

STUDY ON CORPORATE INVESTMENT IN SERVICE SECTOR IN INDIA

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ABSTRACT

This research paper is the study of the corporate investment in Information Technology Industry and in the Banking Industry. The study examines the trends and determinants of capital structure in Indian Banking and IT industries from the perspective of empirical capital structure literature. There are several fundamental disparities between financial and non financial firms that contribute to large difference in their capital structure position. This paper also shows about the finance practices in the corporate finance. There are three leading areas of corporate finance practices that consistently require the academic concentration of scholars in corporate finance theory. These include corporate financial practices relating to investing, financing and finally the practices concerning distribution. Corporate Finance has been the subject matter of coherent connotations among the researcher, corporate managers and the practitioners, ever since the evolution of corporate finance theory. Distinguished scholars, who visited the theory of capital budgeting, capital structure, cost of capital, capitalization, dividend policy and working capital of the firm, have come out with a number of recommendations that are of paramount understanding to budding researchers.

KEYWORDS: *Corporate finance, coherent connotations, capitalization, dividend policy, empirical capital structure.*

OBJECTIVES AND METHODOLOGY

The objective of the study is to provide the awareness about the corporate investment in service sector in India. Here in this section, an attempt has been made to design and define a brief methodology commonly used to carry out the research work. The study is descriptive in nature and based on the secondary data that is gathered from the books, various articles from journals and other valid online sources.

INTRODUCTION

Over the last century, the researchers from around the Globe have worked upon postulating models and theories facilitating firms to their efficiency in terms of competitive corporate financial practices. To what degree of success these scholars have made their way into corporate board- room is the question that still remains inconclusive? What are the leading practices

World-wide regarding corporate finance and what is the standing of Indian corporate sector in such state of affairs are few equally important questions in the mind of researchers that ask for fitting resolution. As the pressure for better financial performance has been mounting largely because of increasing competition in the present globally competitive era, the researchers in finance have been left with no option but to explore a number of factors and techniques that central philosophy of modern finance theory.

INVESTING PRACTICES IN CORPORATE FINANCE.

One of the most imperative objectives of finance theory is guiding firms on how to make investment decisions. The search for a reliable method of long term project appraisal method dates back to decades. The issue not only continues to be a matter of concern for academics or managers, is also becoming more and more important to investors and shareholders. Finance theory prescribes the net present value (NPV) rule which states that a firm should take an investment project when the present value of its expected future cash flows, discounted appropriately for the project's riskiness, exceeds the cost of investment. The NPV is computed by forecasting the project's cash flow and discounting it at a discount rate reflecting the price charged by capital markets for the cash flow risk. For investors with well diversified portfolios, only the project's systematic risk affects its value: its idiosyncratic risk should not be considered. What capital budgeting tools and techniques are being practiced by the industry? How popular are they? Do firms use methods that help to maximize the value? In practice, the NPV method is used extensively, but it is by no means the only technique used. Alternative methods, such as the Payback method and the use of earnings multiples, are also common. The payback is seen as possibly the most seriously flawed method, since it ignore the time value of money and cash flow beyond an arbitrary cut-off date. Brigham (1975) surveyed 33 large firms and found that 94% use NPV, IRR or profitability index criterion in their capital budgeting decisions. They are not using multiple hurdle rates and 61% use hurdle rate based on weighted average cost of capital (WACC). 39% of the respondents revise hurdle rates less than once a year and they do not have a system for its review. Pandey (1989) studied 14 Indian companies in 1984 and found that payback period method is most widely used followed by IRR as a capital budgeting technique. In Indian corporate, there is a lack of familiarity with the discounted cash flow methodology amongst the corporate executives. The project risk is assessed through sensitivity analysis and conservative forecasts. Surprisingly, Graham and Harvey (2001) report that 57% of the CFOs in their survey of US firms always or almost always use the Payback method in capital budgeting decisions, as compared to the most frequently used method among firms in the UK, Germany and France and it is also very common in the Netherland, where it is the second most popular method after the NPV. A number of tools are available to determine the extent of profitability of a project (Akalu, 2001). However, some of these methods are unable to accommodate the current charges in business environment, especially, where increasingly

shareholder value is of importance. In addition, their continuous application reveals significant limitation in their capacity to address the basic problems of investment appraisal (Akalu, 2001) and some of these methods requires complex decision making Processes. Thus, the choice of appropriate appraisal method is becoming a difficult for project managers, which requires critical analysis of various tools.

FINANCING PRACTICES IN CORPORATE FINANCE

The researchers have explored various factors and techniques which help in estimation of cost of capital. The cost of capital is the most important yardstick to evaluate investment decisions. Not only the hurdle rate for investment projects but also the composition of the firm's capital structure is also determined by this variable. However, there still exist considerable ambiguity and confusion over how the theory of cost of capital can best be applied to the industry. The issue at stake is sufficiently important that differing choices on a few key elements can lead to wide disparities in estimated capital cost. Given the huge annual expenditure on capital projects and corporate acquisitions each year, the wise selection of discount rates is of material importance to senior corporate managers. Managers, investors and regulators have a compelling interest in identifying the factors that influence the cost of raising funds from the market. Managers require a precise estimate of their firm's cost of equity capital budgeting. Investors require the same for equity valuation; regulators need to understand the impact of new accounting standards on the cost of financial market opportunities, corporate uses of capital must be benchmarked against these capital market alternatives. The cost of capital provides this benchmark. Unless a firm can earn in excess of its cost of capital, it will not create economic profit or value for investors. A standard means of expressing a company's cost of capital is the weighted- average of the cost of capital. It is a weighted sum of the cost of equity and the cost of debt. Firms finance their operations by three mechanisms: issuing stock, issuing debt and internal financing. Rate of return that is necessary to maintain market value of a firm, also called minimum required rate of return. The cost of debt is relatively easy to calculate, as it is consisted of the interest paid (interest rate), including the cost of risk (the risk of default on the debt). In practice, the interest paid by the company will include the risk -free rate plus a risk component, which itself incorporate a probable rate of default. For companies with similar risk or credit rating, the interest rate is largely exogenous. The Capital Asset Pricing Model (CAPM) of Shape (1964) and Lintner(1965 a) is the cornerstone of modern finance and has been widely accepted as the most appropriate technique of estimation of cost of equity as reported in the survey conducted by (Bruner, Eades, Harris and Higgins, 1998). Its decision- theoretic foundation, mean-variance analysis, has become a major guidance to asset allocation. Its equilibrium restriction provide the most important risk correction in the evaluation of portfolio performance. It is widely applied to determine appropriate discount rate in capital budgeting. Asset pricing models with even greater generality are based on CAPM's key argument of optimal portfolio

demands market equilibrium and share its main prediction, namely, that expected returns increase with the co-variation with aggregate risk. Gitman and Mercurio (1982) study of 177 Fortune 1000 firms finds that 31.2% of the respondents use divided discount model and 29.9% use capital asset pricing model (CAPM) to estimate the cost of equity of the firm. Today the corporations are taking their financing and investment decision in a different environment. Hence, the need to test the CAPM in the Indian context is justified. Pricewaterhouse coopers (2000) survey of 34 representatives from across leading Indian companies, lenders and equity analysts/ investors find that CAPM is most widely used method (90% of the respondents use it) for computing cost of equity of a company, 89% of the respondents use the yield on ten-year GOI bonds as a proxy for risk free rate. 95% of the respondents' feel that currently average market risk premium is lower than 10%. 67% of the Corporate 75% of the equity analysis regard 20% to be the cost of equity for Indian companies is generally in the range of 15 – 20% as against 8-12% in case of US companies. This cost differential has been identified as a handicap for Indian companies in achieving global competitiveness.

DISTRIBUTION PRACTICES IN CORPORATE FINANCE

The area of corporate dividend policy has mesmerized financial scholars and economists for a long time, resulting in intensive theoretical modeling and empirical examinations. Dividend Policy is one of the most complex aspects in finance. Four decades ago, Black (1976) wrote, "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together". Brealey and Myers (2002) have enlisted dividend policy as one of the top ten puzzles in finance.

To start with, Miller and Modigliani (1961) viewed dividends as irrelevant and believed that in a world without market imperfection like taxes, transaction costs or asymmetric information; dividend policy should have no effect on its market value. However, since the capital market is neither perfect nor complete the dividend irrelevance proposition needs to be revisited, especially focusing the effects of information content of dividends, agency cost and institutional constraints. The market imperfection of asymmetric information is the basis for three distinct effort to explain corporate dividend policy. The mitigation of the information asymmetries between managers and owners via unexpected changes in dividend policy is the cornerstone of dividend signaling models. Agency cost theory uses dividend policy to better align the interest of shareholders and corporate managers. The free cash flow hypothesis is an ad hoc combination of the signaling and agency costs paradigms; the payment of dividends can decrease the level of funds available for perquisite consumption by corporate managers. The signaling theories posit dividend policy as a vehicle used by corporate managers to transmit private information to the market (Bhattacharyya, 1979; Miller and Rock, 1985; William, 1988; John and William, 1985). Agency cost models begins with the agency problems emphasized by Jensen (1986). Agency problems result from information asymmetries, potential wealth transfers from bondholders to

stockholders through the acceptance of high-risk and high-return projects by managers and failure to accept positive net present value projects and perquisite consumption in excess of the level consumed by prudent corporate managers. Large dividend payments reduce funds available for perquisite consumption and investment opportunities and require managers to seek financing in capital markets. The efficient monitoring of capital markets reduces less than optimal investment activity and excess perquisite consumption and hence reduces the costs associated with ownership and control separation (Easterbrook, 1984). Lintner(1956) made an empirical attempt to explain corporate dividend behavior by means of conducting interviews of personnel of large firms of United States of America. It was established that the primary determinants of changes in dividends paid out were the most recent earnings and past dividends paid. It was found that management is concerned with change in dividends rather than the amount and it tries to maintain a level of dividends. Also, there was propensity to move towards some target payout ratio but speed of adjustment varies among companies. But to come out with concrete conclusion, intensive study of all theoretical models together with empirical proof is mandatory. In recent survey studies, Lazo (1999) survey of 110 managers from Standard & Poor's 500 companies finds that companies (90%) use dividends as a signal of their future earnings; and they are very reluctant to cut dividends, regardless of a purpose for such a cut. Even when the companies initiate stock buyback programs, they do not reduce the dividends to support the repurchase, 75% of the firms have actually increased their dividend payment. In the Indian context, a few studies have analyzed the dividend behavior of corporate firms. Krishnamurty and Sastry (1971), Mahapatra and Sahu(1993), Bhat and Pandey (1994), Narasimhan and asha (1997) and Narasimhan and Vijayalakshmi (2002) are the good examples of empirical research carried out in India in the field of dividend decisions. However, dividend payment pattern of firms is still not clear and also, why do they initiate and omit dividend payments or reduce or increase dividend payments. Mohanty (1999) survey of the dividend payout ratio of the 2535 Indian companies indicate that firm's maintain a constant dividends per share and have fluctuating payout ratio depending on their profits .

CORPORATE INVESTING PRACTICES

Investment practices are related to the selection of assets, short term and long term. This chapter is divided into two parts: Part A presents the analysis of the survey conducted to examine the techniques that Indian Banking and Information Technology companies use to evaluate their projects and Part B discusses working capital practices of the select industries.

PART A: LONG TERM INVESTING PRACTICES

The search for a reliable method of long term project appraisal method dates back to decades. The issues not only continues to be a matter of concern for academics or managers but is also becoming more and more important to investor and shareholders. A number of tools are

available to determine the extent of profitability of a project . However, some of these methods are unable to accommodate the current changes in business environment, especially, where shareholder value is of prime importance. In addition, continuous application of investing techniques reveals significant limitations in their capacity to address the basic problems of investment appraisal and some of these methods require complex decision making processes. Thus, the choice of appropriate appraisal method is becoming a difficult task for project managers, which requires pragmatic attention of researchers . The traditional discounted cash flow (DCF) methods are the most commonly mentioned technique (Graham and Harvey, 2001). However most of these proposals have got their own demerits. For instance, DCF method is condemned for its inadequacy to appropriately appraise soft projects such as R & D, which leads the management to select such projects on intuition, experience and rule of thumb methods (Tam, 1992; Tyrrall, 1998).

Moreover, companies invest in different type of projects and the nature and type of project is invariably determined on the type of industry, in which they are operating. For instance, in the financial sector, Banks undertake various projects, ranging from installing technology to real estate. In its IT part, projects may range from installing ATM to Internet banking, including office automation. In this industry, both the DCF and qualitative techniques dominate the appraisal process (Akalu and Turner, 2001). Selection of appropriate investment appraisal technique is an important element in the creation of value to shareholders. Companies vary by their choice of project spending are considered at the time of model selection. Accordingly, when the amount of spending is large and the life of a project is longer, companies tend to use more quantitative and advanced appraisal models.

PART B: WORKING CAPITAL PRACTICES

Companies approach to better working capital with a goal to lower costs and free up resources for investment and growth. They take full advantage of myriad opportunities to strengthen cash flow, settle payments quickly, reduce working capital liabilities, negotiate favorable payment terms with suppliers, establish clear accountability in accounts payable and receivable, increase the value of collections personnel, and gather better information to support decision making. Decisions about how much to invest in the customer and inventory accounts, and how much credit to accept from suppliers, are reflected in the firm's cash conversion cycle (CCC), which represents the average number of days between the date when the firm must start paying its supplier and the date when it begins to collect payments from its customers.

In case of banks, in particular, the term used for working capital management is liquidity management. Banks are primarily engaged in mobilization of funds from various sources for the purpose of lending and investment. They play a crucial role in financial intermediation by canalizing savings for economic development. The activities of banks have become more

diversified in response to high expectations from their customers and stiff competition. Banks continue to introduce different products tailor-made for their clients to meet the emerging challenges. With the liberalization and globalization of economy, banks are required to offer different products and services at quite competitive prices. The process of financial intermediation and liberalization expose banks to a variety of risks. Liquidity, or the ability to fund increases in assets and meet obligations as they come due, is crucial to the ongoing viability of any banking organization and is one of the risks that banks abide. Therefore, managing liquidity is among the most important activities conducted by banks. Sound liquidity management can reduce the probability of serious problems. Indeed, the importance of liquidity transcends the individual bank, since a liquidity shortfall at a single institution can have system-wide repercussions. For this reason, the analysis of liquidity requires bank management not only to measure the liquidity position of the bank on an ongoing basis but also to examine how funding requirements are likely to evolve under various scenarios, including adverse conditions.

A Bank is liquid if it can meet all the demands made for cash against it at precisely those times when cash is demanded. Moreover whatever sources of funds bank may choose to draw upon must be available at a reasonable cost and time. Assets that can be classified as liquid assets and serve as primary sources of liquidity must be of high credit quality. They should be either of short maturity or easily marketable with little chance of loss. The amount of liquid assets may be limited by the willingness of the bank to hold such assets, since such assets generally earn less than loans or less liquid assets. The sources of bank liquidity are mostly available through money market and banks rely on it for meeting liquidity needs in the normal course of business.

Demand Deposits to Total Deposits

The ratio gives liquidity needs of an individual bank related to the demands made or likely to be made by depositors. Higher demand deposit to total deposit ratio necessitated maintenance of higher liquidity in the bank and vice versa.

Liquid Assets to Demand Deposits

The ratio measures the ability of a bank to meet the demand from depositors in a particular year. Demand deposits offer high liquidity to the depositors and hence banks have to invest these liabilities in a highly liquid asset. The liquid asset includes cash in hand, balance with the RBI, balance with other banks and money at call and short notice.

Liquid Assets to Total Assets

Liquid Assets as a percent of total assets show the percentage of liquid assets in the asset structure of the bank. Higher the proportion of Liquid Assets in the total assets, higher is the

liquidity of the bank. The liquid asset includes cash in hand, balance with the RBI, balance with other banks and money at call and short notice.

Loans to assets

The loan, being illiquid assets for a bank, indicates the percentage of illiquid assets to total assets. Other things being equal, a rise in this ratio would indicate lower liquidity and the need to evaluate other liquidity ratios.

To assess the working capital position of Indian Information Technology Industry, regression and correlation has been calculated between Cash Conversion Cycle and Return on Capital Employed:

Cash conversion cycle (CCC):

This variable is calculated as the number of days of receivable plus the number of days of inventory minus the number of days of payable. The longer the cash conversion cycle, the greater the net investment in current assets and the greater the need for financing of current assets

$$CCC = AR - AP$$

Where:

CCC is cash conversion cycle; AR stands for days of receivables and AP for days payable.

Return on capital employed (ROCE): this variable has been used as the measure of profitability of the company. This is described as (Profit after tax/Net worth) * 100. For calculating profitability, ROCE is considered as the most fitting method of calculating long-term profitability.

Regression analysis: Assuming a linear relationship between Return on Capital Employed and Cash Conversion Cycle, the Regression Model can be outlined as:

$$ROCE_t = \alpha + \beta CCE_t + u$$

Correlation Analysis: To measure the degree and direction of relationship between CCC and ROCE or in other words, working capital and profitability, correlation technique has been applied and significance level has been checked.

RESULTS AND DISCUSSIONS: BANKING INDUSTRY

Higher demand deposit to total deposit ratio necessitates maintenance of higher liquidity in the bank and vice versa. Therefore, interpretation of other ratios vis-à-vis liquidity of a bank

depends largely on this ratio, in other words, the ratio is synonymous to liquidity needs of any banking organization.

Table 3.7 throws light on the position of Indian banking industry with regard to demand deposit to total deposit ratio. The interpretation is based on the premises that lower the ratio; lower are the liquidity needs of the bank. Average Industry ration has moved between 0.11 and 0.12 through 1999-2008, depicting very less variation in last one decade. However, movement of individual banks has been low or fast paced. For instance, liquidity need of Federal Bank, Karnataka Bank and South Indian Bank have been very less through out the period of study. They have kept very less amount of demand deposit in total deposit; their ratio varies between 0.05 and 0.06, which is petite in comparison of industry average. Among the banks with high demand deposits to total deposits ratio, SBI, Kotak Mahindra Bank, UTI Bank and IDBI Bank are on the zenith.

Table 3.7 Demand Deposits to Total Deposits

Company Name	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Allahabad Bank	0.097	0.096	0.092	0.083	0.089	0.090	0.081	0.084	0.092	0.081	0.088
Andhra Bank	0.088	0.109	0.071	0.075	0.076	0.097	0.093	0.091	0.088	0.089	0.088
Bank Of Baroda	0.118	0.107	0.106	0.102	0.091	0.093	0.084	0.089	0.079	0.077	0.095
Bank of India	0.135	0.128	0.114	0.121	0.083	0.082	0.077	0.079	0.078	0.083	0.098
Bank of Mah	0.133	0.115	0.104	0.102	0.086	0.085	0.083	0.106	0.122	0.122	0.106
Bank of Raj Ltd.	0.179	0.190	0.193	0.191	0.157	0.122	0.141	0.157	0.128	0.117	0.157
Canara Bank	0.141	0.148	0.133	0.112	0.109	0.100	0.093	0.088	0.087	0.086	0.110
CBOP	0.089	0.086	0.131	0.096	0.104	0.135	0.145	0.152	0.138		
CUB	0.090	0.116	0.122	0.100	0.095	0.091	0.094	0.093	0.122	0.097	0.102
Corporatio n Bank	0.131	0.134	0.129	0.122	0.135	0.153	0.150	0.144	0.160	0.190	0.145
Dena Bank	0.103	0.120	0.112	0.110	0.103	0.106	0.102	0.101	0.119	0.091	0.107
Dhani Bank Ltd.	0.068	0.094	0.085	0.075	0.107	0.099	0.116	0.110	0.113	0.114	0.098
Federal Bank Ltd.	0.064	0.068	0.085	0.076	0.054	0.052	0.057	0.052	0.056	0.057	0.062

H F D C Bank Ltd.	0.337	0.330	0.245	0.239	0.221	0.291	0.292	0.264	0.290	0.285	0.279
I C I C I Bank Ltd.	0.095	0.161	0.160	0.085	0.077	0.107	0.129	0.100	0.093	0.101	0.111
I D B I Bank Ltd.							0.257	0.199	0.161	0.100	0.179
I N G V Bank Ltd.	0.100	0.102	0.102	0.090	0.089	0.110	0.106	0.113	0.123	0.162	0.110
Indian Bank	0.115	0.092	0.076	0.074	0.079	0.077	0.082	0.079	0.077	0.078	0.083
IOB	0.129	0.107	0.099	0.084	0.099	0.101	0.113	0.113	0.099	0.107	0.105
Indusind Bank Ltd.	0.112	0.133	0.091	0.109	0.096	0.076	0.068	0.080	0.097		
J&K Bank Ltd.	0.177	0.193	0.140	0.158	0.142	0.117	0.127	0.128	0.138	0.150	0.147
Karn Bank Ltd.	0.068	0.078	0.065	0.057	0.056	0.060	0.068	0.068	0.077	0.066	0.066
Karur V Bank Ltd.	0.111	0.112	0.122	0.120	0.111	0.111	0.118	0.126	0.131	0.123	0.118
Kotak M Bank Ltd.				0.019	0.192	0.585	0.090	0.116	0.192	0.192	0.198
Laks V Bank Ltd.	0.155	0.155	0.127	0.125	0.136	0.124	0.122	0.104	0.101	0.100	0.125
OBC	0.091	0.085	0.084	0.081	0.092	0.087	0.090	0.100	0.099	0.100	0.091
PNB	0.119	0.115	0.112	0.105	0.130	0.113	0.121	0.140	0.118	0.107	0.118
South I Bank Ltd.	0.062	0.061	0.049	0.049	0.048	0.048	0.056	0.059	0.051	0.051	0.053
SBBJ	0.170	0.151	0.157	0.152	0.176	0.140	0.141	0.118	0.085	0.101	0.139
SBI	0.182	0.184	0.166	0.156	0.151	0.158	0.154	0.179	0.188	0.183	0.170
SBT	0.108	0.103	0.108	0.090	0.070	0.076	0.071	0.063	0.055	0.058	0.080
Syndicate Bank	0.110	0.105	0.110	0.116	0.112	0.095	0.108	0.112	0.097	0.112	0.108
Uco Bank	0.123	0.126	0.120	0.114	0.098	0.087	0.080	0.073	0.084	0.072	0.098
UBI	0.123	0.155	0.174	0.167	0.113	0.099	0.081	0.081	0.101	0.114	0.121
UTI Bank Ltd.	0.120	0.116	0.091	0.094	0.147	0.257	0.226	0.199	0.192	0.229	0.167
Vijaya Bank	0.172	0.166	0.138	0.127	0.116	0.097	0.115	0.123	0.111	0.101	0.127
Yes Bank Ltd.							0.011	0.103	0.051	0.074	0.060
Average	0.123	0.126	0.116	0.107	0.109	0.122	0.111	0.114	0.113	0.112	0.116

Source: Prowess Database of CMIE

The industry average for the liquid asset to demand deposit ratio for the period under study is 1.345. However, ICICI Bank, South India Bank and Karnataka Bank are keeping much higher liquid assets than the industry average. Average ratio of South India Bank is as high as 2.443. The point to be noted here is this that South India Bank and Karnataka Bank are among those which have least ratio of demand deposits to total deposits and hence need less liquidity in comparison to other banks. But, they are preserving higher liquid ratios than other banks to maintain liquidity and solvency. Moreover, HDFC Bank, Vijaya Bank, Corporation Bank, SBI, UBI and Laxmi Vilas Bank are upholding less liquid assets to meet payment of demand deposits. HDFC Bank and UBI are maintaining just 0.663 and 0.0876 liquid assets respectively against demand deposits; which can be termed as stringent and risky policy decision by the management of these banks.

Table 3.8 Liquid Assets to Demand Deposits

Company Name	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Allahabad Bank	1.534	1.275	1.343	1.183	0.886	0.912	1.005	1.076	0.900	1.218	1.133
Andhra Bank	1.819	1.359	1.736	1.219	1.042	1.160	1.377	1.666	1.099	1.291	1.377
Bank Of Baroda	2.292	2.272	2.178	1.414	1.129	1.073	1.347	1.606	1.851	1.907	1.707
Bank of India	1.815	1.461	1.090	0.918	1.308	1.466	1.234	1.545	1.858	1.420	1.412
Bank of Mah	1.255	1.073	1.430	1.082	1.327	2.438	1.614	0.834	0.811	0.831	1.270
Bank of Raj Ltd.	1.144	1.056	1.036	0.952	1.210	1.477	2.146	2.085	1.781	1.792	1.468
Canara Bank	1.387	1.062	1.678	1.748	0.982	1.390	0.968	1.250	1.316	1.349	1.313
CBOP	1.769	1.534	1.954	1.872	1.655	0.813	0.901	0.732	0.727		
CUB	1.921	1.181	1.164	0.985	0.811	0.921	0.781	0.813	0.843	1.316	1.074
Corporation Bank	1.486	1.284	1.490	1.446	0.831	0.797	0.875	0.861	0.991	0.849	1.091
Dena Bank	1.478	0.981	1.365	0.912	0.854	0.748	0.839	1.052	0.859	1.310	1.040
Dhani Bank Ltd.	3.294	1.354	1.267	1.461	1.149	1.269	1.253	1.107	1.727	1.680	1.556
Federal Bank Ltd.	1.668	1.164	0.730	1.008	1.545	1.845	1.807	1.996	1.901	1.875	1.554

H F D C Bank Ltd.	0.691	0.681	1.071	0.916	0.700	0.411	0.422	0.470	0.457	0.514	0.633
I C I C I Bank Ltd.	2.841	2.151	1.371	4.673	1.759	1.167	1.007	1.028	1.737	1.541	1.927
I D B I Bank Ltd.							1.455	1.036	0.989	1.205	1.171
I N G V Bank Ltd.	2.674	1.909	2.551	2.222	1.506	0.968	0.833	0.744	0.841	0.957	1.520
Indian Bank	0.969	1.180	1.104	0.848	1.337	1.343	0.900	1.500	1.326	1.430	1.194
IOB	1.788	1.798	1.502	1.363	0.988	1.253	0.989	0.650	1.318	1.149	1.280
Indusind Bank Ltd.	1.682	1.256	2.072	1.629	1.399	2.630	1.549	1.478	1.669		
J&K Bank Ltd.	1.173	1.261	1.314	0.966	0.728	1.340	1.160	0.760	1.039	1.033	1.077
Karn Bank Ltd.	2.908	2.555	2.141	1.608	1.365	1.317	1.866	1.355	1.075	1.773	1.796
Karur V Bank Ltd.	1.775	1.725	1.262	1.706	1.209	0.915	0.834	0.823	0.629	0.771	1.165
Kotak M Bank Ltd.				5.391	1.551	0.261	1.102	0.798	0.619	0.688	1.487
Laks V Bank Ltd.	1.094	0.985	0.830	0.758	0.617	0.683	0.830	1.023	1.265	1.100	0.919
OBC	1.557	1.398	1.280	1.444	0.920	1.156	1.750	1.101	1.181	1.316	1.310
PNB	1.205	1.146	0.962	0.947	0.817	0.891	0.890	1.482	0.950	1.058	1.035
South I Bank Ltd.	2.953	2.179	2.545	3.159	2.378	2.027	1.465	2.384	3.142	2.202	2.443
SBBJ	1.245	1.665	1.500	1.114	0.762	0.812	0.663	0.955	1.776	1.307	1.180
SBI	1.734	1.303	1.505	1.535	1.009	0.866	0.695	0.655	0.634	0.687	1.062
SBT	1.803	1.819	1.527	1.636	1.120	0.942	1.655	0.841	1.554	1.790	1.469
Syndicate Bank	1.399	1.606	1.097	0.953	0.733	1.623	0.616	0.865	1.248	1.091	1.123
Uco Bank	1.319	1.114	1.240	0.899	1.017	1.222	1.651	0.835	1.135	1.400	1.183
UBI	1.699	1.363	0.877	0.737	0.774	0.769	1.312	1.069	0.977	0.853	1.043
UTI Bank Ltd.	1.360	1.342	1.508	2.348	1.436	1.050	0.629	0.457	0.612	0.624	1.137
Vijaya Bank	0.938	0.878	0.830	0.887	0.814	0.551	0.548	0.830	1.215	1.264	0.876
Yes Bank Ltd.							7.417	0.716	3.109	1.657	3.225
Average	1.681	1.418	1.442	1.541	1.139	1.156	1.297	1.073	1.258	1.276	1.345

Source: Prowess Database of CMIE

Liquid Assets as a percent of total assets show the percentage of liquid assets in the asset structure of the bank. Higher the proportion of Liquid Assets in the total assets, higher is the liquidity of the bank. The liquid asset includes cash in hand, balance with the RBI, balance with other banks and money at call and short notice.

Bank of Baroda, Bank of Rajasthan, SBI and UTI Bank are keeping higher percentage of their assets as liquid than other banks. Whereas, Federal Bank, Kotak Mahindra Bank, Lakshmi Vilas Bank and IDBI Bank have very less liquid assets in their kitty; their ratio falls between 0.04 and 0.09.

Table 3.9 Liquid Assets to Total Assets

Company Name	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Allahabad Bank	0.132	0.110	0.112	0.089	0.072	0.075	0.073	0.079	0.073	0.085	0.090
Andhra Bank	0.144	0.135	0.111	0.081	0.068	0.095	0.108	0.126	0.085	0.101	0.105
Bank Of Baroda	0.230	0.213	0.196	0.126	0.089	0.085	0.098	0.119	0.128	0.124	0.141
Bank of India	0.201	0.159	0.107	0.094	0.091	0.101	0.079	0.102	0.122	0.099	0.116
Bank of Mah	0.150	0.109	0.133	0.098	0.102	0.170	0.118	0.076	0.086	0.088	0.113
Bank of Raj Ltd.	0.175	0.164	0.163	0.149	0.164	0.162	0.267	0.296	0.203	0.183	0.192
Canara Bank	0.170	0.139	0.198	0.173	0.094	0.121	0.079	0.096	0.099	0.099	0.127
CBOP	0.109	0.098	0.185	0.158	0.151	0.097	0.103	0.092	0.079		
CUB	0.150	0.119	0.125	0.087	0.068	0.075	0.065	0.065	0.090	0.111	0.096
Corporation Bank	0.163	0.146	0.162	0.142	0.092	0.097	0.106	0.101	0.127	0.134	0.127
Dena Bank	0.121	0.093	0.126	0.083	0.073	0.066	0.074	0.094	0.090	0.104	0.093
Dhani Bank Ltd.	0.202	0.111	0.095	0.096	0.107	0.110	0.129	0.108	0.175	0.172	0.131
Federal Bank Ltd.	0.089	0.067	0.054	0.067	0.074	0.085	0.092	0.090	0.092	0.084	0.080
H F D C Bank Ltd.	0.156	0.161	0.196	0.162	0.114	0.086	0.087	0.094	0.099	0.111	0.127
I C I C I Bank Ltd.	0.235	0.283	0.182	0.122	0.060	0.067	0.077	0.068	0.108	0.095	0.130
I D B I	0.061	0.022	0.033	0.028	0.018		0.069	0.061	0.067	0.067	0.047

Bank Ltd.											
I N G V Bank Ltd.	0.229	0.161	0.209	0.150	0.107	0.084	0.072	0.067	0.083	0.125	0.129
Indian Bank	0.105	0.104	0.080	0.057	0.090	0.089	0.064	0.101	0.086	0.096	0.087
IOB	0.207	0.170	0.135	0.102	0.087	0.111	0.097	0.062	0.109	0.102	0.118
Indusind Bank Ltd.	0.153	0.137	0.156	0.146	0.116	0.149	0.089	0.100	0.136		
J&K Bank Ltd.	0.178	0.217	0.162	0.134	0.091	0.138	0.130	0.086	0.126	0.135	0.140
Karn Bank Ltd.	0.178	0.179	0.127	0.083	0.069	0.071	0.109	0.081	0.072	0.103	0.107
Karur V Bank Ltd.	0.161	0.159	0.131	0.168	0.112	0.084	0.083	0.087	0.070	0.081	0.114
Kotak M Bank Ltd.	0.020	0.030	0.010	0.013	0.035	0.117	0.066	0.059	0.065	0.077	0.049
Laks V Bank Ltd.	0.143	0.130	0.092	0.082	0.073	0.073	0.087	0.094	0.110	0.094	0.098
OBC	0.127	0.107	0.098	0.103	0.074	0.088	0.140	0.094	0.102	0.113	0.105
PNB	0.126	0.115	0.096	0.088	0.094	0.086	0.088	0.171	0.096	0.095	0.105
South I Bank Ltd.	0.159	0.117	0.111	0.140	0.102	0.087	0.074	0.124	0.142	0.100	0.116
SBBJ	0.160	0.183	0.175	0.128	0.099	0.093	0.076	0.089	0.125	0.110	0.124
SBI	0.239	0.180	0.192	0.186	0.120	0.107	0.086	0.090	0.092	0.093	0.139
SBT	0.156	0.153	0.132	0.120	0.065	0.059	0.098	0.043	0.070	0.084	0.098
Syndicate Bank	0.140	0.146	0.107	0.099	0.073	0.139	0.059	0.085	0.106	0.109	0.106
Uco Bank	0.139	0.119	0.126	0.093	0.090	0.096	0.119	0.054	0.083	0.090	0.101
UBI	0.188	0.188	0.136	0.111	0.076	0.066	0.091	0.072	0.082	0.081	0.109
UTI Bank Ltd.	0.127	0.134	0.116	0.188	0.182	0.235	0.119	0.073	0.094	0.114	0.138
Vijaya Bank	0.144	0.132	0.101	0.103	0.084	0.046	0.055	0.090	0.120	0.109	0.098
Yes Bank Ltd.							0.042	0.052	0.116	0.096	0.076
Average	0.153	0.137	0.129	0.113	0.091	0.100	0.093	0.092	0.102	0.106	0.110

Source: Prowess Database of CMIE

The ratio has increased substantially from 1999 to 2008; it was 0.401 in 1998-99 and increased to 0.583 in 2007-08. HDFC Bank, Bank of Rajasthan and CBI fall under the category of banks with low loans to assets ratio. It can be considered as good sign as far as liquidity is concerned but profitability of these banks might suffer due to less deployment of funds in loans. Most of

the banks have increased this ratio in recent years. Top banks among them are CUB, Federal Bank, South Indian Bank and UBI.

Table 3.10 Loan to Total Assets

Company Name	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Allahabad Bank	0.371	0.393	0.434	0.423	0.447	0.442	0.468	0.527	0.610	0.599	0.472
Andhra Bank	0.358	0.353	0.364	0.462	0.467	0.477	0.535	0.543	0.586	0.605	0.475
Bank Of Baroda	0.378	0.416	0.433	0.475	0.463	0.418	0.458	0.528	0.584	0.594	0.475
Bank of India	0.451	0.476	0.538	0.550	0.561	0.539	0.584	0.580	0.601	0.634	0.552
Bank of Mah	0.307	0.345	0.350	0.384	0.381	0.364	0.397	0.527	0.588	0.608	0.425
Bank of Raj Ltd.	0.373	0.434	0.429	0.406	0.361	0.275	0.316	0.412	0.471	0.470	0.395
Canara Bank	0.357	0.432	0.419	0.459	0.492	0.488	0.547	0.597	0.593	0.593	0.498
CBOP	0.435	0.352	0.344	0.404	0.407	0.455	0.489	0.575	0.597		0.451
CUB	0.471	0.499	0.482	0.453	0.462	0.485	0.576	0.618	0.621	0.617	0.528
Corporation Bank	0.420	0.464	0.440	0.465	0.458	0.476	0.547	0.592	0.568	0.588	0.502
Dena Bank	0.431	0.422	0.396	0.408	0.426	0.429	0.471	0.536	0.582	0.596	0.470
Dhani Bank Ltd.	0.438	0.487	0.519	0.486	0.513	0.465	0.533	0.559	0.533	0.521	0.506
Federal Bank Ltd.	0.524	0.442	0.550	0.511	0.430	0.434	0.452	0.567	0.592	0.580	0.508
H F D C Bank Ltd.	0.322	0.295	0.297	0.286	0.386	0.419	0.496	0.476	0.514	0.476	0.397
I C I C I Bank Ltd.	0.302	0.303	0.356	0.440	0.487	0.486	0.528	0.580	0.567	0.563	0.461
I D B I Bank Ltd.	0.718	0.703	0.739	0.726	0.722		0.558	0.595	0.602	0.629	0.666
I N G V Bank Ltd.	0.366	0.439	0.423	0.410	0.488	0.523	0.590	0.610	0.621	0.574	0.504
Indian Bank	0.411	0.412	0.415	0.413	0.389	0.400	0.459	0.472	0.518	0.565	0.445
IOB	0.370	0.419	0.32	0.428	0.424	0.429	0.496	0.585	0.572	0.593	0.475
Indusind Bank Ltd.	0.432	0.460	0.498	0.546	0.540	0.484	0.576	0.527	0.529		0.510

J&K Bank Ltd.	0.371	0.333	0.374	0.437	0.477	0.438	0.472	0.548	0.596	0.576	0.462
Karn Bank Ltd.	0.420	0.427	0.424	0.440	0.421	0.441	0.501	0.521	0.589	0.560	0.474
Karur V Bank Ltd.	0.464	0.483	0.532	0.481	0.542	0.566	0.586	0.617	0.635	0.646	0.555
Kotak M Bank Ltd.				0.685	0.574	0.360	0.616	0.624	0.548	0.549	0.565
Laks V Bank Ltd.	0.396	0.408	0.428	0.480	0.498	0.479	0.520	0.600	0.620	0.590	0.502
OBC	0.370	0.380	0.409	0.439	0.461	0.480	0.468	0.570	0.597	0.602	0.478
PNB	0.379	0.417	0.441	0.471	0.466	0.461	0.478	0.513	0.594	0.600	0.482
South I Bank Ltd.	0.414	0.455	0.473	0.493	0.474	0.454	0.566	0.588	0.580	0.612	0.511
SBBJ	0.352	0.353	0.372	0.379	0.377	0.427	0.514	0.578	0.595	0.608	0.455
SBI	0.370	0.375	0.360	0.347	0.366	0.387	0.440	0.530	0.595	0.577	0.435
SBT	0.353	0.413	0.442	0.450	0.481	0.463	0.514	0.592	0.647	0.638	0.499
Syndicate Bank	0.407	0.449	0.464	0.469	0.474	0.437	0.513	0.597	0.579	0.598	0.499
Uco Bank	0.328	0.351	0.395	0.432	0.456	0.471	0.507	0.604	0.628	0.613	0.478
UBI	0.320	0.428	0.449	0.482	0.500	0.504	0.554	0.599	0.607	0.598	0.504
UTI Bank Ltd.	0.554	0.526	0.446	0.372	0.366	0.388	0.413	0.448	0.503	0.544	0.456
Vijaya Bank	0.323	0.388	0.401	0.384	0.413	0.459	0.489	0.528	0.572	0.564	0.452
Yes Bank Ltd.							0.575	0.578	0.566	0.555	0.569
Average	0.401	0.421	0.437	0.455	0.463	0.446	0.504	0.555	0.578	0.583	0.488

Source: Prowess Database of CMIE

CORPORATE CAPITAL STRUCTURE PRACTICES

In the context of asymmetric information and market imperfections firms' choice of debt-equity ratio (leverage) depends upon multiple factors. The empirical studies on corporate capital structure in industrialized countries are immense, for example studies of Titman and Wessels (1998) and Rajan and Zingales (1995). These studies provided that how institutional factors could explain differences in firm's capital structure in largest industrialized countries. However, there exists chaos in the industry as well as academics about determinants of capital structure. It has also been discovered in the survey conducted by Graham and Harvey (2001) on financial management practices. The present study is based on Indian Banking and Information Technology Industries.

Can we apply theories of Corporate Finance to banks? Capital requirement of banks is talked about in the form of capital adequacy framework imposed by regulators as the ratio of risk weighted assets. Due to issues relating to regulation and supervision imposed on banks regarding capital adequacy norms, it's being assumed that banks' capital structure ratios are constant or show negligible variation. However, in the words of Pringle (1974), "although often precise in appearance, regulatory guidelines regarding capital are little more than rules of thumb and their application is subject to wide disagreement". More to the point, Barth et al. (2005), Flannery and Rangan (2006) and Berger et al. (2007) confirm that the level of capital of banks in the US and around the world is much higher than regulation would suggest which implies that there are other factors governing capital and capital structure issues in banks. Flannery (1994), Ashcraft (2001) and Allen et al (2006) find little evidence that changes in banks' capital structure are related to changes in regulatory requirements. If capital adequacy norms are not the only factors that are affecting capital and capital structure decisions in the banks, then there is a need to search out the hidden factors. Myers and Rajan (1998) show that a financial firm will have an optimal interior level of capital structure depending upon the liquidity of assets. Barrios and Blanco (2003) argue that Spanish banks' capital ratios over the period 1985-1991 were primarily driven by the pressure of market forces rather than regulatory constraints. Now, the question is as to what are these factors affecting capital structure choice of banks. Nevertheless, several previous studies, like, Fama (1980), Taggart and Greenbaum (1978) have taken the view that banks are corporations and are thus susceptible to corporate capital structure theory. However, banks are intentionally being excluded from the investigation of capital structure, for instance, study on capital structure by Titman and Wessels (1988), Rajan and Zingales (1995). Furthermore, Marques and Santos (2003) examined theoretically and empirically the problem of the banking firm's capital structure (voluntary) decisions during 1989-1998. Findings support the notion that Portuguese banks' debt/equity choice does matter. Survey results are consistent with a number of theoretical propositions typically associated with the determinants of debt-equity choice of non-financial firms. Gropp and Heider (2008) are unable to detect a first order effect of capital regulation on the capital structure of banks and confirm the robustness of current corporate finance findings in a holdout sample of banks.

Different corporate finance theories offer a long list of factors that derive capital structure decisions in the corporate world (see Harris and Raviv, 1991). The literature (for instance, Pandey and Chotigeat (2006), Baarclay and Smith (2005), Drobetz and Fix (2003), Bevan and Danbolt (2000), Rajan and Zingales (1995) has converged on following set of measures of capital structure and its determinants:

RESULTS AND DISCUSSIONS: IT INDUSTRY

Four independent variables, specifically, Tangibility of assets, Size of the company, Volatility and Non-debt tax shield are the major aspects directing capital structure decisions in the industry. F Statistics are showing significant results for both firm effect and firm & time effect; it confirms that the model has been rightly specified. Results elucidate that firm as well as time effect are not playing considerable role in capital structure decisions of Indian IT industry.

Capital structure of Indian IT industry has undergone tremendous change during 1999-2008. Average debt equity ratio has decreased to 28 percent in 2007-08 from 50 percent in 1998-99. It has decreased considerably during the period under concern; it slipped down to 9 percent in 2002-03, afterwards, leverage ratio has been increasing gradually. Average debt equity ratio for the whole period is 20 percent. Business risk of the industry is very high due to its peculiar features; therefore, most of the companies prefer to keep their financial risk low. The list of IT companies that have maintained a higher debt equity ratio than the industry average includes D S Q Software Ltd, G T L Ltd, I gate Global Solutions Ltd, K P I T Cummins Infosystems Ltd, Maars Software International Ltd, Onward Technologies Ltd, Ramco Systems Ltd, Rolta India Ltd, Satyam Computer Services Ltd and Zensar Technologies Ltd. However, it is worth mentioning that these companies have reduced their debt equity ratio considerably during last few years. It is evident from the list that none of the top companies of the industry are maintaining higher debt equity ratio. Overall average debt-equity ratio of Indian IT industry is fairly lower than the total industries average.

Table 4.4 Leverage Ratio of Indian IT Industry

(in percent)

Company Name	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Aftek Ltd	24.4	2	0	0	0	0	0	12.5	7.2	0	5.5
Aztecsoft Ltd.	0	16	3	0	0	0	0	0	0	0	2.2
Blue Star Infotech	0	0	0	0	0	0	0	0	0	0	0
C M C Ltd.	64.5	66.4	46.5	24	40.3	40.2	47.3	32.4	8	10.2	38.2
D S Q Software Ltd.	0		7	0	22	44	0	0	0	0	60.5
Finan Tech (India)	0	0	0	0	8	0	0	0		0	28.2
G T L Ltd.		31.4	4.5	4.2	6	11.3	30.6	0	79.3	76.6	39.2

Geom Sr S Co. Ltd.	0	10	0	0	4	0	1	0	11	7	3
H C L Tech Ltd.	0	0	0	0	0	0	4	3	1	1	1
Hexawaare Tech Ltd.	54.3	5	0	16	8	1	1	0	0	0	9
Hinduja T M T Ltd.	16.6	0	5.2	0	0	0	0	53.5	5	0	9
I-Flex Solutions Ltd.	0	0	0	0	0	0	0	0	0	0	0
Igate Global Solu			11	0	0	16	13	19.3	16.3	1	134.3
Info Tech (India) Ltd.	38.2	1	4.2	4.6	38.7	93.4	0	0	0	0	30.3
Infosys Tech Ltd.	0	0	0	0	0	0	0	0	0	0	0
Infotech Enterpris	18.3	48.5	27.6	12.5	0	0	0	0	6	6	12
K P I T Cumm Info	45.3	18.5	26.6	32.5	20.7	56.8	33.6	62.5	63.7	32.4	39.4
Kale Consultants	17	0	16.3	16.5	18.6	28.7	31.4	19.3	14.3	0	18.3
Maars Soft Inter Ltd.	45.t	8.6	35.4	58.4		48.4	39.4	37.4	26.4	0	48.3
Mastek Ltd.	18	20	6	0	1.3	1.6	1.4	0	1.4	1	5.3
Mphasis Ltd.	1.3	1.3	0	0	0	0	0	0	0	0	0
N I I T Ltd.	30	0	0	9	7	8	18	41	43	22	18
Onward Tech Ltd.			46.4	57.5	67.6	59.6	27.3	29.2	40.7	39.8	65.4
Orient Info Tech Ltd.	13	0	0	0	0	0	0	0	10	0	3
Patni Computer S	0	0	0	0	0	0	0	0	0	0	0
Pentasoft Tech Ltd.	7.5	1.4	6.3	8.6	10.3	6.2	51.6	51.2	27.4	29.2	20.2
Polaris Soft Lab Ltd.	10	0	0	0	0	0	0	0	0	0	1
Quintergra	0				9	3	6	8	44	0	10

Solu Ltd.		2	0	8								
Ramco Systems	0	4.2	14.4	19.5	58.5	48.2						34.5
Rolta India Ltd	50.4	48.6	44.7	46.3	43.5	50.3	44.2	33.5	45.4	53.2		41.2
Satyam Comp S Ltd.			21.3	12.4	1.3	0	0	0	0	0	0	11.2
Sonata Infor Tech Ltd.	25	0	0	0	0	0	0	0	0	0	0	3
S S I Ltd.	52.4	7.5	6.3	9	8.3	29.5	11.3	8.3	25.2	9.5		18.9
Tata consul S Ltd.	0	0	0	0	0	0	4	1	1	0		1
Tata Elxsi Ltd.	30	42	50	5	0	0	0	0	0	47		18
Visesh Infotecnics L	0	1	0	0	1	5	6	19	22	0		7
Visualsoft Tech Ltd.	0	0	0	0	0	0	0	0	0	0		0
Wipro Ltd.	64	9	2	1	2	3	1	1	3	33		12
Zenith Infotech Ltd	0	2	0	0	0	0	0	11	212	341		57
Zensar Tech Ltd.		12	4	1	1	0	12	12	8	0		20
Average	50.3	25.5	10.3	9.3	12.2	15.7	13.6	14.4	27.3	28.4		20.7

Source: Prowess Database of CMIE

CORPORATE COST OF CAPITAL AND CAPITALIZATION PRACTICES

PART A: COST OF CAPITAL PRACTICES

The cost of capital is the most important yardstick to evaluate investment decisions. Not only the hurdle rate for investment projects but also the composition of the firm's capital structure is also determined by this variable. The cost of capital for a firm is a weighted sum of the cost of equity and the cost of debt. Firms finance their operations by three mechanisms: issuing stock (equity), issuing debt (borrowing from a bank is equivalent for this purpose), and reinvesting prior earnings (internal financing). Rate of return that is necessary to maintain market value (or stock price) of a firm, also called a hurdle rate, cutoff rate, minimum required rate of return or cost of capital. The cost of equity capital plays an important role in managerial decision-making,

investors' equity valuation decisions and so forth. The Capital Asset Pricing Model (CAPM) of Sharpe (1964) and Lintner (1965) is the cornerstone of modern finance and has been widely accepted as the most appropriate technique of estimation of cost of equity. Over the period of four decades this model has been extensively tested in its various forms in the developed capital markets of the world with the results ranging from favorable to non-favorable. Graham and Harvey (2001) study finds that CAPM is widely used (73.5%) to find out cost of equity capital of the firm. Few firms use dividend discount model (rating of 0.91). The large firms are more likely to use CAPM than are small firms (rating of 3.27 versus 2.49 respectively). The firms with high foreign sales and public firms are more likely to use CAPM. In developing countries, not much effort has been made to test the application of this model. In India since 1991 there have been major changes in economic and financial policies and examining CAPM in context of Indian corporate is desirable.

PART B: CAPITALIZATION PRACTICES

An issue that intrigues academic researchers, as well as investors and policy makers, is how equity value is related to accounting data. Earnings and equity book value, the summary measures of two primary financial statements, occupy a central place in equity valuation. They provide essential inputs for valuation whether using informal techniques (such as price-to-book and price-to-earnings multiples) or more sophisticated models (such as residual income model). A question that has long intrigued both practitioners and academic researchers is: What roles do earnings and book value play in value determination? Accounting information is vital for equity valuation. Early empirical studies examine the valuation role of either balance sheet data (e.g., Landsman (1986), Barth (1991) and Shevlin (1991)) or income statement data (e.g., Barth et al (1992) and Collin and Kothari (1989)), but do not combine the two financial statements. This section of the chapter estimates impact of EPS (earning per share) and BVPS (book value per share) on PRICE (market price of stocks) on Indian Banking and IT industries.

CORPORATE DISTRIBUTION PRACTICES

DETERMINANTS OF DIVIDEND PRACTICES

Dividend practices in the corporate sector are governed by a large number of determinants. The review of literature reveals that profit after tax, lagged dividend, depreciation, capital expenditure, current ratio, debt equity ratio, interest payments, change in sales, share price behavior, and cash flow are expected to have a direct bearing on the dividend policy practices of the firms. These determinants are briefly outlined here under:

- **Profit after Tax:** The crucial determinant of dividend payments is the current earnings (profit after tax) representing the capacity to pay dividends, which have a positive relationship with dividends. Further, the level of profit is almost invariably the starting point

in the management's consideration of whether dividend in any given year. This variable as a key determinant of dividend in any given year. This variable as a key determinant of dividend policy is found in the work of Lintner (1956), Fama and Babiak (1968) and others.

- **Cash Flow:** Brittain (1966) suggests that cash flow is a more appropriate measure of the company's capacity to pay dividend. Cashflow is derived from profit after tax plus depreciation expense of the concerned financial year. He argues that dividend payment is considered a charge prior to depreciation and hence should be related to earning gross of depreciation. This variable has been proved to be significant determinant of dividend policy in the empirical works of Mahapatra (1992), Mahapatra and Sahu (1993).
- **Lagged Dividend:** Lagged dividend variable is the cash dividends paid by the company one year prior to the year under consideration. In order to follow a stable dividend policy management has to allow the past dividend trend to influence the current dividend payments. Moreover, it exhibits the speed of adjustment mechanism which states that companies try to achieve a certain desired payout ratio in the long run. Most of the theoretical and empirical studies have included this variable as an important determinant of dividend policy.
- **Depreciation Allowance:** Depreciation charge is a non cash expense; it is added as an independent variable in the dividend behavior model, since regulation and accounting practices regarding depreciation might affect dividend policy inversely through its impact on current net profits. This variable has been used as explanatory variable by Brittain (1966), it was found statistically significant.
- **Capital Expenditure:** Another important factor that determines the dividend decisions is the firm's capital expenditure. The extent to which the company decides to finance these expenditure from internal resources, both dividend and capital expenditure from internal resources, both dividend and capital expenditure decision would compete with each other, therefore, capital expenditure in a company is negatively related to its dividend payments. The impact of this determinant has been studied by Dhrymes and Kurz (1964), Mahapatra and Sahu (1993).
- **Current Ratio:** Payment of dividend means cash outflows. Though, a firm may have adequate earnings to declare dividends, but it may not have sufficient cash to pay the same. Thus, current ration of the firm is an important consideration in paying dividends. The greater the current ratio, the greater is ability to pay dividend.
- **Debt Equity Ratio:** Another feature, which has strong impact on dividend behavior, is the debt equity ratio (capital structure). The demand for external finance usually arises in a company on account of constraints imposed by its internal resources. The higher the internal flows, given the investment requirements, lesser will be the demand for borrowings and vice-versa. Internal flows are generated by net profits after tax and dividend. That is, higher the dividend, higher the demand for borrowings. On the other hand, lower dividends would mean less demand for borrowings and low debt equity ratio. This variable has received

emphasis in the work of Dhrymes and Kurz (1964), Mahapatra and Sahu (1993), Mahapatra and Panda (1995).

- **Interest Payment:** Another variable which may have a direct bearing on the dividend policy of the firms is the amount of interest. A rise in interest payment by a company would depress its dividend payment. Brittain (1966) found dividends to be negatively related to interest payment.
- **Change in Sales:** Change in sales measure the difference between the current period sales to the previous period sales. As suggested by Brittain (1966), rapid gains in earnings as indicated by sales change might make firms more cautious. Firms feel that the rapid growth can not be maintained and they might adopt more conservative dividend policy. In case of banking industry, total business replaces the term sales; total business stands for total of deposits and loans.
- **Share Price Behavior:** There have been many attempts in the past to test whether or not the share price of a company affects its dividend policy (Khurana, 1985; Mahapatra and Sahu, 1993). This variable is expected to have negative relationship with the dividend policy of a company.

CONCLUSION

- Analysis made with the help of various econometric tools came to some concrete results regarding dividend decisions of Indian Banking and IT Industry. It has been summed up that both the industries follow stable dividend policy as lagged dividend has emerged as the significant factor. In case of Banking Industry, Lagged dividend, change in total business and interest are the factors demonstrating significant effect over dividend decisions of Indian Banking Industry. Change in sales is showing positive relation with dividend. It was established by Brittain (1966) that growing sales make firms more cautious and they adopt conservative dividend policy. But it is not the case in Indian Banking Industry. Interest is linked negatively with dividend illustrating that higher interest payment will lead to a reduction in the after tax earnings available for dividend and vice-versa. Average target payout ratio of the Indian Banking Industry is 46%. Adjustment factor is showing significantly high speed of the industry to reach target payout ratio; it is only 0.27 on an average. It indicates that management of Indian Banking Industry is keen to reach target payout ratio in shortest time. Granger causality test has specified only two factors affecting dividend policy of Indian Banking Industry. These are PAT and interest.
- For IT industry, Lagged dividend and PAT are the factors that are demonstrating significant effect over dividend decisions. Target payout ratio of the industry has increased to 37% in 2007-08 from negative number in 1998-99. An unusual outcome of the study is negative average target payout ratio. But the industry is a growing industry that came into existence a few years back. For the reason abnormal outcome of the target payout ratio should not be

considered as the ratio has improved in the last three years. Adjustment factor is showing very low speed of the industry to reach target payout ratio; it is only 0.05 on an average. Analysis indicates that the industry is improving in terms of dividend payments also. Granger causality test has specified only two factors affecting dividend policy of Indian IT Industry. These are PAT and depreciation.

- Dividend policy continues to be an often-conversed area between financial economist and corporate managers. The theories and justifications that have emerged have resulted in an enormous theoretical and empirical body of research with hundreds of papers. But the controversy over the subject motivates the conduct of research; where answers to many questions are still not clearly developed. Dividend policy of Indian Banking and IT Industry has been analyzed using Backward Elimination Regression Moedl, Modifide Lintner's Model and Granger Causality Model. The study may be used as a ready reference for future researches on the area under discussion. Further, for the policy makers of both the Industries, the study may prove to be useful for re-sketching their dividend policy keeping in view the results and discussions made.

MAJOR FINDINGS

- EBIT/EPS maximization is the most imperative objective of Indian Banking and IT industry that they follow while making investment decisions. In spite of the known demerits of the technique, industries in India still continue to appraise their project keeping in view this objective.
- It may be held that Indian Banking Industry is still away from sophisticated capital budgeting techniques. Majority of banks are using Payback period and Break even analysis techniques as the reliable technique for the appraisal of investment projects. However, they use IRR method which is based on cash flows, but still away from NPV method of investment appraisal. Moreover, it was also found that none of the public sector banks make use of NPV technique. Only private sector has started appraising their projects using this discounted cash flow technique.
- Indian IT Industry makes considerable use of DCF techniques as revealed in the survey results. The industry has also instigated use of latest technique, i.e. Economic Value Added (EVA) for investment appraisal. It may be upheld that IT industry depicts the growing trend in the use of value management models of investment appraisal; which indicates a gradual shift in the trend of appraisal techniques.
- Analysis base on the liquidity and the working capital management performance of the Indian Banking and IT Industries is conducted for the period 1998-99 to 2007-08. The results for Banking industry show that balance sheet ratios can vary widely among institutions with identified liquidity concerns. Liquidity need of Federal Bank, Karnataka Bank and South Indian Bank have been very less throughout the period of study; as they have

kept very less amount of demand deposit in total deposit. To add to this, South India Bank and Karnataka Bank are keeping much higher liquid assets to demand deposit ratio than the industry average. At both the fronts, these banks are taking proper care of their liquidity position. Bank of Baroda, Bank of Rajasthan, SBI and UTI Bank are keeping higher percentage of their assets as liquid than other banks. Most of the banks have increased loans to total asset ratio in recent years. Top banks among them are CUB, Federal Bank, IDBI Bank, South Indian Bank and UBI; which enhances the liquidity needs of the particular bank as loans represent illiquid assets. However, given the changing balance sheet structure and uniqueness of individual bank funding strategies, poor ratios do not necessarily mean banks are under liquidity pressures, and favorable ratios do not always depict a strong liquidity position.

- For IT industry analysis, relation between Cash Conversion Cycle (CCC) and Return on Capital Employed (ROCE) has been established. It was identified that during 1999-2008, the receivable days in Indian IT industry has increased tremendously. All topnotch companies of the industry, namely, Infosys, TCS, Wipro and HCL are maintaining much lesser receivable days than industry average. The IT companies which are making use of creditors' capital in its operations or in other words, maintaining high payable days than average industry numbers for long duration are HCL, GTL, Financial Technologies, NIIT, Onward and Ramco. Whereas, all other top companies including Infosys, TCS, Wipro make timely payment to their suppliers and maintain short payable days cycle. In 1998-99, average days of working capital or cash conversion cycle were 73.25, and in 2004-05, it increased to 164.94, afterwards, again it declined to 71.33 days in 2007-08. The regression and correlation between CCC and ROCE illustrates that there exist negative relationship between these two parameters. It is consistent with the results of prior studies and establishes that Indian IT Industry will have to manage its working capital efficiently to earn higher returns.
- Analysis of capital structure or leverage positions of Indian Banks reveals that leverage ratios of Indian banks have increased considerably during the period under study. Two independent variables, specifically, Profitability and Growth Opportunities are the chief fragments that generally direct leverage decisions in this industry. Nevertheless, these leverage decisions are not straightforward. They are complicated and the researchers need to add more light to it keeping in view the basic characteristics of the Banking Industry.
- Besides, leverage ratios of Indian IT companies have decreased considerably during the period under study. Average debt equity ratio has decreased to 28 percent in 2007-08 from 50 percent in 1998-99. Four independent variables, specifically, Tangibility of assets, Size of the company, Volatility and Non debt tax shield are the major aspects directing capital structure decisions in the industry. Other specific results of the study provide certain key observations, for example, both the models, fixed effect (firm) and fixed effect (firm and time), are showing that profitability is having positive impact on capital structure. The result is in favor of agency models and against pecking order theory. The regression coefficient of

size of company is showing significant impact of this variable on decisions related to capital structure of Indian IT industry. However, it has negative relation with capital structure. This is in opposition to what has been established by previous studies (Rajan and Zingales, 1995).

- In capital structure studies based on Indian corporate, profitability and asset structure were found to be most significant factors deciding the capital structure, instead of firm size and growth opportunity as depicted by studies carried out in developed countries. Present study largely confirms the results of earlier Indian studies vis-à-vis IT Industry but this is not the case with Banking Industry; Banking Industry results confirm the results of research carried out in developed countries.
- Cost of capital of Indian Banking and IT industries has been estimated by employing CAPM. Risk free rate, market premium and beta fundamental components of this model. It was observed that risk free rate, which significantly affects cost of capital has decreased to 7.524 percent in 2007-08 in comparison to 9.514 percent in 1998-99. Moreover, it has shown wide fluctuation during the period under study. SBI, Federal Bank Ltd, Bank of India, Punjab National Bank, Bank of Baroda, Canara Bank, IDBI Bank and Syndicate bank are the banks with highest beta and in turn highest cost of equity. HDFC Bank, ICICI Bank, ING Vysya BANK, Karur Vysya Bank, City Union Bank, Kotak Mahindra Bank, Lakshmi Vilas Bank, State Bank of Travancore and State Bank of Bikaner and Jaipur are the banks with lowest cost of equity. Finally, it may be perceived that public sector banks are showing higher cost of equity than private sector banks.
- Furthermore, it was recognized that the cost of debt has been reducing during the 1996-97 and 2005-06. Therefore, the banks that have increased debt component in their capital were able to maintain overall cost of capital low. The list of this type of banks includes ICICI Bank, Syndicate Bank, UTI Bank, Union Bank of India, Indusind Bank, Bank of Rajasthan and ING Vysya Bank. Several banks that have maintained almost same level of debt equity proportion during the period of study, their overall cost of capital has increased due to increase in cost of equity. Few banks have increased their equity content; therefore, these have to bear increase in their overall cost. These banks are Centurion Bank of Punjab Ltd, City Union Bank Ltd, Dhanalakshmi bank Ltd, Federal Bank Ltd, Karnataka Bank, Karur Vysya Bank and Lakshmi Vilas Bank. However, increase in equity or debt content in Banking has wide spread effect and has to be viewed vis-à-vis risk management practices of the banks, which is out of purview of this study. In nutshell, findings exhibit that the major private sector banks have low cost of equity and overall capital than public sector banks. They have increased debt content in their total capital as the cost of debt has decreased. Risk level i.e. beta is also low in private sector banks. Furthermore, they have been intelligent to maintain their cost of debt below average cost of debt of Banking Industry.
- In case of IT industry, only 25 percent of IT companies have shown above market level risk presented in the form of beta; which is a measure of systematic risk inherent in a particular

security in relation to market return. And this is important to note especially when IT index is among the indices giving highest return. Wipro Ltd, Satyam Computers, TCS, Tata Elaxi, Polaris Software Ltd, Infotech Enterprises Ltd and Orient Information Technologies are the IT companies with highest cost of equity. Numerous IT majors have reduced debt content in their capital structure to zero and so the cost of debt; business risk is immense in this industry and that's why debt level is kept low or zero by large number of players of the IT industry. There are a few companies that have maintained above 25 percent level debt in their capital structure, namely, C M C Ltd, Marrs Software International Ltd, Onward Technologies Ltd, Ramco Systems Ltd and Rolta India Ltd. This is the reason why the overall cost of above-mentioned IT companies has not increased in spite of tremendous increase in cost of equity capital during this period. Finally, study shows that the IT sector is giving high returns with low level of risk.

- The study of equity valuation is done based on earnings and book value of equity on Indian Banking and IT industries. The results demonstrate that earnings and book value of equity were not impacting valuations of the Indian Banking industry. For banking industry, EPS turned significant during 2005-08 only, prior to this period it had no impact on market price of the stocks. Moreover, book value of equity had played no imperative role in deciding market capitalization of the industry through out the period of the study. In case of Indian IT industry, EPS has played significant role through out the period of the study. In other words, market prices of IT industry well reflect earnings of the industry.
- Analysis made regarding dividend decisions of Indian Banking and IT Industry illustrates that both the industries follow stable dividend policy as lagged dividend has emerged as the significant factor.
- In case of Banking Industry, Lagged dividend, change in total business and interest are the factors demonstrating significant effect over dividend decisions of Indian Banking Industry. Change in total business is showing positive relation with dividend. It was established by Brittain (1966) that growing sales make firms more cautious and they adopt conservative dividend policy. But it is not the case in Indian Banking Industry. Interest is linked negatively with dividend illustrating that higher interest payment will lead to a reduction in the after tax earnings available for dividend and vice-versa. Average target payout ratio of the Indian Banking Industry is 46%. Adjustment factor is showing significantly high speed of the industry to reach target payout ratio; it is only 0.27 on an average. It indicates that management of Indian Banking Industry is keen to reach target payout ratio in shortest time. Granger causality test has specified only two factors affecting dividend policy of Indian Banking Industry; these are PAT and interest.
- For IT industry, Lagged dividend and PAT are the factors that are demonstrating significant effect over dividend decisions. Target payout ratio of the industry has increased to 37 in 2007-08 from negative number in 1998-99. But the industry is a growing industry that came into existence a few years back and the target payout ratio has improved in the last three

years. Adjustment factor is showing very low speed of the industry to reach target payout ratio; it is only 0.05 on an average. Analysis indicates that the industry is improving in terms of dividend payments also. Granger causality test has specified only two factors affecting dividend policy of Indian IT Industry and these are PAT and depreciation.

RECOMMENDATIONS

- Implementing best corporate finance practice has also been considered as an important task by the corporate. The consulting firms are increasingly creating new metrics; and there is a flood of the new measures thought to be best corporate finance practice. The present study based on various econometric tools reveals practices of Indian Banking and IT industries and thereby this study can inspire professional in these industries in improving their actions in relation to corporate finance. In addition, academics may also get direction in extending and refining existing notions. Here an attempt has been made to sketch a few recommendations:
- The shareholders' value creation is the leading objective of approximately all the activities carried out in a company. Taking corporate finance decisions in the best possible manner and implementing them in time support the ultimate objective to be achieved. Companies do use a combination of many ways of corporate finance decisions that are applied differently from one company to another. The choice of using those ways also varies from company to company even in the case where the same way was chosen.
- Majority of Indian banks are relying upon Pay Back Period and Break even analysis, whereas, modern techniques including NPV and EVA are put on hold by the industry; there is need to change the pattern of appraisal in Indian Banking Industry. Indian Bankers may re-think upon the methodology adopted by them appraise their investment projects and move to modern and globally competitive techniques, like, NPV and EVA.
- Numerous IT companies have brought methods like NPV into play. However, highly sophisticated investment appraisal techniques like EVA are still lagging behind and need to be promoted for better selection of projects and fulfilling shareholders' expectations, particularly in IT industry as major part of business is from developed world.
- Liquidity need of the banks is an area that requires sincere and regular contemplation on part of professionals and academicians as well. Liquidity of banking system impacts whole economy, rather, it may have global impact, as what is evident from current US liquidity crunch. Only a handful of banks have adopted liberal liquidity management policy in terms of maintaining more liquid funds in comparison to total demand deposits. Majority of banks are following aggressive liquidity policy or they keep less amount blocked in liquid securities to enhance their overall profitability. They have also increased amount of loans in their overall profitability. They have also increased amount of loans in their total assets, it points towards two sided pressure on their liquidity. Enhancement of loans in total assets may be justified with their profit motives; however, keeping fewer sums in liquid securities may

prove detrimental in long run for these banks and they may need to revisit their liquidity policy.

- For IT industry, the regression and correlation between CCC and ROCE illustrates that there exist negative relationship between these two parameters. It may be established that most of the companies are well managed in terms of working capital. They make timely payments to their creditors and receive timely payments from clients. Industry needs to maintain this practice in future as well. However, during 1999-2008, the receivable days in Indian IT industry has increased tremendously. But, all topnotch companies of the industry, namely, Infosys, TCS, Wipro and HCL have been successful in maintaining much lesser receivable days than industry average. It indicates that other not so successful companies are facing problems or their receivable days have increased during the period of last ten years. These companies might have to arrange funds from other sources to meet their business requirements because of this delay in receiving payments from clients. Therefore, there is a need to move towards a more favorable and may be stringent receivables policy for reduction of such delays in receiving payments.
- Capital structure or leverage decisions result in increased EPS or may increase total risk of the company manifold during tough times and reduce elbow space. Therefore, companies are required to decide on the matter keeping in view general macro economic factors as well as individual performance in terms of cash flows, certainty and many more performance related variables. Leverage ratios of Indian banks have increased considerably during the period under study. Nevertheless, these leverage decisions are not straightforward. They are complicated and the researchers need to add more light to it keeping in view the basic characteristics of the Banking Industry.
- Leverage ratios of Indian IT companies have decreased considerably during the period under study. Business risk of the industry is very high due to its peculiar feature; therefore, most of the companies prefer to keep their financial risk low. However, few companies have increased debt content in their capital structure during the period of the study, they need to re-think, especially, after the global turmoil industry has just faced.
- In case of cost of capital, use of CAPM is wide in both the industries examined in the study. However, cost of debt for single period varies in different companies, it gives scope to companies to look into the matter and find out the reasons why some are paying more and some less interest rates. Interest rates charged are for sure based on many company specific factors, like performance and management and future prospects. Companies may consider the point and seek to reduce this difference.
- It is identified through the analysis of cost of equity capital of the Indian Banking industry that public sector banks are shoeing higher cost of equity than private sector banks. It implies highest beta or higher risk perceived by the investors in these banks. It was recognized that the cost of debt has been reducing during the 1996-97 and 2005-06. Private sector banks have increased debt content in their capital structure, which has reduced their

overall cost of capital, at the same time leaving less elbow space and reducing equity content. Though, it is a matter of their risk management practice, risk may be judged by investors keeping in view all the factors like management, performance and risk management practices.

- Dividend distribution is immense in Indian Banking industry, mainly due to huge share of Indian government in public sector banks. Results illustrates that these decisions are dependent upon Profit after tax and interest payments. Banking industry needs to be more cautious in taking this decision as money market rates are sky rocketing and the industry may reduce expenses on money market if can decide on dividend keeping it in consideration.
- Indian IT industry decides about their dividend payments keeping in consideration Lagged dividend and PAT. Target payout ratio of the industry is 37% in 2007-08. Several companies of the industry came into existence a few years back and the target payout ratio of the industry has improved in the last three years. Relatively new companies need to be careful before distributing their profits as dividend.
- In order to sum up the discussion, it may be submitted that the study has incorporated corporate finance practices of Indian Service Sector, namely, Indian Banking and Information Technology Industries and has made recommendations in light of analysis made. The application of the study may be extended to other service industries, including financial industries like insurance, mutual funds and technology industries like biotechnology and computer hardware.

SCOPE FOR FUTURE RESEARCH

The present study is mainly confined to Indian Banking and Information Technology industries for a period of ten years only. The analysis is base on primary as well as secondary data extracted from structured questionnaire, 'Prowess' Database and various websites. Various econometric tools and financial models have been applied to the data for making inferences. However, study leaves scope for future research to be carried out in the field of corporate finance in these two selected industries in detail, these industries belong to service sector and that too with divergent characteristics. Moreover, corporate finance practices of other industries are required to be studied and analyzed to recommend best practices.

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