61.86 (5.65%)	118.56 (63.32%)
2011-12	10975.98 (44.99%)	8470.00 (31.46%)	4685.10 (-3.27%)	14.91 (-75.89%)	157.33 (32.71%)
2012-13	12786.34 (16.49%)	9116.00 (7.62%)	5650.20 (20.59%)	15.76 (5.71%)	155.92 (-0.89%)
2013-14	18474.92 (44.48%)	10194.00 (11.82%)	7387.40 (30.74%)	53.84 (241.62%)	246.51 (58.10%)
2014-15	19256.96 (4.23%)	12164.00 (19.32%)	8193.10 (10.91%)	117.47 (118.18%)	215.77 (-12.47%)
Mean	12449.45	8698.33	5942.91	53.73	161.11
Maximum	19256.96	12164.00	8193.10	117.47	246.51
Minimum	5632.49	5803.00	4685.10	14.91	72.59
S.D	5571.59	2364.06	1491.15	37.68	63.19
t value : 2.259 significance: 0.087(significant at 0.10 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 21 reveals the growth in net profit after tax of select companies in IT-Software industry during six years ending 2014-15.

The net profit after tax of TCS Ltd had increased from Rs 5632.49 crores in 2009-10 to Rs 19256.96 crores in 2014-15 with a year to year growth of 4.23 per cent. Its average net profit after tax was at Rs 12449.45 crores. In case of Infosys Ltd, there was an increase in net profit after taxfrom Rs 5803.00 crores in 2009-10 to Rs 12164.00 crores in 2014-15 with a year to year growth of 19.32 per cent and its average was at Rs 8698.33 crores during the period. The

net profit after taxof Wipro Ltd had increased from Rs 4898.00 crores in 2009-10 to Rs 8193.10 crores in 2014-15 with a year growth of 10.91 per cent and its average for six years period was Rs 5942.91 crores. In Sonata Software Ltd, the net profit after tax had increased from Rs 58.55 crores in 2009-10 to Rs 117.47 crores in 2014-15 with a year to year growth of 118.18 per cent and its average was at Rs 53.73 crores. eClerx Services Ltd had shown net profit after tax increased from Rs 72.59 crores in 2009-10 to Rs 246.51 crores in 2013-14 with a year to year growth of 58.10 per cent and it had declined during 2014-15 of Rs 215.77 crores .Its average for six years period was at Rs 161.11 crores.

TCS Ltd had the highest average net profit after tax of Rs 12449.45 crores, followed by Infosys Ltd with a total assetof Rs. 8698.33 crores.

There is significant difference between the companies in terms of their net profit after tax during the period of study as the't' value was found to be significant at 0.10 per cent level.

Table 22 highlights the growth in net profit after tax of select companies in Hotel Industry during 2009-10 to 2014-15.

Table22 Net profit after tax of select companies in Hotel Industry 2009-10 to 2014-15
[Rs in Crores]

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	3.77 (17.44%)	57.53 (-66.34%)	24.68 (55.12%)	2.50 (4.60%)	3.43 (2.69%)
2010-11	4.90 (29.97%)	64.54 (12.18%)	28.09 (13.81%)	2.95 (18.00%)	5.23 (52.47%)
2011-12	6.19 (26.32%)	122.42 (89.68%)	14.94 (-46.81%)	3.04 (3.05%)	3.09 (-40.91%)
2012-13	8.58 (38.61%)	62.66 (-48.81%)	15.89 (6.35%)	3.34 (9.86%)	14.32 (36.43%)
2013-14	8.98 (4.66%)	101.55 (62.06%)	6.81 (-57.14%)	3.27 (-2.09%)	6.97 (-51.32%)
2014-15	9.23 (2.78%)	96.63 (-4.84%)	25.01 (26.72%)	2.73 (-16.51%)	4.74 (-31.99%)
Mean	6.94	84.22	19.23	2.97	6.29
Maximum	9.23	122.42	28.09	3.34	14.32
Minimum	3.77	57.53	6.81	2.50	3.09
S.D	2.31	26.37	8.06	0.31	4.16
t value : 1.562 significance: 0.193(insignificant)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 22 reveals the growth in net profit after tax of select companies in Hotel industry during six years ending 2014-15.

The net profit after tax of Benares Ltd had increased from Rs 3.77 crores in 2009-10 to Rs 9.23 crores in 2014-15 with a year to year growth of 2.78 per cent. Its average net profit after tax at was Rs 6.94 crores. In case of EIH Ltd, there was an increase in net profit after tax from Rs 57.53 crores in 2009-10 to Rs 122.42 crores in 2011-12 with a year to year growth of 89.68 per cent and it had declined from 2012-13 of Rs.62.66 crores to Rs 96.63 crores in 2014-15. Its

average for six years period was at Rs 84.22 crores. The net profit after taxof Mac Charles India Ltd had increased from Rs 24.68 crores in 2009-10 to Rs 28.09 crores in 2010-11 with a year to year growth of 13.81 per cent and it had declined from 2011-12 of Rs 14.94 crores to Rs 25.01 crores of 2014-15 and its average was Rs 19.23 crores. In Gujarat Hotels Ltd, the net profit after tax had increased from Rs 2.50 crores in 2009-10 to Rs 3.34 crores in 2012-13 with a growth of 9.86 per cent and it had declined from Rs 3.27 crores in 2013-14 to Rs 2.73 crores in 2014-15. Its average was at Rs 2.97 crores. Sinclairs Hotels Ltd had shown a net profit after taxincreased from Rs 3.43 crores in 2009-10 to Rs 14.32 crores in 2012-13 with a year to year growth of 36.43 per cent and it had declined from 2013-14 of Rs 6.97 crores to Rs 4.74 crores. Its average was at Rs 6.29 crores.EIH Ltd had the highest average net profit after tax of Rs 84.22 crores,

There is no significant difference between the companies in terms of their net profit after tax during the period of study.

Table 23 highlights the growth in net profit after tax of select companies in Pharmaceutical Industry during 2009-10 to 2014-15.

Table 23 Net profit after tax of select companies in Pharmaceutical Industry(2009-10 to 2014-15)

[Rs in Crores]

Year	Ajanta Pharma Ltd	Novartis India Ltd	Unichem Laboratories Ltd	Alkem Laboratories Ltd	Amrutanjan Health Care Ltd
2009-10	28.54 (33.30%)	117.32 (11.83%)	133.63 (7.92%)	238.07 (49.73%)	10.07 (-16.36%)
2010-11	46.45 (62.75%)	146.67 (25.01%)	108.50 (-18.81%)	321.94 (35.22%)	10.90 (8.24%)
2011-12	66.49 (43.14%)	152.02 (3.64%)	82.46 (-24.00%)	431.81 (34.12%)	13.04 (19.63%)
2012-13	101.12 (52.08%)	119.73 (-21.24%)	129.60 (57.16%)	466.78 (8.09%)	12.12 (-7.05%)
2013-14	220.86 (118.41%)	105.78 (-11.65%)	176.97 (36.55%)	440.20 (-5.69%)	14.52 (19.81%)
2014-15	306.37 (38.71%)	87.03 (-17.72%)	64.40 (-63.61%)	438.84 (-0.30%)	17.29 (19.07%)
Mean	128.31	121.42	115.92	389.61	12.99
Maximum	306.37	152.02	176.97	466.78	17.29
Minimum	28.54	87.03	64.40	238.07	10.07
S.D	110.89	24.57	40.14	89.73	2.62
t value : 2.451 significance: 0.070(significant at 0.10 level)					

Sources: CMIE Database

* Figures in parenthesis indicate year to year growth rate.

Table 23 reveals the growth in net profit after tax of select companies in Pharmaceutical Industry during six years ending 2014-15.

The net profit after tax of Ajanta Pharma Ltd had increased from Rs 28.54 crores in 2009-10 to Rs 306.37 crores in 2014-15 with a year to year growth of 38.71 per cent and its average net profit after tax was at Rs 128.31 crores. In case of Novartis India Ltd, the net profit after taxhad increased from Rs 117.32 crores in 2009-10 to Rs 152.02 crores in 2011-12 with a year to year growth of 3.64 per cent and it had declined from 2012-13 of Rs.119.73 crores to Rs.87.03 crores in 2014-15. Its average for six years period was at Rs 121.42 crores. The net profit after taxof Unichem Lab Ltd had increased from Rs 133.63 crores in 2009-10 to Rs 176.97 crores in 2013-14 with a year to year growth of 36.55 per cent and it had declined during 2014-15 of Rs 64.40 crores and its average for six years period was at Rs 115.92 crores. In Alkem Lab Ltd, the net profit after tax had increased from Rs 238.07 crores in 2009-10 to Rs 466.78 crores in 2012-13 with a year to year growth of 8.09 per cent and it had declined from Rs 440.20 crores in 2013-14 to Rs 438.84 crores in 2014-15. Its average for six years period was at Rs 389.61 crores. Amrutanjan Health Care Ltd had shown net profit after tax increased from Rs 10.07 crores in 2009-10 to Rs 17.29 crores in 2014-15 with a year to year growth of 19.07 per cent and its average for six years period was at Rs 12.99 crores.

Alkem Lab Ltd had the highest average net profit after tax of Rs 389.61 crores, followed by Ajanta Pharma Ltd with a net profit after taxof Rs. 128.31 crores.

There is significant difference between the companies in terms their net profit after tax during the period of study as the't' value was found to be significant at 0.10 per cent level. Table 24 highlights the growth in net profit after tax of select companies in Cement Industry during 2009-10 to 2014-15

Table 24 Net profit after tax of select companies in Cement Industry(2009-10 to 2014-15)

[Rs in Crores]

Year	OCL India Ltd	J.K. Cements Ltd	Birla Corporation Ltd	Mangalam Cements Ltd	Ramco Cements Ltd

2009-10	164.81 (46.49%)	219.57 (54.13%)	543.45 (71.05%)	116.61 (20.50%)	353.57 (-2.78%)
2010-11	114.47 (-30.54%)	64.05 (-70.82%)	319.88 (-41.13%)	38.24 (-67.21%)	210.91 (-40.34%)
2011-12	31.81 (-72.21%)	177.33 (176.86%)	239.21 (-25.22%)	55.99 (46.41%)	385.21 (82.64%)
2012-13	156.39 (391.63%)	233.55 (31.70%)	269.82 (12.79%)	77.37 (38.18%)	403.65 (4.78%)
2013-14	97.88 (-37.41%)	97.03 (-58.45%)	129.76 (-51.91%)	29.61 (-61.72%)	137.70 (-65.88%)
2014-15	113.69 (16.15%)	156.92 (61.72%)	175.44 (35.20%)	17.92 (-39.47%)	242.35 (75.99%)
Mean	113.17	158.07	279.59	55.95	288.89
Maximum	164.81	233.55	543.45	116.61	403.65
Minimum	31.81	64.05	129.76	17.92	137.70
S.D	47.72	66.95	145.78	36.31	107.45
t value :3.904 significance: 0.017(significant at 0.05 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 24 reveals the growth in net profit after tax of select companies in Cement Industry during six years ending 2014-15.

The net profit after tax of OCL India Ltd had shown a decreased year to year growth from Rs 164.81 crores in 2009-10 to Rs 113.69 crores in 2014-15 with a declined growth of 38.71 per cent. Its average was at Rs 113.17 crores. In case of J.K Cements Ltd, the net profit after taxhad increased from Rs 219.57 crores in 2009-10 to Rs 233.55 crores in 2012-13 with a year to year growth of 31.70 per cent and declined from 2013-14 of Rs.97.03 crores to Rs.156.92 crores in 2014-15. Its average was at Rs 158.07 crores. The net profit after taxof Birla Corporation Ltd had decreased from Rs 543.45 crores in 2009-10 to Rs 175.44 crores in 2014-15 with a declined growth of 35.20 per cent and its average for six years period was at Rs 279.59 crores. In Mangalam Cement Ltd, the net profit after tax had decreased from Rs 116.61 crores in 2009-10 to Rs 17.92 crores in 2014-15 with a declined growth of 39.47 per cent .Its average stood at Rs 55.95 crores. Ramco Cement Ltd shown a net profit after taxwas increased from Rs 353.57 crores in 2009-10 to Rs 403.65 crores in 2012-13 with a year to year growth of 4.78 per cent and it had declined from 2013-14 of Rs 137.70 crores to Rs 242.35 crores in 2014-15 and its average for six years period was at Rs 288.89 crores.

Ramco Cements Ltd had the highest average net profit after tax of Rs 288.89 crores, followed by Birla Corporation Ltd with a net profit after taxof Rs. 279.59 crores.

There is significant difference between the companies in terms of their net profit after tax during the period of study as the't' value was found to be significant at 0.05 per cent level.

Table 25 highlights the growth in net profit after tax of select companies in Chemical Industry during 2009-10 to 2014-15.

Table: 25 Net profit after tax of select companies in Chemical Industry (2009-10 to 2014-15)

[Rs in Crores]

Year	UPL Ltd	Vinati OrganicsLtd	Navin FluorineLtd	Pidilite Industries Ltd	Solar Industries Ltd
2009-10	149.76 (7.57%)	39.99 (59.96%)	74.36 (64.40%)	289.12 (97.51%)	30.99 (15.98%)
2010-11	157.50 (5.16%)	51.97 (29.95%)	71.64 (-3.65%)	303.89 (5.10%)	50.29 (62.28%)
2011-12	227.04 (44.15%)	54.81 (5.46%)	231.24 (222.78%)	334.51 (10.07%)	60.89 (21.07%)
2012-13	208.13 (-8.33%)	68.66 (25.26%)	43.16 (-81.33%)	460.76 (37.74%)	75.82 (24.51%)
2013-14	415.73 (99.74%)	86.15 (25.47%)	50.66 (17.37%)	468.61 (1.70%)	83.84 (10.57%)
2014-15	463.33 (11.45%)	115.79 (34.40%)	49.38 (-2.52%)	501.86 (7.09%)	107.92 (28.72%)
Mean	270.24	69.56	86.74	393.12	68.29
Maximum	463.33	115.79	231.24	501.86	107.92
Minimum	149.76	39.99	43.16	289.12	30.99
S.D	135.21	27.62	71.91	94.13	26.97
t value : 2.694 significance: 0.054 (significant at 0.10 level)					

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 25 reveals the growth in net profit after tax of select companies in chemical industry during six years ending 2014-15.

The net profit after tax of UPL Ltd had increased from Rs 149.76 crores in 2009-10 to Rs 463.33 crores in 2014-15 with a year to year growth of 11.45 per cent. Its average net profit after tax was at Rs 270.24 crores. In case of Vinati Organics Ltd, there was an increase in net profit after tax from Rs 39.99 crores in 2009-10 to Rs 115.79 crores in 2014-15 with a year to year growth of 34.40 per cent. Its average for six years period was at Rs 69.56 crores The net profit after tax of Navin Fluorine Ltd had increased from Rs 74.36 crores in 2009-10 to Rs 231.24 crores in 2011-12 with a year to year growth of 222.78 per cent and it had declined from 2012-13 of Rs 43.16 crores to Rs 49.38 crores in 2014-15 and its average for six years period was at Rs 86.74 crores. In Pidilite Industries Ltd, the net profit after tax had increased from Rs 289.12 crores in 2009-10 to Rs 501.86 crores in 2014-15 with a year to year growth

of 7.09 per cent. Its average was at Rs 393.12 crores. Solar Industries Ltd had shown a net profit after tax increased from Rs 30.99 crores in 2009-10 to Rs 107.92 crores in 2014-15 with a year to year growth of 28.72 per cent and its average for six years period was at Rs 68.29

crores. Pidilite Industries Ltd had the highest average net profit after tax of Rs 393.12 crores, followed by UPL Ltd with a net profit after tax of Rs. 270.24 crores.

There is significant difference between the companies in terms their net profit after tax during the period of study as the 't' value was found to be significant at 0.10 per cent level.

Table 26 highlights the growth in net profit after tax of select companies in Paper Industry during 2009-10 to 2014-15.

Table 26 Net profit after tax of select companies in Paper Industry (2009-10 to 2014-15)

[Rs in Crores]

Year	Emami Papers Ltd	Rainbow Papers Ltd	South India PapersLtd	Shree Ajit Pulp &Papers Ltd	Seshasayee Papers Ltd
2009-10	7.00 (-68.49%)	23.59 (-0.08%)	13.76 (64.98%)	7.74 (27.41%)	39.93 (16.66%)
2010-11	13.87 (98.14%)	37.11 (57.31%)	13.87 (0.79%)	8.77 (13.31%)	65.00 (62.78%)
2011-12	8.31 (-40.08%)	32.72 (-11.82%)	15.40 (11.03%)	7.70 (-12.20%)	34.10 (-47.53%)
2012-13	11.55 (38.98%)	35.20 (7.57%)	13.65 (-11.36%)	14.09 (82.98%)	20.51 (-39.85%)
2013-14	18.61 (61.12%)	24.04 (-31.71%)	3.89 (-71.51%)	12.18 (-13.55%)	26.79 (30.61%)
2014-15	12.17 (-34.61%)	24.44 (1.66%)	13.53 (247.81%)	7.12 (-41.54%)	17.35 (-35.23%)
Mean	11.91	29.51	12.35	9.60	33.94
Maximum	18.61	37.11	15.40	14.09	65.00
Minimum	7.00	23.59	3.89	7.12	17.35
S.D	4.14	6.18	4.21	2.85	17.36

t value : 3.834   significance:0.019 (significant at 0.05 level)

Sources: CMIE Database

*Figures in parenthesis indicate year to year growth rate.

Table 26 reveals the growth in net profit after tax of select companies in Paper Industry during six years ending 2014-15.

The net profit after tax of Emami Papers Ltd had increased from Rs 7.00 crores in 2009-10 to Rs 18.61 crores in 2013-14 with a year to year growth of 61.12 per cent and it had declined

during 2014-15 at Rs.12.17crores Its average net profit after tax for six years period was at Rs 11.91 crores. In case of Rainbow Papers Ltd, the net profit after taxhad increased from Rs 23.59 crores in 2009-10 to Rs 37.11 crores in 2010-11 with a year to year growth of 57.31 per cent

and declined from Rs 32.72 crores in 2011-12 to Rs 24.44 crores in 2014-15.Its average was at Rs 29.51 crores during the period. The net profit after taxof South India Papers Ltd had increased from Rs 13.76 crores in 2009-10 to Rs 15.40 crores in 2011-12 with a year to year growth of 11.03 per cent and it had declined from 2012-13 of Rs 13.65 crores to Rs 13.53 crores in 2014-15 and its average for six years period was at Rs 12.35 crores. In Shree Ajit Papers Ltd, the net profit after tax had increased from Rs 7.74 crores in 2009-10 to Rs 14.09 crores in 2012-13 with a year to year growth of 82.98 per cent but the growth in net profit after tax had declined from 2013-14 of Rs 12.18 crores to Rs 7.12 crores in 2014-15. Its average for six years period was at Rs 9.60 crores. Seshasayee papers Ltd had shown net profit after tax increased from Rs 39.93 crores in 2009-10 to Rs 65.00 crores in 2010-11 with a year to year growth of 62.78 per cent and its average for six years period was at Rs 33.94 crores.

 Seshasayee Papers Ltd had the highest average net profit after tax of Rs 33.94 crores, followed by Rainbow Papers Ltd with a net profit after taxof Rs. 29.51 crores.

There is significant difference between the companies in terms of their net profit after tax during the period of study as the't' value was found to be significant at 0.05 per cent level.

4.2 TRENDS IN DIVIDEND DISTRIBUTION OF COMPANIES

To analysis the trends in dividend distribution the following variables were taken into account in respect of select companies under study.

i . Earnings per share of companies

ii. Dividend per share of companies

iii. Dividend payout ratio of companies

 EARNINGS PER SHARE OF SELECT INDUSTRIES IN INDIA

The trend in earnings per share of six industries for six years ending 2014-15 is presented in tables 27 to 32.
Table 27 highlights the trend in earnings per share of select companies in IT-Software Industry during 2009-10 to 2014-15.

Table 27 Earnings per share of select companies in IT-Software Industry (2009-10 to 2014-15)
[in Rs]
Sources: CMIE Database

Table 27 indicates the compound annual growth rate in earnings per share of IT-Software Industry for a period of six years. The Earnings per share of TCS Ltd registered a compound annual growth rate at 28 per cent and 14 per cent of growth rate in Sonata Software Ltd and Eclerx Ltd. The least two position were secured by Wipro Ltd was 11 per cent followed by the Infosys Ltd of 10 per cent.

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata Ltd	eClerx Ltd
2009-10	28.62	101.13	33.36	5.72	38.14
2010-11	38.62	112.22	19.73	5.88	41.09
2011-12	55.97	147.50	19.05	1.42	54.14
2012-13	65.23	158.75	22.94	1.50	52.19
2013-14	94.17	178.40	29.95	5.12	81.69
2014-15	98.31	105.91	33.18	11.17	71.09
CAGR (%)	28.00	10.00	11.00	14.00	14.00
Mean	63.48	133.98	26.36	5.13	56.39
Maximum	98.31	178.40	33.18	11.17	81.69
Minimum	38.62	105.91	19.05	1.42	41.09
S.D	28.45	31.96	6.59	3.58	17.01
t value : 2.605 significance: 0.060(significant at 0.10 level)					

TCS Ltd had higher growth rate of earnings per share of 28 per cent followed by sonata software and eclerx services ltd of 14 per cent.

There is significant difference between the companies in terms of earnings per share during the period of study as the 't' value was found to be significant at 0.10 per cent level.

Table 28 highlights the trend in earnings per share of select companies in Hotel industry during 2009-10 to 2014-15.

Table 28 Earnings per share of select companies in Hotel Industry(2009-10 to 2014-15)
[in Rs]

Sources: CMIE Database

Table 28 indicates the compound annual growth rate in earnings per share of Hotel Industry for a period of six years. The Earnings per share of EIH Ltd registered 30 per cent compound annual growth rate and it was at 20 per cent in Benares Hotels Ltd. Gujarat Hotels Ltd recorded 18 per cent of compound annual growth rate. The least position was secured by

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	29.00	1.46	38.54	6.61	5.66
2010-11	37.73	1.13	42.88	7.79	8.62
2011-12	47.63	2.14	11.41	8.04	5.09
2012-13	65.97	0.89	12.13	8.83	23.60
2013-14	69.08	1.66	5.20	8.64	12.51
2014-15	70.97	1.69	19.09	7.22	8.51
CAGR (%)	20.00	30.00	14.00	18.00	10.00
Mean	53.39	1.49	21.54	7.85	10.66
Maximum	70.97	2.14	42.88	8.83	23.60
Minimum	37.73	0.89	5.20	7.22	5.09
S.D	17.81	0.44	15.54	0.84	6.86
t value : 2.066 significance:0.108(insignificant)					

Mac Charles Ltd and Sinclairs Ltd at 14 per cent and 10 per cent respectively.

EIH Ltd had the highest compound annual growth rate of earnings per share at 30 per cent followed by Benares Hotels Ltd at 20 per cent.

There is no significant difference between the companies in terms of their earnings per share during the period of study.

Table 29 highlights the trend in earnings per share of select companies in Pharmaceutical Industry during 2009-10 to 2014-15.

Table 29 Earnings per share of select companies in Pharmaceutical Industry(2009-10 to 2014-15)
[in Rs]

Sources: CMIE Database

Table 29 reveals the compound annual growth rate in earnings per share of Pharmaceutical Industry for a period of six years. The Earnings per share of Alkem Lboratories Ltd registered a compound annual growth rate at 29 per cent and Unichem Laboratories Ltd it

Year	Ajanta Pharma Ltd	Novartis India Ltd	Unichem Laboratories Ltd	Alkem Laboratories Ltd	Amrutanjan Health Care Ltd
2009-10	24.37	36.29	37.05	199.11	38.98
2010-11	39.67	45.89	12.02	269.26	35.24
2011-12	56.79	47.56	9.13	361.15	43.48
2012-13	43.18	37.46	14.33	390.40	08.29
2013-14	62.83	30.83	19.53	368.17	09.94
2014-15	34.84	24.75	07.09	36.70	11.83
CAGR(%)	08.00	08.00	28.00	29.00	21.00
Mean	43.61	37.13	16.52	270.79	24.62
Maximum	62.83	47.56	19.53	390.40	43.48
Minimum	34.84	24.75	7.09	36.70	8.29
S.D	14.18	08.71	10.94	135.56	16.25
t value : 1.626 significance: 0.179(insignificant)					

was at 28 per cent followed by Amrutanjan Health Care Ltd at 21 per cent. Ajanta Pharma Ltd and Novartis India Ltd has least growth rate of 8 per cent during the period.

Alkem Laboratories Ltd had higher growth rate of earnings per share of 29 per cent followed by Unichem Laboratories Ltd at 28 per cent.

There is no significant difference between the companies in terms of their earnings per share during the period of study.

Table 30 highlights the trend in earnings per share of select companies in Cement industry during 2009-10 to 2014-15.

Table 30 Earnings per share of select companies in Cement Industry(2009-10 to 2014-15)
[in Rs]

Sources: CMIE Database

Table 30 has shown the compound annual growth rate in of earnings per share of Cement Industry over the period of six years. The compound annual growth rate in earnings per share of Mangalam Cements Ltd was at 32 per cent followed by Birla Corporation Ltd at 21 per cent respectively. Ramco cements Ltd recorded 9 per cent of compound annual growth

Year	OCL India Ltd	J.K.Cements Ltd	Birla Corporation Ltd	Mangalam Cements Ltd	Ramco Cements Ltd
2009-10	28.77	32.32	72.36	44.51	14.86
2010-11	20.12	09.16	41.54	14.33	08.87
2011-12	05.59	25.36	31.06	20.97	16.18
2012-13	27.48	33.40	35.04	28.98	16.96
2013-14	17.20	13.88	16.85	11.09	05.79
2014-15	19.98	22.44	22.78	06.71	10.18
CAGR(%)	07.00	08.00	21.00	32.00	09.00
Mean	19.85	22.76	36.61	21.09	12.14
Maximum	27.48	33.40	41.54	28.98	16.96
Minimum	5.59	9.16	16.85	6.71	5.79
S.D	08.34	09.74	19.58	13.87	04.51
t value : 5.662 significance:0.005(significant at 0.01 level)					

rate whereas J.K. Cements Ltd at 8 per cent and OCL India Ltd at 7 per cent respectively.

Mangalam Cements Ltd had highest growth rate of earnings per share of 32 per cent followed by Birla Corporation Ltd at 21 per cent.

There is significant difference between the companies in terms of their earnings per share during the period of study as the 't' value was found to be significant at 0.01 per cent level.

Table 31 highlights the trend in earnings per share of select companies in Chemical industry during 2009-10 to 2014-15.

Table 31 Earnings per share of select companies in Chemical Industry(2009-10 to 2014-15)

[in Rs]

Sources: CMIE Database

Table 28 indicates the compound annual growth rate in earnings per share of Chemical Industry over the period of six years. The Earnings per share of solar industries ltd registered a

Year	UPL Ltd	Vinati OrganicsLtd	Navin Fluorine International Ltd	Pidilite Industries Ltd	Solar Industries Ltd
2009-10	04.12	08.11	73.63	05.71	18.05
2010-11	03.41	10.53	73.46	06.00	29.03
2011-12	04.92	11.10	236.90	06.59	35.15
2012-13	04.70	13.91	44.22	08.99	41.89
2013-14	09.70	17.45	51.90	09.14	46.33
2014-15	10.81	22.44	50.55	09.79	59.63
CAGR(%)	22.00	23.00	08.00	12.00	27.00
Mean	06.27	13.92	88.44	07.70	38.34
Maximum	10.81	22.44	236.90	9.79	59.63
Minimum	3.41	10.53	44.22	6.00	29.03
S.D	03.14	05.25	73.77	01.79	14.41
t value : 1.997 significance: 0.117(insignificant)					

27 per cent compound annual growth rate and it was at 23 per cent in Vinati Organics Ltd. UPL Ltd recorded 22 per cent of compound annual growth rate. The least position was secured by Pidilite Industries Ltd and Navin Fluorine International Ltd of 12 per cent and 8 per cent respectively.

Solar Industries Ltd had highest growth rate of earnings per share at 27 per cent followed by Vinati Organics Ltd of 23 per cent.

There is no significant difference between the companies in terms of their earnings per share during the period of study.

Table 32 highlights the trend in earnings per share of select companies in Paper industry during 2009-10 to 2014-15.

Table 32 Earnings per share of select companies in Paper Industry(2009-10 to 2014-15)

[in Rs]

Sources: CMIE Database

Table 32 reveals the compound annual growth rate in earnings per share of Paper Industry for the period of six years. The Earnings per share of Rainbow papers Ltd registered

Year	Emami PapersLtd	Rainbow PapersLtd	South India Papers Ltd	Shree Ajit Pulp &Papers Ltd	Seshasayee PapersLtd
2009-10	01.16	13.55	18.36	13.43	35.49
2010-11	02.29	04.25	09.25	15.25	57.78
2011-12	01.37	03.59	10.26	14.35	30.31
2012-13	01.91	03.58	09.10	26.30	18.23
2013-14	02.67	02.43	02.59	22.73	21.24
2014-15	01.30	02.30	09.02	13.29	13.75
CAGR(%)	23.00	29.00	13.00	10.00	17.00
Mean	01.78	04.95	09.76	17.55	29.46
Maximum	2.67	13.55	18.36	26.30	57.78
Minimum	1.16	2.30	2.59	13.29	13.75
S.D	00.61	04.27	05.03	05.55	15.99
t value :2.560 significance:0.063(significant at 0.10 level)					

a 29 per cent compound annual growth rate and it was at 23 per cent in Emami Papers Ltd. Seshasayee papers Ltd recorded 17 per cent of compound annual growth rate. The least two position were secured by South India Papers Ltd of 13 per cent followed by Shree Ajit Pulp & Papers Ltd of 10 per cent.

Rainbow Papers Ltd had highest growth rate of earnings per share at 29 per cent followed by Emami Papers Ltd of 23 per cent.

There is significant difference between the companies in terms of their earnings per share during the period of study as the't' value was found to be significant at 0.10 per cent level.

DIVIDEND PER SHARE OF SELECT INDUSTRIES IN INDIA

The trend in dividend per share of six industries for six years ending 2014-15 is presented in tables 33 to 38.

Table 33 highlights the trend in dividend per share of select companies in IT-Software Industry during 2009-10 to 2014-15.**Table 33 Dividend per share of select companies in IT-Software Industry(2009-10 to 2014-15)**

[in Rs]
Sources: CMIE Database

Table 33 indicates the compound annual growth rate in dividend per share of IT-Software Industry over the period of six years. The highest compound annual growth rate of 33 per cent

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata SoftwareLtd	eClerx Ltd
2009-10	20.00	25.00	06.00	01.70	17.50
2010-11	14.00	60.00	06.00	02.00	22.50
2011-12	25.00	47.00	06.00	00.75	17.50
2012-13	22.00	42.00	07.00	01.75	25.00
2013-14	32.00	63.00	08.00	03.75	35.00
2014-15	79.00	59.50	12.00	07.00	35.00
CAGR(%)	32.00	19.00	15.00	33.00	15.00
Mean	32.00	49.41	07.50	02.82	25.41
Maximum	79.00	63.00	12.00	7.00	35.00
Minimum	14.00	25.00	6.00	0.75	17.50
S.D	23.77	14.52	02.34	02.26	07.97
t value : 2.770 significance:0.050(significant at 0.05 level)					

was noticed in dividend per share of Sonata Software Ltd followed by TCS Ltd at 32 per cent respectively. Infosys Ltd recorded 19 per cent of compound annual growth rate whereas Wipro Ltd and eClerx Ltd has least growth rate of 15 percent.

Sonata Software Ltd had highest compound annual growth rate of dividend per share of 33 per cent followed by TCS Ltd at 32 per cent.

There is significant difference between the companies in terms of their dividend per share during the period of study as the't' value was found to be significant at 0.05 per cent level.

Table 34 highlights the trend in dividend per share of select companies in Hotel industry during 2009-10 to 2014-15.

Table 34 Dividend per share of select companies in Hotel Industry(2009-10 to 2014-15)
[in Rs]

Sources: CMIE Database

Table 34 reveals the compound annual growth rate in dividend per share of Hotel

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	13.00	01.20	11.00	02.75	02.50
2010-11	13.00	00.90	12.00	03.00	03.50
2011-12	16.00	01.10	06.00	03.25	04.00
2012-13	20.00	00.90	06.00	03.50	18.00
2013-14	20.00	01.10	06.00	03.50	04.00
2014-15	20.00	01.10	08.00	03.50	04.00
CAGR(%)	09.00	17.00	06.00	05.00	10.00
Mean	17.00	01.05	08.16	03.25	06.00
Maximum	20.00	1.20	12.00	3.50	18.00
Minimum	13.00	0.90	6.00	2.75	2.50
S.D	03.46	00.12	02.71	00.31	05.91
t value : 2.575	significance: 0.062(significant at 0.10 level)				

Industry for the period of six years. The dividend per share of EIH Ltd registered 17 per cent of compound annual growth rate and it was 10 per cent in Sinclairs Hotel Ltd followed by 9 per cent of compound annual growth rate in Benares Hotels Ltd. Mac Charles India Ltd and Gujarat Hotels Ltd has least growth rate of 6 per cent and 5 per cent respectively.

EIH Ltd had highest growth rate of dividend per share of 17 per cent followed by Sinclairs Hotels Ltd of 10 per cent.

There is significant difference between the companies in terms of their dividend per share during the period of study as the't' value was found to be significant at 0.10 per cent level.

Table 35 highlights the trend in dividend per share of select companies in Pharmaceutical industry during 2009-10 to 2014-15.

Table 35 Dividend per share of select companies in Pharmaceutical Industry(2009-10 to 2014-15
[in Rs]
 Sources: CMIE Database

Year	Ajanta PharmaLtd	Novartis India Ltd	Unichem LaboratoriesLtd	Alkem Laboratories Ltd	Amrutanjan HealthcareLtd
2009-10	03.50	10.00	10.00	12.50	15.00
2010-11	05.00	10.00	04.00	15.00	15.00
2011-12	07.50	10.00	03.00	20.00	15.00
2012-13	06.25	10.00	04.50	20.00	03.00
2013-14	10.00	10.00	08.00	20.00	03.20
2014-15	06.00	10.00	02.00	04.00	03.50
CAGR(%)	11.00	00.00	03.00	20.00	25.00
Mean	06.37	10.00	05.25	15.25	09.11
Maximum	10.00	10.00	10.00	20.00	15.00
Minimum	3.50	10.00	2.00	4.00	3.00
S.D	02.22	00.00	03.09	06.35	06.44
t value : 5.272 significance: 0.006(significant at 0.01 level)					

Table 35 has shown the compound annual growth rate in dividend per share of Pharmaceutical Industry over the period of six years. The compound annual growth rate of Amrutanjan Health care Ltd was at 25 per cent followed by Alkem lab at 20 per cent . Ajanta Pharma Ltd recorded 11 per cent of compound annual growth rate whereas Unichem lab Ltd of at per cent. Novartis India has not shown any growth rate during the period.

Amrutanjan Health Care Ltd had highest compound annual growth rate of dividend per share of 25 percent followed by Alkem Laboratories Ltd of 20 per cent.

There is significant difference between the companies in terms of theirdividend per share during the period of study as the't' value was found to be significant at 0.01 per cent level.

Table 36 highlights the trend in dividend per share of select companies in Cement industry during 2009-10 to 2014-15.

Table 36 Dividend per share of select companies in Cement Industry(2009-10 to 2014-15)
[in Rs]

Year	OCL India Ltd	J.K. Cements Ltd	Birla CorporationLtd	Mangalam CementLtd	Ramco CementsLtd
2009-10	04.00	06.00	06.00	06.00	02.00
2010-11	04.00	02.00	06.00	06.00	01.25
2011-12	02.00	05.00	06.00	06.00	02.50
2012-13	04.00	06.50	07.00	06.00	03.00
2013-14	04.00	03.00	06.00	03.00	01.00
2014-15	04.00	04.00	06.00	02.00	01.50
CAGR(%)	00.00	08.00	00.00	19.00	06.00
Mean	03.67	04.41	06.16	04.83	01.87
Maximum	4.00	6.50	7.00	6.00	3.00
Minimum	2.00	2.00	6.00	2.00	1.00
S.D	00.81	01.74	00.40	01.83	00.77
t value :5.925 significance:0.004(significant at 0.01 level)					

Sources: CMIE Database

Table 36 reveals the compound annual growth rate in dividend per share of Cement Industry over the period of six years. The dividend per share of Mangalam cements Ltd registered 19 per cent of compound annual growth rate and it was 8 per cent in J.K. Cements Ltd followed by 6 per cent of compound annual growth rate in Ramco Cements Ltd.OCL India and Birla Corporation has not shown any growth rate during the period.

Mangalam Cement Ltd had highest compound annual growth rate of dividend per share of 19 per cent followed by J.K Cements Ltd of 8 per cent.

There is significant difference between the companies in terms of their dividend per share during the period of study as the 't' value was found to be significant at 0.01 per cent level.

Table 37 highlights the trend in dividend per share of select companies in Chemical industry during 2009-10 to 2014-15.

Table 37 Dividend per share of select companies in Chemical Industry(2009-10 to 2014-15)

[in Rs]

Year	UPL Ltd	Vinati Organics Ltd	Navin Fluorine International Ltd	Pidilite Industries Ltd	Solar Industries Ltd
2009-10	02.00	01.00	14.00	01.50	08.00
2010-11	02.00	01.30	15.00	01.75	08.00
2011-12	02.50	02.00	75.00	01.90	10.00
2012-13	02.50	02.50	15.00	02.60	11.00
2013-14	04.00	03.00	16.00	02.70	12.00
2014-15	05.00	03.50	16.00	02.90	17.00
CAGR(%)	21.00	28.00	27.00	14.00	16.00
Mean	03.00	02.21	25.16	02.22	11.00
Maximum	5.00	3.50	75.00	2.90	17.00
Minimum	2.00	1.00	14.00	1.50	8.00
S.D	01.22	00.97	24.42	00.57	03.34
t value : 1.967 significance: 0.121(insignificant)					

Sources: CMIE Database

Table 37 indicates the compound annual growth rate in dividend per share of Chemical Industry over the period of six years. The highest compound annual growth rate in Dividend per share at 28 per cent in Vinati Organics Ltd followed by Navin Fluorine International Ltd of 27 per cent . UPL Ltd recorded 21 per cent of compound annual growth rate whereas Solar Industries Ltd and Pidilite Industries Ltd has least growth rate of 16 percent and 14 per cent during the period.

Vinati Organics Ltd had highest compound annual growth rate of dividend per share of 28 per cent followed by Navin Fluorine International Ltd at 27 per cent.

There is no significant difference between the companies in terms of their dividend per share during the period of study.

Table 38 highlights the trend in dividend per share of select companies in Paper industry during 2009-10 to 2014-15.

Table 38 Dividend per share of select companies in Paper Industry(2009-10 to 2014-15)
[in Rs]

Year	Emami Papers Ltd	Rainbow Papers Ltd	South India Papers Ltd	Shree Ajit Pulp &Papers Ltd	Seshasayee Papers Ltd
2009-10	0.60	2.00	3.00	0.25	6.00
2010-11	0.60	0.40	2.00	0.25	5.00
2011-12	0.60	0.40	2.20	0.25	5.00
2012-13	0.60	0.40	2.20	0.50	4.00
2013-14	0.60	0.40	1.50	0.50	4.00
2014-15	0.60	0.20	2.50	0.50	4.00
CAGR(%)	0.00	4.00	3.00	15.00	7.00
Mean	0.60	0.63	2.23	0.37	4.66
Maximum	0.60	2.00	3.00	0.50	6.00
Minimum	0.60	0.20	1.50	0.25	4.00
S.D	0.00	0.67	0.51	0.13	0.81
t value : 2.093 significance: 0.105(insignificant)					

Sources: CMIE Database

Table 38 has shown the compound annual growth rate in dividend per share of Paper Industry over the period of six years. The highest compound annual growth rate of 15 per cent was noticed in dividend per share of Shree Ajit pulp & papers Ltd followed by Seshasayee papers Ltd at 7 per cent respectively. Rainbow papers Ltd recorded 4 per cent of compound annual growth rate whereas South India papers Ltd at 3 per cent. Emami papers Ltd has not shown any growth rate during the period.

Shree Ajit pulp & papers Ltd had highest compound annual growth rate of dividend per share of 15 per cent followed by Seshasayee Papers Ltd at 7 per cent.

There is no significant difference between the companies in terms of their dividend per shareduring the period of study.

Dividend per share of select companies in the 6 select industries is presented in Exhibits 1 to 6.

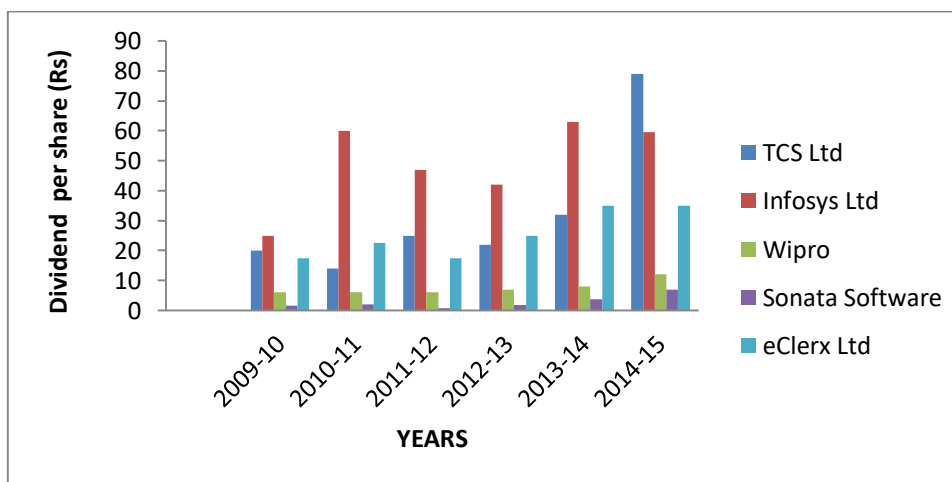**Dividend per share of select companies in IT-Software Industry**

Exhibit 1

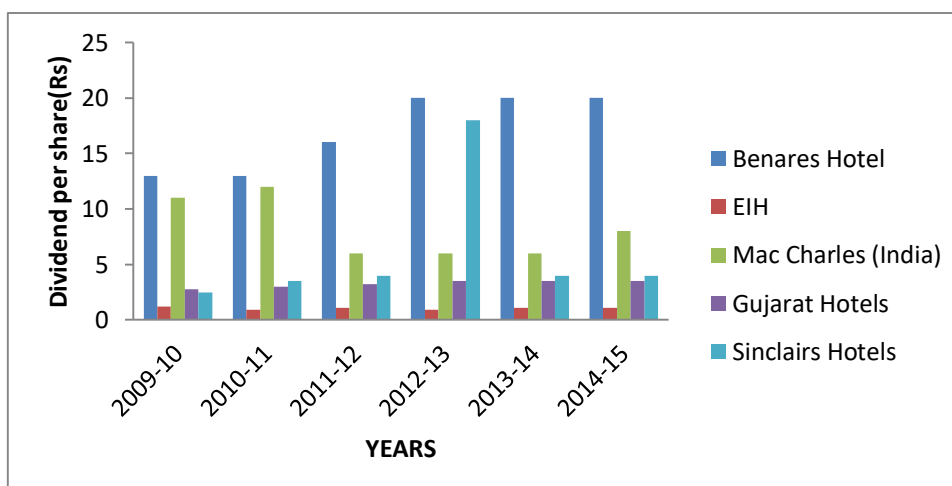**Dividend per share of select companies in Hotel Industry**

Exhibit 2

Dividend per share of select companies in Pharmaceutical Industry
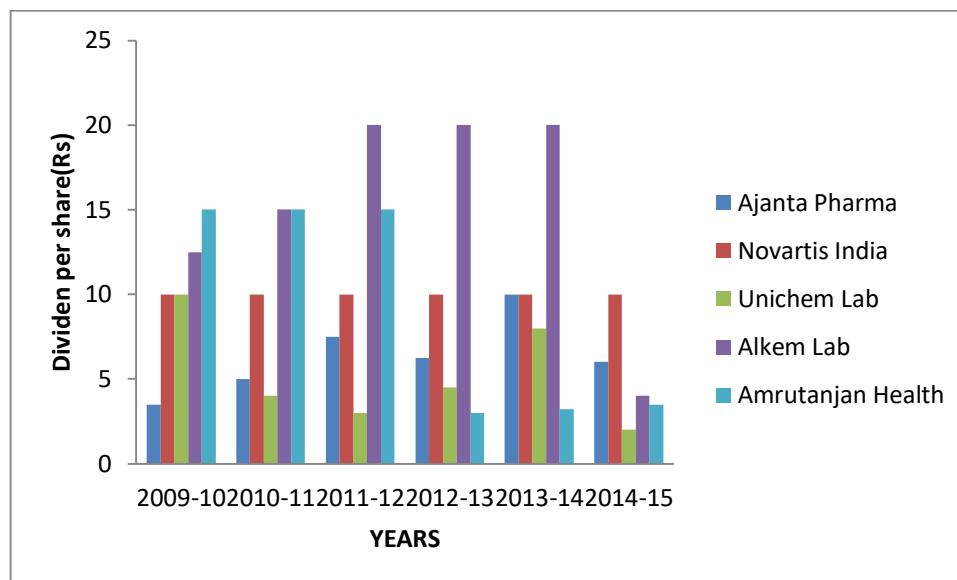

Exhibit 3

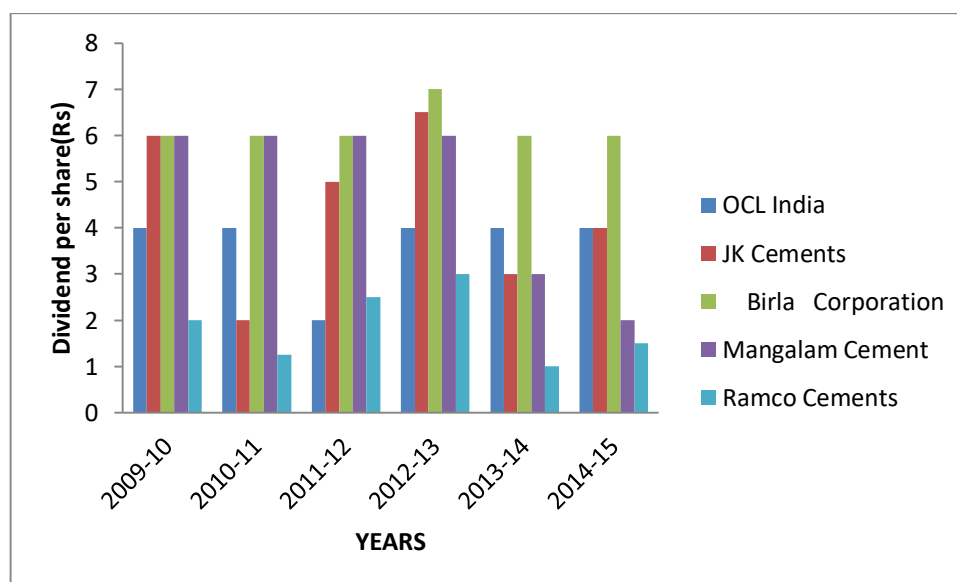**Dividend per share of select companies in Cement Industry**

Exhibit 4

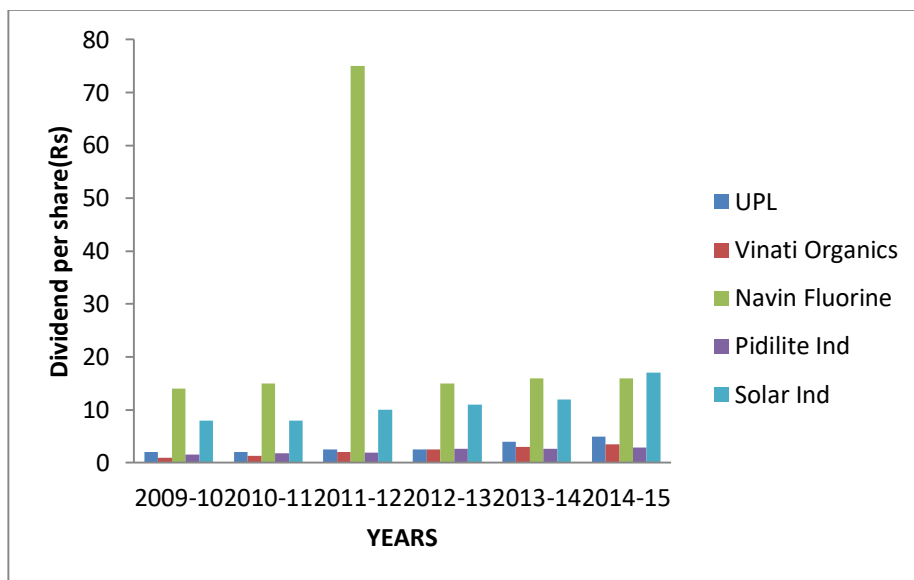**Dividend per share of select companies in Chemical Industry**

Exhibit 5

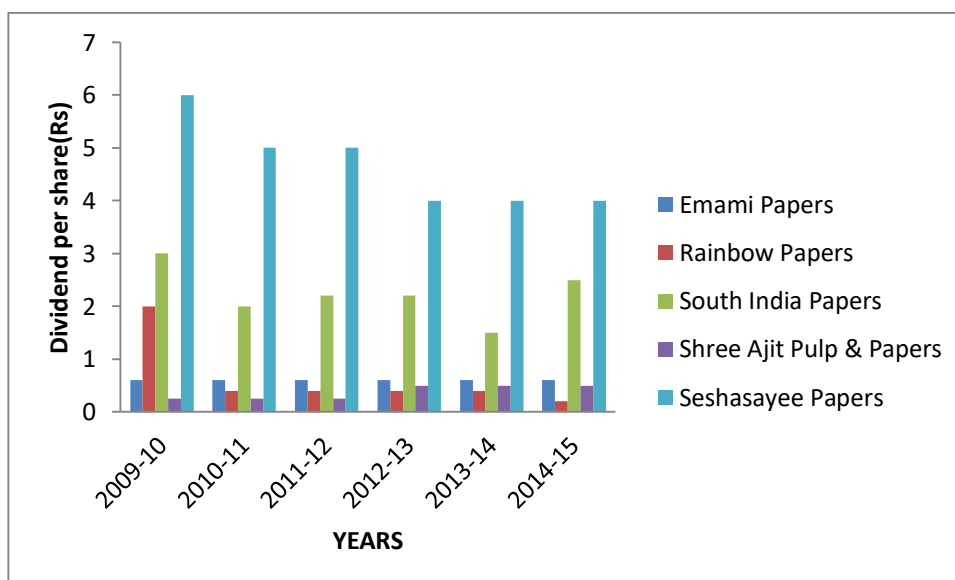**Dividend per share of select companies in Paper Industry**

Exhibit 6

DIVIDEND PAYOUT RATIO OF SELECT INDUSTRIES IN INDIA

The trend in dividend payout ratio of six industries for six years ending 2014-15 is presented in tables 39 to 44.

Table 39 highlights the trend in dividend payout ratio of select companies in IT-Software Industry during 2009-10 to 2014-15.

Table 39 Dividend payout ratio of select companies in IT-Software Industry (2009-10 to 2014-15) [in %]

Year	TCS Ltd	Infosys Ltd	Wipro Ltd	Sonata SoftwareLtd	eClerx Ltd
2009-10	81.64	28.84	20.60	34.70	53.68
2010-11	42.29	62.28	34.95	39.57	63.63
2011-12	52.04	37.03	36.59	61.50	37.56
2012-13	39.39	30.87	35.64	136.35	56.04
2013-14	38.34	41.52	31.25	84.88	50.12
2014-15	93.81	50.51	43.40	74.10	59.53
CAGR(%)	29.00	12.00	17.00	16.00	20.00
Mean	57.91	41.84	33.73	71.85	53.42
Maximum	93.81	62.28	43.40	136.35	63.63
Minimum	38.34	28.84	20.60	34.70	37.56
S.D	23.91	12.69	07.55	37.05	09.06
t value : 7.857 significance: 0.001(significant at 0.01 level)					

Sources: CMIE Database

Table 39 indicates the compound annual growth rate in dividend payout ratio of IT-Software Industry over the period of six years. The highest compound annual growth rate 29 per cent was recorded by TCS Ltd followed by eClerx Ltd at 20 per cent. Wipro Ltd and Sonata Software Ltd recorded compound annual growth rate of 17 per cent and 16 per cent respectively during the period. Infosys Ltd had lesser compound annual growth rate of 12 per cent.

TCS Ltd had highest growth rate of dividend payout ratio of 29 per cent followed by eClerx services Ltd at 20 per cent.

There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the 't' value was found to be significant at 0.01 per cent level.

Table 40 highlights the trend in dividend payout of select companies in Hotel industry during 2009-10 to 2014-15.

Table: 40 Dividend payout ratio of select companies in Hotel Industry(2009-10 to 2014-15)
[in %]

Sources: CMIE Database

Year	Benares Hotels Ltd	EIH Ltd	Mac Charles (India) Ltd	Gujarat Hotels Ltd	Sinclairs Hotels Ltd
2009-10	52.25	95.70	33.38	48.80	51.89
2010-11	40.20	90.76	32.53	45.08	47.22
2011-12	39.09	58.86	60.91	47.03	91.26
2012-13	35.43	114.18	57.89	46.70	88.61
2013-14	33.85	73.00	135.09	47.70	37.44
2014-15	33.91	74.02	50.29	58.60	56.54
CAGR(%)	09.00	06.00	09.00	04.00	02.00
Mean	39.12	84.42	61.68	48.98	62.16
Maximum	52.25	114.18	135.09	58.60	91.26
Minimum	33.85	58.86	32.53	45.08	37.44
S.D	06.95	19.72	37.90	04.86	22.43
t value :7.788 significance:0.001(significant at 0.01 level)					

Table 40 reveals the compound annual growth rate in dividend payout ratio of Hotel Industry over the period of six years. Benares Hotels Ltd and Mac Charles India Ltd recorded 9 per cent of compound annual growth rate in dividend payout ratio followed by EIH Ltd at 6 per cent. The least two position of compound were secured by Gujarat Hotels Ltd of 4 per cent and Sinclairs Ltd of 2 per cent.

Benares Hotels Ltd and Mac Charles India Ltd had highest compound annual growth rate of dividend payout ratio of 9 per cent followed by EIH Ltd at 6 per cent.

There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the 't' value was found to be significant at 0.01 per cent level.

Table 41 highlights the trend in dividend payout ratio of select companies in Pharmaceutical Industry during 2009-10 to 2014-15.

Table: 41 Dividend payout ratio of select companies in Pharmaceutical Industry(2009-10 to 2014-15)

[in %]

Sources: CMIE Database

Year	Ajanta Pharma Ltd	Novartis India Ltd	Unichem LaboratoriesLtd	Alkem LaboratoriesLtd	Amrutanjan HealthcareLtd
2009-10	16.74	32.13	31.43	07.34	45.04
2010-11	14.63	25.32	38.70	06.49	48.40
2011-12	15.34	24.43	38.23	06.43	40.04
2012-13	16.97	31.22	36.75	05.95	42.16
2013-14	18.63	37.94	47.93	06.35	37.67
2014-15	19.09	48.62	33.92	12.91	35.51
CAGR(%)	27.00	09.00	15.00	12.00	05.00
Mean	16.90	33.27	37.82	07.57	41.47
Maximum	19.09	48.62	47.93	12.91	48.40
Minimum	14.63	24.43	31.43	5.95	35.51
S.D	01.75	08.99	05.66	02.65	04.75
t value : 4.218 significance: 0.014(significant at 0.05 level)					

Table 41 has shown the compound annual growth ratein dividend payout ratio of Pharmaceutical Industry for the period of six years. The highest compound annual growth rate of 27 per cent was noticed in dividend payout ratio of Ajanta pharma Ltd followed by Unichem Lab Ltd at 15 per cent respectively. Alkem Lab Ltd recorded 12 per cent of compound annual growth rate whereas Novartis India and Amrutanjan Health had shown least growth rate of 9 per cent and 5 per cent respectively.

Ajanta Pharma Ltd had highest compound annual growth rate of dividend payout ratio of 27 per cent followed by Unichem Laboratories Ltd of 15 per cent.

There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.05 per cent level.

Table 42 highlights the trend in dividend payout ratio of select companies in Cement industry during 2009-10 to 2014-15.

Table: 42 Dividend payout ratio of select companies in Cement Industry(2009-10 to 2014-15)

[in %]

Year	OCL India Ltd	J.K.Cements Ltd	Birla Corporation Ltd	Mangalam Cement Ltd	Ramco Cements Ltd
2009-10	16.21	21.68	09.68	15.61	15.75
2010-11	23.10	25.38	16.80	48.69	16.40
2011-12	41.59	22.91	22.44	33.25	17.97
2012-13	16.95	22.76	23.31	24.22	20.62
2013-14	27.20	25.30	41.65	31.64	20.24
2014-15	24.09	21.45	31.69	35.88	17.75
CAGR(%)	08.00	02.00	26.00	18.00	24.00
Mean	24.85	23.24	24.26	31.54	18.12
Maximum	41.59	25.38	41.65	48.69	20.62
Minimum	16.21	21.45	9.68	15.61	15.75
S.D	09.23	01.72	11.22	11.16	01.97
t value : 11.378 significance: 0.000(significant at 0.01 level)					

Sources: CMIE Database

Table 42 reveals the compound annual growth rate in dividend payout ratio of Cement Industry over the period of six years. The dividend payout ratio of Birla corporation Ltd registered 26 per cent compound annual growth rate followed by Ramco cements at 24 per cent . Mangalam Cement had recorded 18 per cent of compound annual growth rate. The least two position were secured by OCL India and J.K.Cements of 8 per cent and 2 per cent during the period.

Birla Corporation Ltd had highest compound annual growth rate of dividend payout ratio of 26 per cent followed by Ramco Cements Ltd at 24 per cent.

There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.01 per cent level.

Table 43 highlights the trend in dividend payout ratio of select companies in Chemical industry during 2009-10 to 2014-15.

Table 43 Dividend payout ratio of select companies in Chemical Industry(2009-10 to 2014-15)

[in %]

Sources: CMIE Database

Year	UPL Ltd	Vinati Organics Ltd	Navin Fluorine International Ltd	Pidilite Industries Ltd	Solar Industries Ltd
2009-10	56.54	14.41	22.24	30.16	45.37
2010-11	68.33	14.35	24.10	33.87	29.92
2011-12	59.09	20.92	36.79	33.53	30.82
2012-13	62.08	21.03	39.55	33.84	28.83
2013-14	48.24	20.11	36.06	34.55	28.49
2014-15	55.72	18.77	38.05	35.65	31.58
CAGR(%)	02.00	06.00	11.00	04.00	06.00
Mean	58.33	18.26	32.79	33.60	32.50
Maximum	68.33	21.03	39.55	35.65	45.37
Minimum	48.24	14.35	22.24	30.16	28.49
S.D	06.72	03.11	07.57	01.84	06.41

t value : 5.423   significance:0.006(significant at 0.01 level)

Table 43 shows the compound annual growth rate in dividend payout ratio of Chemical Industry over the period of six years. The highest compound annual growth rate 0f 11 per cent was recorded by Navin Fluorine Ltdfollowed by Vinati Organics Ltd and Solar Industries Ltd of 6 per cent respectively. The least two position were secured by Pidilite Industries Ltd of 4 per cent and UPL Ltd of 2 per cent.

Navin Fluorine Ltd had highest compound annual growth rate of dividend payout ratio of 11 per cent followed by Vinati Organics Ltd and Solar Industries Ltd at 6 per cent.

There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.01 per cent level.

Table 44 highlights the trend in dividend payout ratio of select companies in Paper industry during 2009-10 to 2014-15.

Table 44 Dividend payout ratio of select companies in Paper Industry(2009-10 to 2014-15)
[in %]

Sources: CMIE Database

Table 44 indicates the compound annual growth rate in dividend payout ratio of Paper

Year	Emami Papers Ltd	Rainbow Papers Ltd	South India Papers Ltd	Shree Ajit Pulp &Papers Ltd	Seshasayee Papers Ltd
2009-10	60.80	17.22	19.02	02.07	19.70
2010-11	30.49	10.94	25.23	01.82	10.06
2011-12	50.78	12.94	24.93	01.95	19.17
2012-13	36.96	13.17	28.27	02.27	28.81
2013-14	38.15	19.25	67.60	02.62	22.06
2014-15	78.22	10.43	33.33	04.49	35.04
CAGR(%)	06.00	09.00	11.00	16.00	12.00
Mean	49.23	13.99	33.06	02.53	22.47
Maximum	78.22	19.25	67.60	4.49	35.04
Minimum	30.49	10.43	19.02	1.82	10.06
S.D	17.89	03.51	17.55	00.99	08.61
t value :3.030 significance:0.039(significant at 0.05 level)					

Industry over the period of six years. The dividend payout ratio of Shree Ajit pulp & papers Ltd registered 16 per cent of compound annual growth rate followed by Seshasayee papers Ltd at 12 per cent . South India Papers Ltd had recorded 11 per cent of compound annual growth rate. The least two position was secured by Rainbow papers ltd and Emami Papers Ltd of 9 per cent and 6 per cent during the period.

Shree Ajit Pulp & Papers Ltd had highest compound annual growth rate of dividend payout ratio 16 per cent followed by Seshasayee papers Ltd at 12 per cent.

There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the 't' value was found to be significant at 0.05 per cent level.

Dividend payout ratio of select companies in the 6 select industries is presented in Exhibits 7 to 12.

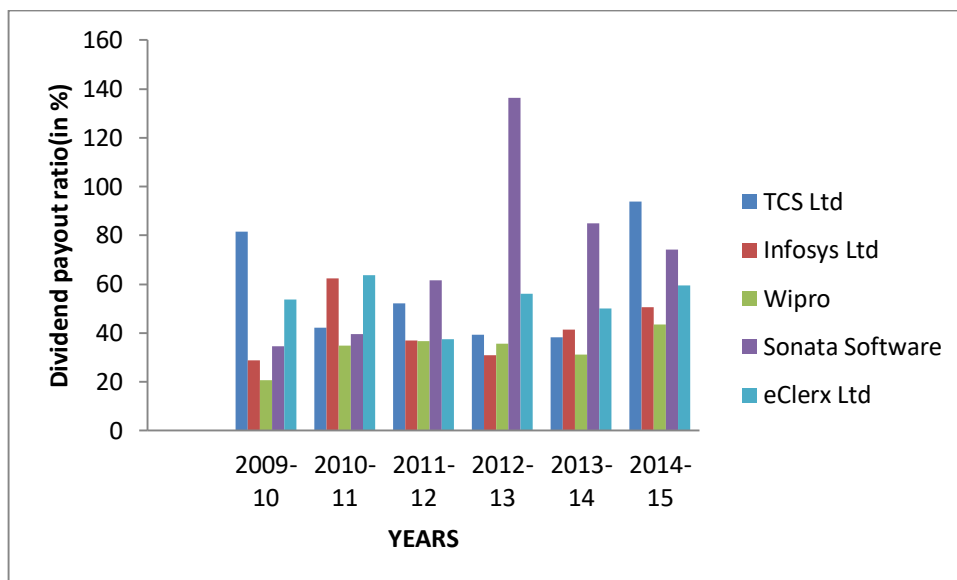**Dividend payout ratio of select companies in IT-Software Industry**

Exhibit 7

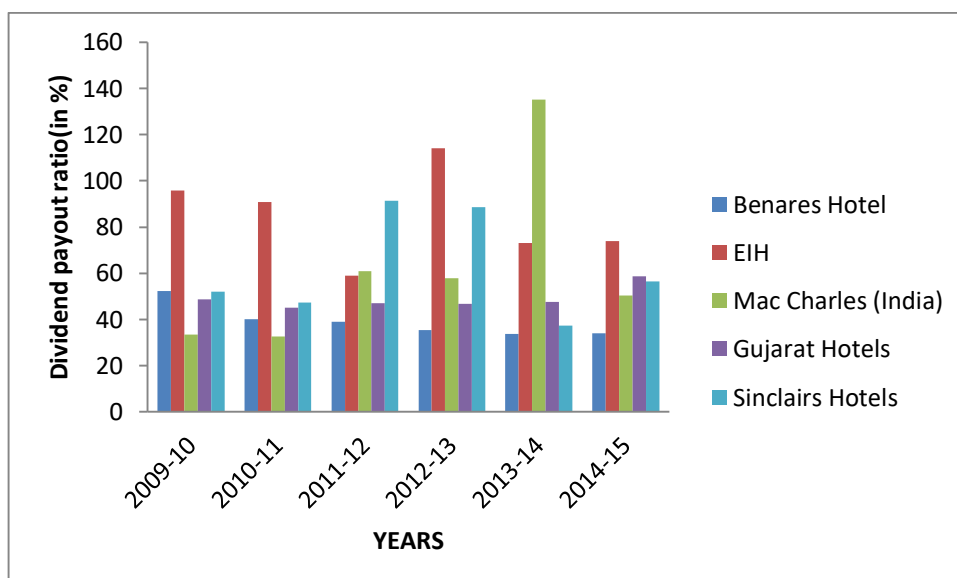**Dividend payout ratio of select companies in Hotel Industry**

Exhibit 8

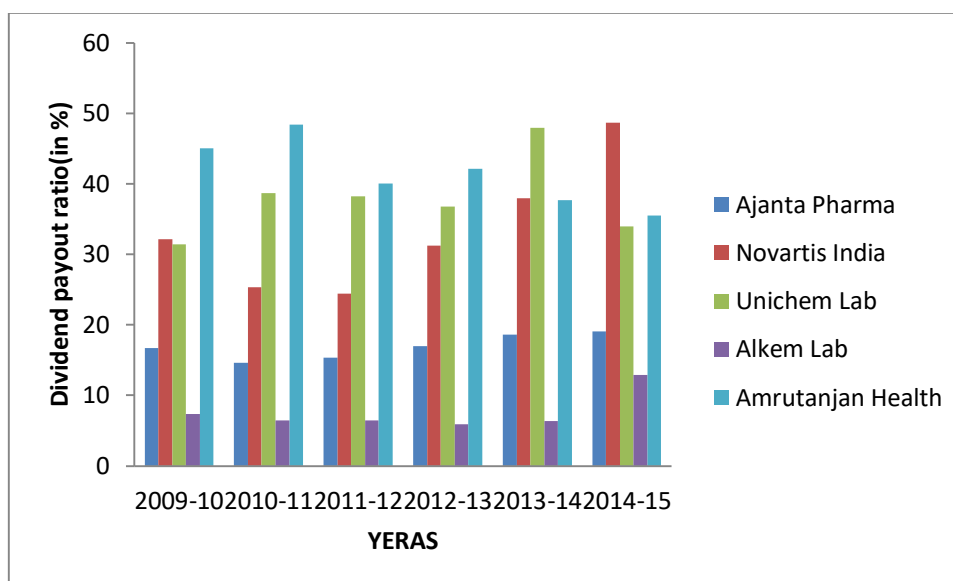**Dividend payout ratio of select companies in Pharmaceutical Industry**

Exhibit 9

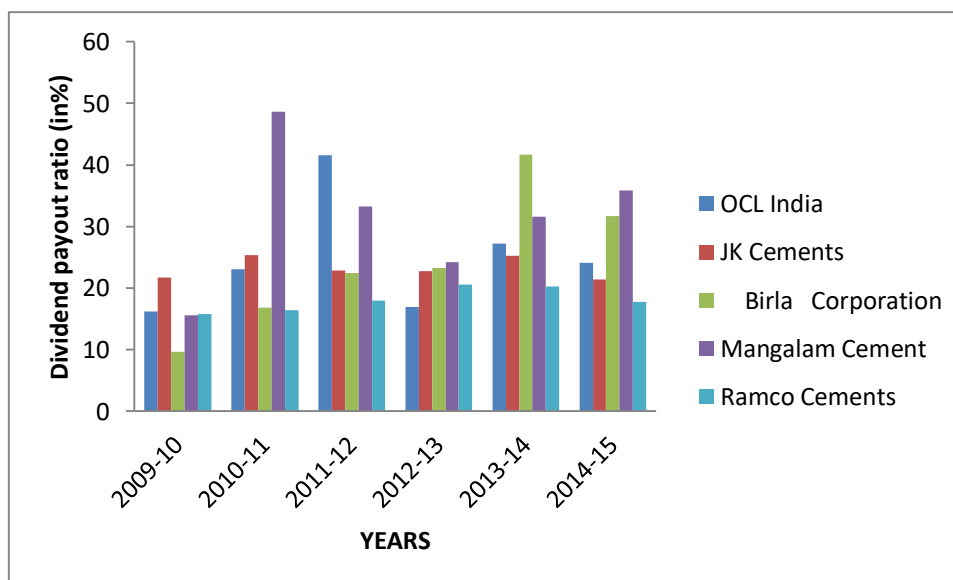**Dividend payout ratio of select companies in Cement Industry**

Exhibit 10

Dividend payout ratio of select companies in Chemical Industry
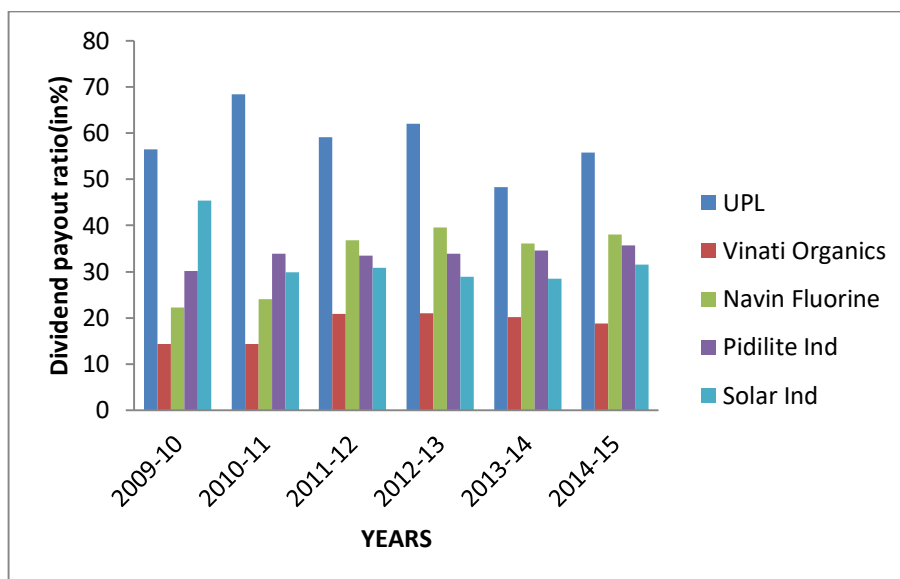
Exhibit 11

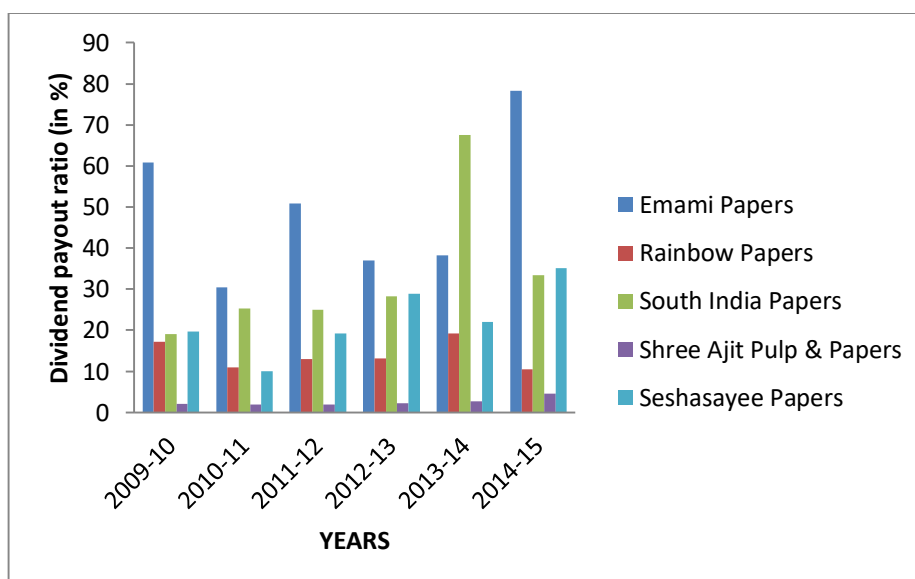**Dividend payout ratio of select companies in Paper Industry**

Exhibit 12

Determinants of dividend policy for each of the select industries

Studies review concentrated mainly on dividend payment behaviour of corporate. Base on the literature review the following factors have been identified as independent variables affecting dividend decision of firm.

- Earnings per share
- Return on assets
- Return on equity
- Debt-equity ratio
- Current ratio
- Tangibility
- Cash flows per share

Table 45 Variables definition and predicted relationship with Dividend payout ratio

Variables	Definitions	Predicted sign
Earnings per share	Netprofit after tax / Number of Equity Shares	+/-
Return on assets	Net income/Total asset	+/-
Return on equity	Net income/shareholder's equity	+/-
Debt-equity ratio	Long term debt/shareholders fund	+/-
Current ratio	Current assets/current liabilities	+/-
Tangibility ratio	Fixed asset/ Total asset	+/-
Cash flows per share	Cash flows from operation/ No. Outstanding shares	+/-

Descriptive statistics of select industries

In respect of the six industry selected the descriptive statistics relating to dependent variable dividend payout ratio and seven independent variables are presented in tables 46 to 51.

Table 46 Descriptive Statistics of IT Software Industry

Table 46 presents the descriptive statistics for the variables to examine the dividend policy of select companies in IT-Software Industry. Average dividend payout

	N	Minimum	Maximum	Mean	Standard Deviation
Dividend payout ratio(in %)	5	43.89	64.27	51.75	08.29
Earnings per share (in Rs.)	5	43.50	77.86	57.06	13.57
Return on assets (in %)	5	19.37	23.42	22.06	01.49
Return on equity(in %)	5	26.20	31.65	29.76	02.06
Debt equity(in proportion)	5	0.03:1	0.06:1	0.04:1	0.02:1
Current ratio(in times)	5	02.84	03.52	03.15	00.23
Tangibility ratio(in %)	5	09.44	13.25	11.40	01.71
Cash flows per share(in Rs.)	5	09.92	25.45	17.46	06.46

ratio of the industry for the six years ending 2014-15 was at 51.75 per cent and earnings per share stood at Rs 57.06.Average return on assets was at 22.06 per cent while the return on equityshowed an average of 29.76 per cent. The average debt equity ratio for the period was 0.04:1. The average current ratio was 3.15 times whereas and the average tangibility ratio was 11.40 per cent. The mean cash flows per share of the industry was at Rs 17.46.

Table 47 Descriptive Statistics of Hotel Industry

Table 47 presents the descriptive statistics for the variables to examine the dividend policy of select companies in Hotel Industry. Average dividend payout ratio of the industry for six years ending 2014-15 was at 59.27 per centand average earnings per share stood at

	N	Minimum	Maximum	Mean	Standard Deviation
Dividend payout ratio(in %)	5	51.15	68.56	59.27	06.62
Earnings per share (in Rs.)	5	14.86	22.28	18.98	02.91
Return on assets(in %)	5	08.41	11.39	09.41	01.11
Return on equity(in %)	5	10.73	13.82	11.72	01.15
Debt equity(in proportion)	5	0.01:1	0.22:1	0.06:1	0.08:1
Current ratio(in times)	5	02.83	08.20	04.11	02.15
Tangibility ratio(in %)	5	43.94	51.13	46.78	02.79
Cash flows per share(in Rs.)	5	01.63	03.22	02.32	00.53

Rs 18.98. Average Return on assets was at 09.41 per cent while the Return on equityshowed an average of 11.72 per cent. The average debt equity ratio for the period was 0.06:1. The average current ratio was 04.11 times and the average tangibility ratio was 46.78 per cent. The mean cash flows per share of the industry was at of Rs 2.32.

Table 48 Descriptive Statistics of Cement Industry

	N	Minimum	Maximum	Mean	Standard Deviation
Dividend payout ratio(in %)	5	21.57	29.21	24.41	04.93
Earnings per share (in Rs.)	5	12.96	28.37	22.48	09.39
Return on assets (in %)	5	02.61	11.77	05.71	03.32
Return on equity (in %)	5	06.33	25.31	12.91	06.81
Debt equity(in proportion)	5	0.62:1	0.89:1	0.73:1	0.11:1
Current ratio(in times)	5	01.48	01.95	01.66	00.15
Tangibility ratio (in %)	5	56.97	60.84	59.26	01.54
Cash flows per share (in Rs.)	5	10.27	17.81	13.97	02.56

Table 48 presents the descriptive statistics for the variables to examine the dividend policy of select companies in Cement Industry. Average dividend payout ratio of the industry for the six years ending 2014-15 was at 24.41 per cent and average earnings per share stood at Rs 22.48. Average return on assets was at 05.71 per cent while the Return on equity showed an average of 12.91 per cent. The average debt equity ratio for the period was 0.73:1. The average current ratio was 01.66 times and the average tangibility ratio was 59.26 per cent. The mean cash flows per share of the industry was at Rs 13.97.

Table 49 Descriptive Statistics of Pharmaceutical Industry

	N	Minimum	Maximum	Mean	Standard Deviation
Dividend payout ratio(in %)	5	24.89	30.01	27.40	02.01
Earnings per share (in Rs.)	5	23.04	103.62	78.53	30.05
Return on assets(in %)	5	11.24	14.02	12.21	01.01
Return on equity(in %)	5	16.85	20.42	18.28	01.16
Debt equity(in proportion)	5	0.08:1	0.28:1	0.19:1	0.8:1
Current ratio(in times)	5	02.09	02.94	02.52	00.38
Tangibility ratio(in %)	5	23.01	26.99	24.83	01.66
Cash flows per share(in Rs.)	5	06.61	08.73	07.56	00.83

Table 49 gives a descriptive statistics of the variables explaining the dividend policy of select companies in Pharmaceutical Industry. Average dividend payout ratio of the industry for the six years ending 2014-15 was at 27.40 per cent and average earnings per share was stood at Rs 78.53. Average return on assets was at 12.21 per cent while the Return on equityshowed an average of 18.28 per cent. The average debt equity ratio for the period was 0.19:1. The average current ratio was 2.52 times and the average tangibility ratio was 24.83 per cent. The mean cash flows per share of the industry was at of Rs 7.56

Table 50 Descriptive Statistics of Chemical Industry

	N	Minimum	Maximum	Mean	Std. Deviation
Dividend payout ratio(in %)	5	33.49	37.06	35.09	01.51
Earnings per share (in Rs.)	5	22.74	58.93	30.93	14.07
Return on assets(in %)	5	10.06	14.34	12.12	01.49
Return on equity(in %)	5	17.77	26.09	21.23	03.68
Debt equity(in proportion)	5	0.15:1	0.56:1	0.38:1	0.14:1
Current ratio(in times)	5	01.25	02.12	01.71	00.31
Tangibility ratio(in %)	5	34.87	40.85	37.46	02.20
Cash flows per share(in Rs.)	5	04.24	09.01	06.57	01.79

Table 50 presents the descriptive statistics for the variables to examine the dividend policy of select companies in Chemical Industry. Average dividend payout ratio of the industry for the six years ending 2014-15 was at 35.09 per centand average earnings per share was stood at Rs 30.93. Average return on assets was at 12.12 per cent while the return on equityshowed an average of 21.23 per cent. The average debt equity ratio for the period was 0.38:1. The average current ratio was 01.71 times and the average tangibility ratio was 37.46 per cent. The mean cash flows per share of the industry indicates an average of Rs 6.57

Table 51 Descriptive Statistics of Paper Industry

	N	Minimum	Maximum	Mean	Standard Deviation
Dividend payout ratio(in %)	5	15.71	32.31	24.25	06.02
Earnings per share (in Rs.)	5	07.93	17.76	12.70	03.71
Return on assets(in %)	5	03.39	06.92	05.15	01.46
Return on equity(in %)	5	06.93	17.70	12.14	04.32
Debt equity(in proportion)	5	0.92:1	1.49:1	1.09:1	0.21:1
Current ratio(in times)	5	01.09	01.63	01.22	00.21
Tangibility ratio(in %)	5	59.77	64.32	62.60	01.54
Cash flows per share(in Rs.)	5	02.81	06.83	04.44	01.42

Table 51 presents the descriptive statistics for the variables to examine the dividend policy of select companies in Paper Industry. Average dividend payout ratio of the industry for the six years ending 2014-15 was at 24.25 per cent and average earnings per share stood at Rs 12.70.Average return on assets was 05.15 per cent while the Return on equityshowed an average of 12.14 per cent. The average debt equity ratio for the period was 01.09:1. The average current ratio was 01.22 times and the average tangibility ratio was 62.70 per cent. The mean cash flows per share of the industry indicates an average of Rs 4.44.

➢ **Multiple Correlation between dependent and independent variables of select Industries**

The variables considered for the analysis include dependent variable dividend payout ratio and independent variables namely Earnings per share, return on assets, return on equity, debt equity, current ratio, tangibility ratio and cash flows per share. The results of multiple correlations in respect of the select industries are presented in Tables 52 to 57.

Table 52 Multiple Correlation of select variables for IT-Software Industry

Variables	Dividend payout Ratio	Earnings Per Share	Return on assets	Return on equity	Debt equity ratio	Current ratio	Tangibility ratio	Cash flows pershare
DividendPayoutratio	1							
Earnings per share	-.242	1						
Return on assets	-.147	.361	1					
Return on equity	-.127	.179	.726**	1				
Debtequity	-.310	-.342	-.479**	-.214	1			
Currentratio	-.015	.374*	-.105	-.280	-.544**	1		
Tangibilityratio	-.352	.417*	.286	.446*	.056	-.109	1	
Cashflows pershare	.029	.455*	.374*	.419*	-.153	-.110	.629**	1

**. Correlation is significant at the 0.01 level (2-tailed).
  *. Correlation is significant at the 0.05 level (2-tailed).

Table 52 presents the results of multiple correlation between dependent and select independent variables for IT-Software Industry.

- There were a positive correlation between return on equity and return on assets (0.726) at 0.01 level of significance.
- There were a negative correlation between debt-equity and Return on assets (-.479) at 0.01 level of significance.
- The current ratio is found to be negatively correlated with debt-equity ratio (-.544) and positively correlated with Earnings per share (0.374) at 0.05 level of significance.
- The Tangibility ratio is found to be positively correlated between Earnings per share(.417) and Return on equity(.446) at 0.05 level of significance.
- The Cash flows per share is found to be positively correlated between Earningsper share(.455),return on assets(.374), return on equity(.419) at 0.05 level ofsignificanceand Tangibility ratio(.629) at 0.01 level of significance.

Table 53 Multiple Correlation of select variables for Hotel Industry

Variables	Dividend payout Ratio	Earnings Per share	Return on assets	Return on equity	Debt equity ratio	Current ratio	Tangibility ratio	Cash flows per share
DividendPayoutratio	1							
Earnings per share	-.559**	1						
Return on assets	-.657**	.592**	1					
Return on equity	-.656**	.630**	.989**	1				
Debt-equity ratio	.385*	-.240	-.388*	-.321	1			
Currentratio	-.154	-.213	.036	-.010	-.141	1		
Tangibilityratio	.067	.279	-.262	-.193	.219	-.385*	1	
Cashflows pershare	-.416*	.887**	.378*	.446*	-.130	-.292	.438*	1

  **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 53 presents the results of multiple correlation between dependent and select independent variables for Hotel Industry

- There were a negative correlation between Earnings per share and Dividend payout ratio (-.559) at 0.01 level of significance

- The return on assets is found to be negatively correlated between dividend payout ratio(-.657) and positively correlated between Earnings per share(.592) at 0.01 level ofsignificance.

- The return on equity is found to be negatively correlated between Dividendpayout ratio(-.656) and positively correlated between Earnings per share(.630) and return on assets(.989) at 0.01 level of significance.

- The debt-equity ratio is positively correlated between Dividend payout ratio(.385) andnegatively correlated between return on assets(-.388) at 0.05 level of significance.

- There were a negative correlation between tangibility ratio and current ratio(-.385) at 0.05 level of significance.

- The cash flows per share is negatively correlated between dividend payout ratio(-.416) at 0.05 level of significance and positively correlated between Earnings per share(.887) at 0.01 level of significance and Return on assets(.378), return on equity (.446), tangibility ratio(.438) at 0.05 level of significance

Table 54 Multiple Correlation of select variables for Pharmaceutical Industry

Variables	Dividend payout Ratio	Earnings Per share	Return on assets	Return on equity	Debt equity ratio	Current ratio	Tangibility ratio	Cash flows per share
DividendPayoutratio	1							
Earnings per share	-.696**	1						
Return on assets	-.295	.067	1					
Return on equity	-.523**	.177	.896**	1				
Debt-equity ratio	-.588**	.342	-.213	.188	1			
Currentratio	.323	-.292	.043	-.244	-.581**	1		
Tangibilityratio	-.154	-.108	.139	.335	.321	-.619**	1	
Cashflowspershare	-.674**	.542**	.369*	.518**	.357	-.512**	.339	1

**. Correlation is significant at the 0.01 level (2-tailed).
  *. Correlation is significant at the 0.05 level (2-tailed).

Table 54 presents the results of multiple correlation between dependent and select independent variables for Pharmaceutical Industry

- There were a negative correlation between Earnings per share and Dividend payout ratio (-.696) 0.01 level of significance.

- The return on equity is found to be negatively correlated between dividend payout ratio (-.523) and positively correlated between return on assets(.896) at 0.01 level of significance.

- There were a negative correlation between debt-equity and dividend payout ratio(-.588) at 0.01 level of significance.

- There were a negative correlation between current ratio and Debt-equity ratio (-.581) at 0.01level of significance.

- The tangibility ratio is found to be negatively correlated between current ratio(-.619) at 0.01 level of significance.

- The cash flows per share is found to be negatively correlated with Dividend payout ratio (-.674) and current ratio(-.512) at 0.01 level of significance and positively correlated with Earnings per share(.542),return on equity(.518) at 0.01 level of significance and return on assets(.369) at 0.05 level of significance.

Table 55 Multiple Correlation of select variables for Cement Industry

Variables	Dividend payout Ratio	Earnings Per share	Return on assets	Return on equity	Debt equity ratio	Current ratio	Tangibility ratio	Cash flows per share
DividendPayoutratio	1							
Earnings per share	-.486**	1						
Return on assets	-.490**	.856**	1					
Return on equity	-.654**	.748**	.916**	1				
Debt-equity ratio	-.363*	-.376*	-.443*	-.116	1			
Currentratio	.365*	.186	-.027	-.203	-.395*	1		
Tangibilityratio	-.136	-.591**	-.386*	-.091	.640**	-.696**	1	
Cashflowspershare	-.375*	-.280	-.122	.099	.417*	-.362*	.321	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 55 presents the results of multiple correlation between dependent and select independent variables for Cement Industry

- There were a negative correlation between Earnings per share and Dividend payout ratio(-.486) at 0.01 level of significance.

- The return on assets is found to be negatively correlated between dividend payout ratio(-.490) and positively correlated between earnings per share(.856) at 0.01 level ofsignificance.

- The return on equity is negatively correlated between dividend payout ratio(-.654) and positively correlated with Earnings per share(.748) and return on assets(.916) at 0.01 level of significance.

- The debt-equity is found to be negatively correlated between dividend payout ratio(-.363), Earnings per share(-.376) and Return on assets(-.443) at 0.05 level of significance.

- The current ratio is positively correlated between dividend payout ratio(.365) and negatively correlated between debt-equity ratio(-.395) at 0.05 level of significance.

- The tangibility ratio is negatively correlated between earnings per share(-.591), current ratio(-.696) at 0.01 level of significance and return on assets(-.386) at 0.05 level of significance.

- The cash flows per share is found to be negatively correlated between dividend payout ratio(-.375) and current ratio(-.362) at 0.05 level of significance and

positively correlated between debt-equity(.417) at 0.05 level of significance.

Table 56 Multiple Correlation of select variables for Chemical Industry

Variables	Dividend Payout ratio	Earnings per share	Return on assets	Return on equity	Debt equity ratio	Current ratio	Tangibility Ratio	Cash flows per share
DividendPayoutratio	1							
Earnings per share	-.136	1						
Return on assets	-.700**	.471**	1					
Return on equity	-.730**	.379*	.946**	1				
Debt-equity ratio	.152	-.257	-.338	-.069	1			
Currentratio	.059	-.181	-.086	-.171	.054	1		
Tangibilityratio	-.751**	-.102	.592**	.624**	-.034	.032	1	
Cashflowspershare	-.247	.352	.484**	.341	-.560**	.201	.201	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 56 presents the results of multiple correlation between dependent and select independent variables for Chemical Industry

- The return on assets is found to be negatively correlated between dividend payout ratio (-.700) and positively correlated between earnings per share (.471) at 0.01 level of significance.

- The return on equity is negatively correlated between dividend payout ratio(-.730) at 0.01 level of significance and positively correlated between earnings pershare(.379) at 0.05 level of significance and return on assets(.946) at 0.01 level of significance.

- The tangibility ratio is found to be negatively significant between dividend payout ratio(-.751) at 0.01 level of significance and positively correlated between return on assets (.592) and return on equity(.624) at 0.01 level of significance.

- The cash flows per share is positively correlated between return on assets(.484) and negatively correlated between return on equity(-.560) at 0.01 level of significance.

Table 57 Multiple Correlation of select variables for Paper Industry

Variables	Dividend Payout ratio	Earnings per share	Return on assets	Return on equity	Debt-Equity	Current Ratio	Tangibility Ratio	Cash flows per share
DividendPayoutratio	1							
Earnings per share	-.437[*]	1						
Return on assets	-.494[**]	.407[*]	1					
Return on equity	-.659[**]	.560[**]	.869[**]	1				
Debtequityratio	.325	-.312	-.685[**]	-.406[*]	1			
Currentratio	.280	-.039	.534[**]	.259	-.375[*]	1		
Tangibilityratio	.108	-.299	-.649[**]	-.448[*]	.754[**]	-.668[**]	1	
Cashflowspershare	.098	.225	-.439[*]	-.301	.335	-.405[*]	.234	1

 **. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 57 presents the results of multiple correlation between dependent and select independent variables for Paper Industry

- There were a negative correlation between earnings per share and dividend payout ratio(-.437) at 0.05 level of significance.

- The return on assets is found to be negatively correlated between dividend payout ratio(-.494) at 0.01 level of significance and positively correlated between earnings per share(.407) at 0.05 level of significance.

- The return on equity is negatively correlated between dividend payout ratio(-.659) and positively correlated between earnings per share(.560) and return on assets(.869) at 0.01 level of significance

- The debt-equity ratio is negatively correlated between return on assets(-.685) at 0.01 level of significance and return on equity(-.406) at 0.05 level of significance.

- The current ratio is found to be positively correlated between return on assets (.534) at 0.01 level of significance and negatively correlated between debt-equity ratio (-.375) at 0.05 level of significance

- The tangibility ratio is found to be negatively correlated between return on assets (-.649) and current ratio(-.668) at 0.01 level of significance and return on equity(-.448) at 0.05 level of significance and positively correlated between debt-equity(.754) at 0.01 level of significance.

- The cash flows per share is negatively correlated between return on assets(-.439) and current ratio(-.405) at 0.05 level of significance.

➤ MULTIPLE REGRESSION ANALYSIS

To identify the influence of each independent variable selected on the dividend payout ratio of industries, multiple regression analysis was applied. The independent variables only seven variables- earnings per share, return on assets, return on equity, debt equity, current ratio, Tangibility ratio and Cash flows per share were found to be correlated with dividend payout ratio. The results of multiple regression in respect of the select industries are presented in Tables 58 to 63.

Table 58 highlights the multiple regression analysis between dividend payout ratio the dependent variable and seven independent variables of IT-Software Industry

Table 58 Results of Multiple Regression for IT- Software Industry

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	145.875	27.281		5.347	.000**
Earnings per share (X1)	-.079	.103	-.161	-.766	.452
Return on asset (X2)	-1.632	.773	-.574	-2.110	.046*
Return on equity (X3)	.075	.480	.039	.157	.877
Debt equity ratio (X4)	-218.543	67.659	-.793	-3.230	.004**
Current Ratio (X5)	-9.260	5.057	-.437	-1.831	.081
Tangibility ratio (X6)	-2.169	1.274	-.370	-1.703	.103
CashFlows Per Share (X7)	.455	.265	.365	1.718	.100

Dependent Variable: Dividend payout ratio(DPR)
**. significant at the 0.01 per cent level
*. significant at the 0.05 per cent level

Model summary

Mo	R	R Square	Adjusted R Square	F value	Significance
	.716	.513	.358	3.306	.015

Table 58 reveals that the coefficients of return on assets(X2) and Debt-Equity ratio(X4) have significant negative impact on the dependent variable DPR of the IT-Software Industry. The variable X2 and X4 account for 51.3 per cent of variations in Dividend payout ratio, as the R square stood at 0.513. The following multiple regression equation for IT-Software Industry may be derived:

$$Y = a + b_2 X2 + b_4 X4$$

i.e DPR = 145.875-1.632X2-218.543X4

Table 59 highlights the multiple regression analysis between dividend payout ratio the dependent variable and seven independent variables of Hotel Industry

Table 59 Results of Multiple Regression for Hotel Industry

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	90.180	14.658		6.152	.000**
Earnings per share (X1)	-.359	.493	-.299	-.727	.475
Return on asset (X2)	.459	6.752	.102	.068	.946
Return on equity (X3)	-2.032	5.364	-.549	-.379	.709
Debt equity ratio (X4)	21.449	24.199	.166	.886	.385
Current Ratio (X5)	-.887	.655	-.217	-1.353	.190
Tangibility ratio (X6)	-.067	.197	-.067	-.337	.739
CashFlows Per Share (X7)	.400	3.705	.043	.108	.915

Dependent Variable: Dividend payout ratio (DPR)

Model Summary

R	R Square	Adjusted R Square	F	Significance
.732	.535	.388	3.621	.010

Table 59 reveals that the co-efficients of none of the independent variables in Hotel Industry were found to have significant impact on dividend payout ratio.

Table 60 highlights the multiple regression analysis between dividend payout ratio the dependent variable and seven independent variables of Pharmaceutical Industry.

Table 60 Results of Multiple Regression for Pharmaceutical Industry

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	60.164	7.346		8.190	.000**
Earnings per share (X1)	-.056	.016	-.454	-3.568	.002**
Return on asset (X2)	.517	1.322	.183	.391	.699
Return on equity (X3)	-.824	.853	-.453	-.966	.345
Debt equity ratio (X4)	-19.973	10.693	-.383	-1.868	.075
Current Ratio (X5)	-3.374	1.566	-.331	-2.154	.042*
Tangibility ratio (X6)	-.055	.113	-.067	-.490	.629
CashFlows Per Share (X7)	-.751	.397	-.270	-1.892	.072

Dependent Variable: Dividend payout ratio(DPR)
** significant at the 0.01 per cent level
 *. significant at the 0.05 per cent level

Model Summary

R	R Square	Adjusted R Square	F value	Significance
.900	.810	.749	13.367	.000

Table 60 reveals that coefficients of Earnings per share(X1) and current ratio(X5) have found to be statistically significant and these two variables X1 and X5 have negative impact on dependent variable dividend payout ratio of pharmaceutical industry. The variable X1 and X5 account for 81.0 per cent of variations in Dividend payout ratio, as the R square stood at 0.810.

The following multiple regression equation for Pharmaceutical industry may be derived:

$$Y = a + b_1X1 + b_5X5$$

i.e   DPR= 60.164-.056EPS-3.374CR

Table 61 highlights the multiple regression analysis between dividend payout ratio the dependent variable and seven independent variables of Cement Industry.

Table 61 Results of Multiple Regression for Cement Industry

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	88.392	13.739		6.434	.000**
Earnings per share (X1)	-.718	.122	-.975	-5.902	.000**
Return on asset (X2)	-3.147	1.430	-1.209	-2.201	.038*
Return on equity (X3)	1.708	.685	1.171	2.495	.020*
Debt equity ratio (X4)	-12.374	4.213	-.470	-2.937	.007**
Current Ratio (X5)	-2.121	2.188	-.160	-.969	.343
Tangibility ratio (X6)	-.572	.143	-.795	-3.993	.001**
CashFlows Per Share (X7)	-.373	.083	-.483	-4.498	.000**

Dependent Variable: Dividend payout ratio (DPR)
**. significant at the 0.01 per cent level
*. significant at the 0.05 per cent level

Model Summary

R	R Square	Adjusted R Square	F value	Significance
.924	.854	.810	19.236	.000

Table 61 reveals that coefficients of Earnings per share(X1), Return on assets(X2), Return on equity(X3), Debt Equity ratio(X4),Tangibility ratio(X6) and Cash flows per share(X7) have found to be statistically significant and these five variables X1, X2,X4,X6 and X7 have negative impact on dependent variable dividend payout ratio whereas X3 have positive impact on dependent variable dividend payout ratio of cement industry. The variable X1, X2, X3, X4, X6 and X7 account for 85.4 per cent of variations in Dividend payout ratio, as the R square stood at 0.854.

The following multiple regression equation for Cement industry may be derived:

$$Y= a+b_1X1+b_2X2+b_3X3+b_4X4+b_6X6+b_7X7$$

i.e DPR=88.392-0.718EPS-3.147ROA+1.708ROE-12.374DE-0.572TR-0.373CFPS

Table 62 highlights the multiple regression analysis between dividend payout ratio, the dependent variable and seven independent variables of Chemical Industry.

Table 62 Results of Multiple Regression for Chemical Industry

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	67.306	8.111		8.298	.000**
Earnings per share (X1)	-.046	.053	-.145	-.868	.395
Return on asset (X2)	2.912	1.892	1.325	1.539	.138
Return on equity (X3)	-2.245	1.087	-1.650	-2.066	.051*
Debt equity ratio (X4)	25.860	13.527	.538	1.912	.069
Current Ratio (X5)	-4.486	3.860	-.183	-1.162	.258
Tangibility ratio (X6)	-.653	.207	-.530	-3.151	.005**
Cash Flows Per Share (X7)	.582	.561	.171	1.037	.311

 Dependent Variable: Dividend payout ratio (DPR)
**. Significant at the 0.01 per cent level
*. Significant at the 0.05 per cent level

Model Summary

R	R Square	Adjusted R Square	F value	Significance
.850	.723	.635	8.199	.000

Table 62 reveals that the coefficients of return on equity(X3) and Tangibility ratio(X6) have found to be statistically significant and these two variables X3 and X6 have negative impact on the dependent variable Dividend payout ratio of the Chemical Industry. The variable X3 and X6 account for 72.3 per cent of variations in Dividend payout ratio, as the R square stood at 0.723. The following multiple regression equation for Chemical Industry may be derived:

$$Y = a + b_3 X3 + b_6 X6$$

i.e DPR = 67.306-2.245ROE-0.653CFPS

Table 63 highlights the multiple regression analysis between dividend payout ratio the dependent variable and seven independent variables of Paper Industry.

Table 63 Results of Multiple Regressionfor Paper Industry

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	24.511	58.248		.421	.678
Earnings per share (X1)	.137	.279	.088	.491	.629
Return on asset (X2)	-.099	2.772	-.019	-.036	.972
Return on equity (X3)	-2.033	1.217	-.748	-1.671	.109
Debt equity ratio (X4)	7.867	8.511	.299	.924	.365
Current Ratio (X5)	23.306	10.894	.544	2.139	.044*
Tangibility ratio (X6)	-.215	.835	-.072	-.257	.800
Cash Flows Per Share (X7)	-.097	.855	-.018	-.113	.911

Dependent Variable: Dividend payout ratio (DPR)
*. significant at the 0.05 per cent level

Model Summary

R	R Square	Adjusted R Square	F value	Significance
.839	.704	.610	7.479	.000

Table 63 reveals that coefficients of current ratio(X5) have found to be statistically significant and these variable X5 have positive impact on dependent variable dividend payout ratio of paper industry. The variable X5 account for 70.4 per cent of variations in Dividend payout ratio, as the R square stood at 0.704.

The following multiple regression equation for Paper industry may be derived:

$$Y = a + b_5 X5$$

i.e   DPR= 24.511+23.306CR

Part- II Industry Analysis

Multiple Correlation of select Industries

To identify the variables considered for the analysis include dependent variable dividend payout ratio and independent variables namely Earnings per share, return on assets, return on equity, debt-equity ratio, current ratio, tangibility ratio and cash flows per share taking into account of all the sample industries (6), Multiple correlation was applied and results are presented in Table 64.

Table 64 Multiple correlation of select six Industries

Variables	Dividend payout Ratio	Earnings Per Share	Return on assets	Return on equity	Debt equity ratio	Current ratio	Tangibility ratio	Cash flows per share
DividendPayoutratio	1							
Earnings per share	-.234**	1						
Return on assets	.000	.340**	1					
Return on equity	-.205**	.312**	.875**	1				
Debt-equity ratio	-.280**	-.163*	-.528**	-.298**	1			
Currentratio	.156*	-.023	.124	-.014	-.280**	1		
Tangibilityratio	-.249**	-.279**	-.530**	-.341**	.557**	-.338**	1	
Cashflowspershare	-.079	.268**	.319**	.363**	.021	-.084	-.058	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

- There were a negative correlation between earnings per share and dividend payout ratio(-.234) at 0.01 level of significance.

- There were a positive correlation between return on assets and earnings per share (.340) at 0.01 level of significance

- The return on equity is found to be negatively correlated between dividend payout ratio(-.205) and positively correlated between earnings per share(.312) and return on assets(.875) at 0.01 level of significance.

- The debt-equity ratio is negatively correlated between dividend payout ratio(-.280), return on assets(-.528) and return on equity(-.298) at 0.01 level of significance and earnings per share(-.163) at 0.05 level of significance.

- The current ratio is positively correlated between dividend payout ratio(.156) at 0.05 level of significance and negatively correlated between debt-equity ratio(-.280) at 0.01 level of significance.

- The tangibility ratio is negatively correlated between dividend payout ratio(-.249), earnings per share(-.279),return on assets(-.530),return on equity(-.341) and current

ratio (-.338) at 0.01 level of significance and positively correlated between debt-equity ratio(.557) at 0.01 level of significance.

- The cash flows per share is positively correlated between earnings per share(.268),return on assets(.319) and return on equity(.363) at 0.01 level of significance.

Multiple Regression of select Industries

To identify the factors affecting Dividend payout ratio taking into account of all the sample industries (6), multiple regression was applied and results are presented in table 65.

Table 65 Results of Multiple Regression of select 6 Industries

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	63.732	5.817		10.956	.000**
Earnings per share (X1)	-.114	.027	-.294	-4.186	.000**
Return on asset (X2)	1.244	.492	.434	2.528	.012*
Return on equity (X3)	-1.424	.320	-.656	-4.442	.000**
Debt equity ratio (X4)	-7.404	3.688	-.176	-2.007	.046*
Current Ratio (X5)	-.278	.566	-.034	-.492	.623
Tangibility ratio (X6)	-.229	.085	-.233	-2.699	.008**
CashFlows Per Share(X7)	.175	.144	.086	1.214	.226

Dependent Variable: Dividend payout ratio(DPR)
**. significant at the 0.01 per cent level
*. significant at the 0.05 per cent level

Model Summary

R	R Square	Adjusted R Square	F value	Significance
.546	.298	.270	10.446	.000

Table 65 reveals that coefficients of Earnings per share(X1), Return on assets(X2), Return on equity(X3), Debt Equity ratio(X4) and Tangibility ratio(X6) have found to be statistically significant and these four variables X1, X3, X4 and X6 have negative impact on dependent variable dividend payout ratio whereas X2 have positive impact on dependent variable dividend payout ratio of all select companies. The variable X1, X2, X3, X4 and X6 account for 29.8 per cent of variations in Dividend payout ratio, as the R square stood at 0.298.

The following multiple regression equation of all select companies may be derived:

$$Y= a+b_1X1+b_2X2+b_3X3+b_4X4+b_6X6$$

i.e DPR= 63.732-0.114EPS+1.244ROA-1.424ROE-7.404DE-0.229TR

Table 66 Impact on industry wise effect of dividend policy

The table 66 highlights the impact on industry wise effect of dividend policy.

Industry	Independent Variables	R Square	F VALUE	Significance
IT-Software Industry	X2, X4	0.513	3.306	.015*
Hotel Industry	-	0.535	3.621	.010*
PharmaceuticalIndustry	X1, X5	0.810	13.367	.000**
Cement Industry	X1, X2, X3, X4,X6, X7	0.854	19.236	.000**
Chemical Industry	X3, X6	0.723	8.199	.000**
Paper Industry	X5	0.704	7.479	.000**
All Industry	X1, X2, X3 X4 and X6	0.298	10.446	.000**

Dependent Variable: Dividend payout ratio (DPR)
**. significant at the 0.01 per cent level
*. significant at the 0.05 per cent level
X1-Earnings per share, X2-Return on assets, X3-Return on equity, X4-Debt-equity ratio, X5-Current ratio, X6-Tangibility ratio, X7-Cash flows per share

Table 66 indicates the impact on industry wise effect of dividend policy.

- In IT-Software Industry, return on assets and Debt-Equity ratio have significant impact on the dependent variable dividend payout ratio.

- In hotel industry none of the independent variables found to have significant impact on dividend payout ratio.

- In pharmaceutical industry, earnings per share and current ratio have significant impact on dividend payout ratio

- In cement industry earnings per share, return on asset, return on equity, debt-equity ratio, tangibility ratio and cash flows per share found to have significant impact on dividend policy.

- In chemical industry, return on equity and tangibility ratio found to have significant impact on dividend policy

- In paper industry, current ratio has significant impact on dividend payout ratio.

All industries X1, X2, X3, X4, X5,X6 and X7 considering all the 30 companies in the six industries the independent variables which have significant impact on the dependent variable dividend payout ratio.

CHAPTER-V

SUMMARY OF FINDINGS AND CONCLUSION

5.1 FINDINGS

The present study on "Determinants of Dividend Policy- A Study on Indian Corporate Sector" was conducted taking into account sample of thirty companies. The data was collected from the 'Prowess' database maintained by Centre for Monitoring Indian Economy (CMIE) and annual reports of the firms listed in Bombay Stock Exchange (BSE) were analyzed and presented under the following headings.

COMPANY ANALYSIS

 ➢ Growth of select companies in terms of sales turnover, total income, total assets and net profit after tax
 ➢ Trends in dividend distribution of companies namely Earnings per share, dividend per share and dividend payout ratio.
 ➢ Determinants of dividend policy for each of the select industries.

Growth of the select companies

- Sales turnover
- Total income
- Total assets
- Net profit after tax

Sales turnover

 ➢ In terms of sales turnover in IT-Software Industry, TCS Ltd had the highest average sales turnover of Rs 46310.75 crores, followed by Infosys Ltd with a sales turnover of Rs. 34364.17 crores.There is significant difference between the companies in terms of their sales turnover during the period of study as the't' value was found to be significant at 0.10 per cent level.

 ➢ In terms of sales turnover in Hotel Industry, EIH had the highest average sales turnover of Rs.1098.65 crores, followed by Mac Charles (India) with a sales turnover of Rs.46.05 crores.There is no significant difference between the companies in terms oftheir sales turnover during the period of study.

➢ In terms of sales turnover in Pharmaceutical Industry, Alkem Lab Ltd had the highest average sales turnover of Rs 2246.05 crores, followed by Unichem Lab Ltd with a sales turnover of Rs. 901.63 crores.There is significant difference between the companies in terms of their sales turnover during the period of study as the 't' value was found to be significant at 0.05 percent level.

➢ In terms of sales turnover in Cement Industry, Ramco Cements Ltd had the highest average sales turnover of Rs 3506.15 crores, followed by Birla Corporation with a sales turnover of Rs. 2886.14 crores.There is significant difference between the companies in terms of their sales turnover during the period of study as the't' value was found to be significant at 0.01 per cent level.

➢ In terms of sales turnover in Chemical Industry, UPL Ltd had the highest average sales turnover of Rs 3971.61 crores, followed by Pidilite Industries Ltd with a sales turnover of Rs. 3232.73 crores. There is significant difference between the companies in terms of their sales turnover during the period of study as the't' value was found to be significant at 0.10 per cent level.

➢ In terms of sales turnover in Paper Industry, Seshasayee Papers Ltd had the highest average sales turnover of Rs 783.98 crores, which was followed by Rainbow papers Ltd with a sales turnover of Rs.487.91 crores. There is significant difference between the companies in terms of their sales turnover during the period of study as the 't' value was found to be significant at 0.05 per cent level.

Total income

➢ In IT-Software Industry, TCS Ltd had the highest average total income of Rs 48658.23 crores, followed by Infosys Ltd with a total income of Rs.36638.33 crores.There is significant difference between the companies in terms of their total income during the period of study as the't' value was found to be significant at 0.10 per cent level.

➢ In Hotel Industry, EIH Ltd had the highest average total incomeof Rs 1183.51 crores, followed by Mac Charles India Ltd with a total incomeof Rs.67.67 crores. There is no significant difference between the companies in terms of their total income during the period of study.

➢ In Pharmaceutical Industry, Alkem Lab Ltd had the highest average total income of Rs 2392.07 crores, followed by Unichem Lab with a total income of Rs.932.06crores. There is significant difference between the companies in terms of their total income

during the period of study as the 't' value was found to be significant at 0.05 per cent level.

- In Cement Industry, Ramco Cements Ltd had the highest average total income of Rs 3816.97 crores, followed by Birla Corporation with a total income of Rs.3052.06 crores.There is significant difference between the companies in terms of their total income during the period of study as the 't' value was found to be significant at 0.01 per cent level.

- In Chemical Industry, UPL Ltd had the highest average total income of Rs 4314.61 crores, followed by Pidilite Industries Ltd with a total income of Rs.3353.57 crores.There is significant difference between the companies in terms of their total income during the period of study as the 't' value was found to be significant at 0.10 per cent level

- In Paper Industry, Seshasayee papers Ltd had the highest average total income of Rs 801.46 crores, followed by Emami papers Ltd with a total income of Rs.503.14 crores.There is significant difference between the companies in terms of their total income during the period of study as the 't' value was found to be significant at 0.05 per cent level.

Total assets

- In terms of IT-Software Industry, Infosys Ltd had the highest average total assets of Rs 41382.17 crores, followed by TCS Ltd with total assets of Rs.41069.16 crores.There is significant difference between the companies in terms of their total assetsduring the period of study as the 't' value was found to be significant at 0.10 per cent level.

- In terms of Hotel Industry, EIH Ltd had the highest average total assets of Rs 3410.93 crores, followed by Mac Charles India Ltd with total assets of Rs 258.43 crores.There is no significant difference between the companies in terms of their total assetsduring the period of study.

- In terms of Pharmaceutical Industry, Unichem Lab Ltd had the highest average total assets of Rs 3410.93 crores, followed by Novartis India Ltd with a total assets of Rs 1045.28 crores.There is significant difference between the companies in terms oftheir

total assetsduring the period of study as the't' value was found to be significant at 0.10 per cent level.

➢ In terms of Cement Industry, Birla Corporation Ltd had the highest average total assets of Rs 4180.88 crores,followed by J.K Cements Ltd with a total assets of Rs.4056.29 crores. There is significant difference between the companies in termsof their total assetsduring the period of study as the't' value was found to be significant at 0.05 per cent level.

➢ In terms of Chemical Industry UPL Ltd had the highest average total assets of Rs 6468.81 crores, followed by Pidilite Industries Ltd with a total asset of Rs 2472.85 crores.There is no significant difference between the companies in terms of their total assetsduring the period of study.

➢ In terms of Paper Industry, Rainbow Papers Ltd had the highest average total assets of Rs 1287.47 crores,followed by Seshasayee Papers Ltd with a total assets of Rs. 956.15crores. There is significant difference between the companies in terms of their total assetsduring the period of study as the't' value was found to be significant at 0.05 per cent level.

Net Profit after tax

➢ In IT-Software Industry, TCS Ltd had the highest average net profit after tax of Rs 12449.45 crores, followed by Infosys Ltd with a total asset of Rs.8698.33 crores. There is significant difference between the companies in terms of their net profit after taxduring the period of study as the't' value was found to be significant at 0.10per cent level

➢ In Hotel Industry, EIH Ltd had the highest average net profit after tax of Rs 84.22 crores, followed by Mac Charles India Ltd with a net profit after tax of Rs 19.23 crores.There is no significant difference between the companies in terms of their netprofit after tax during the period of study

➢ In Pharmaceutical Industry, Alkem Lab Ltd had the highest average net profit after tax of Rs 389.61 crores, followed by Ajanta Pharma Ltd with a net profit after tax of Rs. 128.31 crores.There is significant difference between the companies in termsof theirnet profit after tax during the period of study as the't' value was found tobe significant at 0.10 per cent level.

➢ In Cement Industry, Ramco Cements Ltd had the highest average net profit after taxof Rs 288.89 crores, followed by Birla Corporation Ltd with a net profit after

tax of Rs. 279.59 crores. There is significant difference between the companies in termsof their net profit after tax during the period of study as the't' value was found to be significant at 0.05 per cent level.

- ➢ In Chemical Industry, Pidilite Industries Ltd had the highest average net profit after tax of Rs 393.12 crores, followed by UPL Ltd with a net profit after tax of Rs. 270.24 crores.There is significant difference between the companies in terms of their net profit after tax during the period of study as the't' value was found to be significant at 0.10 per cent level.
- ➢ In Paper Industry, Seshasayee Papers Ltd had the highest average net profit after taxof Rs 33.94 crores, followed by Rainbow Papers Ltd of Rs. 29.51 crores.

There is significant difference between the companies in terms of their net profit after tax during the period of study as the't' value was found to be significant at 0.05 per cent level.

II. Trends in dividend distribution of companies

- i . Earnings per share of companies
- ii. Dividend per share of companies
- iii. Dividend payout ratio of companies

Earnings per share of companies

- ➢ In IT-Software Industry, TCS Ltd had higher growth rate of earnings per share of 28 per cent followed by sonata software and eClerx services ltd of 14 per cent. There is significant difference between the companies in terms of their earnings per share during the period of study as the't' value was found to be significant at 0.10 per cent level.
- ➢ In Hotel Industry, EIH Ltd had higher growth rate of earnings per share of 30 per cent followed by Benares Hotels Ltd of 20 per cent.There is no significant difference between the companies in terms of their earnings per share during the period of study
- ➢ In Pharmaceutical Industry, Alkem Laboratories Ltd had higher growth rate of earnings per share of 29 per cent followed by Unichem Laboratories Ltd of 28 per cent.There is no significant difference between the companies in terms of their earnings per share during the period of study.
- ➢ In Cement Industry, Mangalam Cements Ltd had highest growth rate of earnings per share of 32 per cent followed by Birla Corporation Ltd of 21 per cent.There is significant difference between the companies in terms of their earnings per share during the period of study as the't' value was found to be significant at 0.01 per cent level.

➢ In Chemical Industry, Solar Industries Ltd had highest growth rate of earnings per share of 27 per cent followed by Vinati Organics Ltd of 23 per cent.There is no significant difference between the companies in terms of their earnings per share during the period of study.

➢ In Paper Industry Rainbow Papers Ltd had highest growth rate of earnings per share of 29 per cent followed by Emami Papers Ltd of 23 per cent.There is significant difference between the companies in terms of their earnings per share during the period of study as the 't' value was found to be significant at 0.10 per cent level.

Dividend per share

➢ In IT-Software Industry, Sonata Software Ltd had highest growth rate of dividend per share of 33 per cent followed by TCS Ltd of 32 per cent.There is significant difference between the companies in terms of their dividend per share during the period of study as the 't' value was found to be significant at 0.05 per cent level.

➢ In Hotel Industry EIH Ltd had highest growth rate of dividend per share of 17 per cent followed by Sinclairs Hotels Ltd of 10 per cent.There is significant difference between the companies in terms of their dividend per share during the period of study as the 't' value was found to be significant at 0.10 per cent level.

➢ In Pharmaceutical Industry, Amrutanjan Health Care Ltd had highest growth rate of dividend per share of 25 percent followed by Alkem Laboratories Ltd of 20 per cent.There is significant difference between the companies in terms of their dividend per share during the period of study as the 't' value was found to be significant at 0.01 per cent level.

➢ In Cement Industry Mangalam Cement Ltd had highest growth rate of dividend per share of 19 per cent followed by J.K Cements Ltd of 8 per cent.There is significant difference between the companies in terms of their dividend per share during the period of study as the 't' value was found to be significant at 0.01 per cent level.

➢ In Chemical Industry, Vinati Organics Ltd had highest growth rate of dividend per share of 28 per cent followed by Navin Fluorine International Ltd of 27 per cent.There is no significant difference between the companies in terms of their dividend per share during the period of study.

➢ In Paper Industry, Shree Ajit pulp & papers Ltd had highest growth rate of dividend per share of 15 per cent followed by Seshasayee Papers Ltd of 7 per cent.There is no

significant difference between the companies in terms of their dividend per share during the period of study.

Dividend payout ratio of companies

➢ In IT-Software Industry, TCS Ltd had highest growth rate of dividend payout ratio of 29 per cent followed by eClerx services Ltd of 20 per cent.There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.01 per cent level.

➢ In Hotel Industry, Benares Hotels Ltd and Mac Charles India Ltd had highest growth rate of dividend payout ratio of 9 per cent followed by EIH Ltd of 6 per cent.There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.01 per cent level.

➢ In Pharmaceutical Industry, Ajanta Pharma Ltd had highest growth rate of dividend payout ratio of 27 per cent followed by Unichem Laboratories Ltd of 15 per cent.There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.05 per cent level.

➢ In Cement Industry, Birla Corporation Ltd had highest growth rate of dividend payout ratio of 26 per cent followed by Ramco Cements Ltd of 24 per cent.There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.01 per cent level.

➢ In Chemical Industry, Navin Fluorine Ltd had highest growth rate of dividend payout ratio of 11 per cent followed by Vinati Organics Ltd and Solar Industries Ltd of 6 per cent. There is significant difference between the companies in terms of theirdividend payout ratio during the period of study as the't' value was found to be significant at 0.01 per cent level.

➢ In Paper Industry Shree Ajit Pulp & Papers Ltd had highest growth rate of dividend payout ratio 16 per cent followed by Seshasayee papers Ltd of 12 per cent.There is significant difference between the companies in terms of their dividend payout ratio during the period of study as the't' value was found to be significant at 0.05 per cent level.

Determinants of dividend policy for each of the select industries

The following factors have been identified as independent variable affecting dividend decision of select industries.

- ➢ Earnings per share
- ➢ Return on assets
- ➢ Return on equity
- ➢ Debt-equity ratio
- ➢ Current ratio
- ➢ Tangibility ratio
- ➢ Cash flows per share

To identify the determinants, multiple correlation and multiple regression were carried out. The results of multiple correlation analysis revealed the following.

IT-Software Industry

- There was a positive correlation between return on equity and return on asset and there was a negative correlation between debt-equity and Return on assets The current ratio is found to be negatively correlated with debt-equity ratio and positively correlated with Earnings per share.

- The Tangibility ratio are found to be positively correlated between Earnings per share and Return on equity

- The Cash flows per share is found to be positively correlated between Earningsper share, return on assets, return on equityand Tangibility ratio

Hotel Industry

- There was a negative correlation between Earnings per share and Dividend payout ratio
- The return on assets is found to be negatively correlated between dividend payout ratioand positively correlated between Earnings per share.

- The return on equity is found to be negatively correlated between Dividend payout ratio and positively correlated between Earnings per share and return on assets. The debt-equity ratio is positively correlated between Dividend payout ratioand negatively correlated between return on assets.

- There was a negative correlation between tangibility ratio and current ratio. The cash flows per share is negatively correlated between dividend payout ratioand positively

correlated between Earnings per share, Return on assets, return on equity and tangibility ratio

Pharmaceutical Industry

- There was a negative correlation between Earnings per share and Dividend payout ratio
- The return on equity is found to be negatively correlated between dividend payout ratio and positively correlated between return on assets
- There was a negative correlation between debt-equity and dividend payout ratio and there was a negative correlation between current ratio and Debt-equity ratio. The tangibility ratio is found to be negatively correlated between current ratio.
- The cash flows per share is found to be negatively correlated with Dividend payout ratio and current ratio and positively correlated with Earnings per share, return on equity and return on assets.

Cement Industry

- There was a negative correlation between Earnings per share and Dividend payout ratio
- The return on assets is found to be negatively correlated between dividend payout ratioand positively correlated between earnings per share.
- The return on equity is negatively correlated between dividend payout ratio and positively correlated with Earnings per share and return on assets.
- The debt-equity is found to be negatively correlated between dividend payout ratio, earnings per share and return on assets.
- The current ratio is positively correlated between dividend payout ratioand negatively correlated between debt-equity ratio.
- The tangibility ratio is negatively correlated between earnings per share, current ratio and return on assets.
- The cash flows per share is found to be negatively correlated between dividend payout ratioand current ratio and positively correlated between debt-equity.

Chemical Industry

- The return on assets is found to be negatively correlated between dividend payout ratio and positively correlated between earnings per share.
- The return on equity is negatively correlated between dividend payout ratioand positively correlated between earnings per share and return on assets.

- The tangibility ratio is found to be negatively significant between dividend payout ratio and positively correlated between return on assets and return on equity.
- The cash flows per share is positively correlated between return on assets and negatively correlated between return on equity.

Paper Industry

- There was a negative correlation between earnings per share and dividend payout ratio.
- The return on assets is found to be negatively correlated between dividend payout ratio and positively correlated between earnings per share.
- The return on equity is negatively correlated between dividend payout ratio and positively correlated between earnings per share and return on assets
- The debt-equity ratio is negatively correlated between return on assets and return on equity.
- The current ratio is found to be positively correlated between return on assets and negatively correlated between debt-equity ratio.
- The tangibility ratio is found to be negatively correlated between return on assets and current ratio and return on equity and positively correlated between debt-equity
- The cash flows per share is negatively correlated between return on assets and current ratio.

Determinants of dividend payout ratio of select industries

To identify the influence of each independent variable selected relating to the dividend payout ratio of industries, multiple regression analysis was applied. The dependent variable selected for this study was dividend payout ratio; those independent variables significantly correlated to dividend payout ratio-earnings per share, return on assets, return on equity, debt equity, current ratio, tangibility ratio and cash flows per share were considered.

- The Return on assets and debt-equity ratio were significant and negatively related to the

dividendpayout ratio of IT-Software Industry as R square stood at 0.513

The multiple regression equation for IT-Software Industry had derived:

$Y = a + b_2X2 + b_4X4$

i.e DPR = 145.875-1.632X2-218.543X4

- The Earnings per share and current ratio are negatively related to the dividend

  payout ratio of pharmaceutical industry as R square stood at 0.810

The multiple regression equation for Pharmaceutical industry had derived:

$$Y = a + b_1 X1 + b_5 X5$$

i.e   DPR= 60.164-.056EPS-3.374CR

- The Earnings per share, return on assets, debt-equity ratio, tangibility ratio and cash flows per share are found to be significant but negatively related to the dividend

payout ratio of cement Industry. Return on equity has positive significant impact on

dividend payout ratio of the industry as R square stood at 0.854.

The multiple regression equation for Cement industry had derived:

$$Y = a + b_1 X1 + b_2 X2 + b_3 X3 + b_4 X4 + b_6 X6 + b_7 X7$$

i.e DPR=88.392-0.718EPS-3.147ROA+1.708ROE-12.374DE-0.572TR- 0.373CFPS

- Return on equity and tangibility ratio are significant but negatively related to the dividend payout ratio of chemical industry as R square stood at 0.723.The multiple regression equation for Chemical Industry has derived:

$$Y = a + b_3 X3 + b_6 X6$$

i.e DPR = 67.306-2.245ROE-0.653CFPS

- Current ratio is significant and positively related to the dividend payout ratio of Paper Industry as R square stood at 0.704

The multiple regression equation for Paper industry had derived:

$$Y = a + b_5 X5$$

i.e   DPR= 24.511+23.306CR

Impact on industry wise effect of dividend policy

All industries X1, X2, X3, X4, X5,X6 and X7 considering all the 30 companies

in the six industries the independent variables which have significant impact on the

dependentvariable dividend payout ratio.

5.2 CONCLUSION

Dividend declaration is considered as one of the key focus area of the firm's financial policy and is considered to be one of the most important tools for the distribution of value to shareholders. Dividend policy adopted by a firm has inference in the practical life for all

whether the investor is a manager or an organization's stakeholders. The analysis brings forth that based on previous studies the variables earnings per share, return on assets, return on equity, debt-equity ratio, current ratio, tangibility ratio and cash flows per share are identified as independent variables affecting the dividend payout ratio. The multiple regression analysis revealed that except hotel industry the remaining five industries (IT-Software industry, pharmaceutical industry, cement industry, chemical industry and paper industry) of the seven variables earnings per share, return on assets, return on equity, debt-equity, current ratio, tangibility ratio and cash flows per share affect dividend policy of the industries either collectively or individually.

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