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Creditworthiness is a Technique of Cash Management- A Study on IT Sector

Somnath Das*

Abstract

It is the age of competitive environment. Sound credit management approach can ensure success in this environment. Credit analysis is actually risk analysis. In the competitive environment and changing scenario, every business organisation has been trying to overcome such situation. Due to failure in competition, market share, and economies in business, many small businesses walk in the path of mergers and acquisitions, and big giant organisation take the advantage. Now the companies are diversified into variety of products and services. Therefore, to make the organisation profitable some objective information is required. As a business firm grows or is taken over by giant organisations, the decision making process becomes more complex and centralised and the old traditional methods of credit analysis become misleading. So in this paper we tried to give importance to the credit management.

Keywords: Cash Management, Creditworthiness, Liquidity, Risk Description Model

Introduction

It is the age of credit. Nothing can be possible in the world of business, without the liberal extension of credit. It is an indispensable convenience or a necessity in our scheme of living. Use of credit is a complex phenomenon and not a recent phenomenon. Use of credit can be found as early as 1300 B.C. in the civilisations of Babylon, Assyria, and Egypt. Today credit system is the advancement of credit system of past. But, common people have wrong conception or negative idea about uses and application of credit. 'Buy now-pay later' or promise to pay in future for immediate goods existed in the earlier agricultural societies.

Some transactions could not happen, but implementation of credit makes it possible. At present we are using credit for every aspect of our livelihood and also for smooth running of the business. Giving credit means you are taking risk. In order to compete in today's competitive market, credit management helps the organization move towards its success. Credit analysis is actually the risk analysis. So importance should be given to the credit management because today's business world is very complex and the scenario is changing frequently.

In order to beat the competition, protecting the market share and securing economized business have witnessed increasing numbers of mergers and acquisitions that convert small business into divisions of large corporations. An organization being taken over by another big organisation and the credit analysis of the first organisation does not matched with second one and also not feasible as well as cost efficient. Practically these motives result in necessity of credit management.

In most of the cases it is seen that information pertinent to the credit decision making is not available from the credit applicant. Thus the companies take decision on the basis of past experiences or from the general impression of the customer. Proper evaluation of risk regarding credit granting decision becomes very important before the commencement of sales because once the credit is accepted by creditor organisation of its credit applicant, servicing and loss mitigation technique can control the future losses only to a limited extent. The pros and cons of the situation can affect the decision.

The credit analyst must consider the nature and type of the business as well as the applicant in his personal

* Assistant Professor, Commerce, Rabindra Mahavidyalaya, Champadanga, Hooghly, West Bengal, India.
E-mail: somnath211@gmail.com

judgement. Now, on what basis the creditor organisation should asses the credit worthiness of its credit applicant? A survey conducted in this respect shows that there is no such fixed or particular or sophisticated basis of credit evaluation, whatever may be the size of the organisation. Some organisations depend on past experience while some follow the behaviour or impression of customer. The next most popular method is LAPP method, the most widely known and age-old method in four 'C's of credit. Whatever may be the basis of evaluation the two major considerations in credit analysis are the applicant's ability to business and his general financial position. Thus, it implies to both, the financial and non-financial sides of the applicant. In the non-financial side of the applicant,are the managerial capabilities of the applicant or the activities to operate business. In financial aspects, the credit analysts generally judge the liquidity and debt paying ability of the credit applicant. We also know that the data represented by the financial statement do not measure the ability of the manager regarding its business i.e. the soundness or weakness of its financial position.

Therefore, the data required for the credit analysis must be changed or adjusted subject to the requirement. The next step is application of some analytical procedure to the financial figure for judging creditworthiness of applicant. Developing the financial as well as statistical technique isfairly recent and still in process. The generally used financial tools are ratio analysis, sources and application of fund analysis, trend analysis, common size statement, and other analysis determining the financial position of the applicant.

Analysis of credit from financial statement is a complex process. It helps in any credit decision. Absolute data presented in the financial statement provides the credit manager in valuable information that can be helpfully combined with the information derived from other sources. Use of financial statement for the purpose of credit extension is not a recent phenomenon. In early 1870's mercantile agencies were able to obtain some neatly arranged financial statement from customer/ credit applicants. From that with the pressure of those agencies, the practice of issuing financial statement as a basis for credit extension is developed through the 1870's and 1880's mercantile agencies. It should be remembered that when the seller is submitting its financial statement first time then it is not possible to determine credit decision. In United States, the National Association of Credit from its very inception insisted that credit manager should ask for financial statement of their customers and for this purpose, in 1898 they published standard ' property statement' (blank balance sheet) form for the use of its members. The practice of requesting financial statement from the customer was prevalent from that timebut it was not widespread. From that the credit managers realised the need of their customers' financial statement which is useful for collecting credit information and the customers realised the fact that their suppliers are entitled to ask and receive their financial statement at the time of granting credit. Invaluable information from financial statement can create problems if financial statement is being usedas source of information. So credit manager demanded accounting data only. But, it is costly for small business. Audited information is also questionable as in small business auditor get much information supplied by the manager 'on trust'. In that way, some concerns are still reluctant to submit copies of their financial statement and reveal the bare minimum only.

Review of Literature

Alexander Bathory in his book, 'The Analysis of Credit' developed ratio based models of credit analysis. He opined that the greater the quality and quantity of data at the analyst's disposal, the better the credit opinion. For credit analysis he also suggested eight different ratios. These ratios are profitability, capital adequacy, liquidity, comfort margin, debt capacity, and priority debt service ability. He developed the model in such a way that the accuracy and relevance of the model's findings are directly proportional to the age and quality of the historical data. He argued that the model is also intended as a general diagnostic tool and it can be used by any commercial or industrial sector with the exception of banks, insurance companies or finance sectors.

Nilsen(2002) showed that the percentage is high in accounts payable to the total liability. In particular, U.S. manufacturing firms, about 13%. In this paper it is found that the share of accounts payable in the total liability is about 25% among Taiwan's firms (with the exclusion of financial industry). Such widespread trade creditwarrants deeply analyze both its nature and its effects on the economy.

Admati & Pfleiderer (1986) showed that a non-discriminating monopolistic seller of information is reluctant to invest in gathering information. Moreover, he will also tend to produce noisy information since the more accurate the information, the faster it is reflected in the securities prices and therefore the less valuable it is for the buyer.

Lizzeri (1999) shows that a monopolistic certifier does not reveal any information since it wishes to attract even the lowest types of firms. In such a case any firm refusing to pay the certifier discloses its low quality. Lizzeri also shows that competition among certifiers can lead to full information revelation.

Amitava Basu (2011) made a study on eight cement companies using the Bathory's risk description model. The model is developed using four years data. In this study data have been collected from secondary sources i.e. The Stock Exchange official Directory of Bombay Stock Exchange and Capitaline database. In this study the main focus is given to the liquidity, profitability, and capital adequacy. The model also showed that these three ratios influenced the score of individual companies. He also showed that where these factors are good they obtained high score.

Objectives of the Study

Credit analysis is not a simple procedure. For determining credit analysis we always have to consider the nature and type of business as well as the judgement of the manager. Credit analysis is actually risk analysis. Traditional methods of credit analysis are not feasible and their costs are very high. Generally, credit granting decision is based on past experience and behaviour of a customer. But, proper evaluation of risk in case of credit granting decision is very much important before the commencement of sales because if sales are made then nothing to do by the credit firm other than applying loss mitigation technique for controlling future losses. Good credit rating increases the market share value of the companies. It helps the companies to collect funds very cheaply. More specifically the objectives of the study are as under,

1. To measure the total average score with the help of eight different ratios concentrating on company's liquidity, profitability, and capital adequacy. Such ratios are a) Net profit to Capital employed ratio, b) Net tangible assets (Shareholders fund) to total liabilities (long term + short term debt) ratio, c) Net profit to current liabilities ratio, d) normalized working capital to credit exposure ratio, e) equity to current liability and credit exposure ratio, f) Net assets to credit exposure ratio, g) Net profit and Depreciation to Current Debt ratio.
2. To measure the credit score (CS) of the selected companies from five different sectors with the help of total average scores.
3. To analyse the cash flow status of the selected companies in order to highlight the influence of cumulative profitability and cash flow with the help of Bathory's – 'risk description model'.
4. To measure the degree of relationship between cash as a percentage of current assets and liquidity ratio, sector wise and as a whole of the companies under study by using Pearson's simple correlation technique and to test such coefficient.
5. To analyse whether the creditors firm after accepting of credit can control the future losses with the help of loss mitigation technique.
6. To analyse how to transit smoothly from one stage to another after weighting pros and cons are occurred in the initial state of decision.

Methodology of the Study

Five popular companies from IT sector have been selected. The data of the selected companies for the period 2002 to 2011 used in this study have been taken from the secondary sources i.e. Capitaline Corporate Database of Capital Market Publishers (I) Ltd. Mumbai.

To develop a credit evaluation model from the financial statement of the selected companies, we use Bathory's – 'risk description model' with small changes. In actual model the main influencing factors are accumulated profitability and inventory but for our purpose we use the cash flow instead of Inventory. Eight different ratios are calculated from the financial statement as stated above. In determination of ratios, emphasis has been given on the firms' liquidity, profitability and capital adequacy. For the purpose of our study five companies each from five different sectors are selected, as stated earlier, with the help of purposive sampling procedure. The model is prepared on the basis of ten years data; it will be more predictive and reveals the appropriate creditworthiness of

the companies.

For analyzing the date statistical tools like arithmetic mean, percentage etc. and statistical technique like Pearson's simple correlation analysis and statistical test like 't' test have been applied at appropriate places.

Risk Description Model

1. Net Profit / Capital Employed = Profitability (Annual)
2. Net Tangible assets (Shareholders Fund) / Total Liabilities (Long term + Short term debt) = Profitability (Cumulative)
3. Net Profit / Current Liabilities = Liquidity
4. Normalized working capital / Credit Exposure = Capital Adequacy.
5. Equity / Current Liability + Credit exposure = Capital Adequacy
6. Net Assets / Credit exposure = Comfort Margin
7. Total assets / Total liability + Credit exposure = Debt Capacity
8. Net Profit + Depreciation/ Current Debt = Priority debt service ability.

In the first ratio we find out the ratio showing profitability. It is also known as return on capital employed. Here, net profit means profit after tax but before interest. In this ratio net profit is placed on capital employed for the measurement of profitability of the current year. Second ratio is calculated by placing the net tangible assets on total liabilities. Here, net tangible assets signify the shareholders fund and total liabilities is equal to the long-term debt plus total short-term debt. The second ratio reveals the measurement of cumulative profitability. In this model we consider both the profitability for current year as well as profitability for accumulated periods. We often use the current ratio and quick ratio as the measure of liquidity so we have not used these ratios in this study. These ratios are less impressive in respect of creditworthiness of an organisation. Here, we use the net profit to current liabilities ratio as the indicator of liquidity. Net profit of an organisation generally includes some items additional to current assets such as surplus after accounting for depreciation and extra ordinary items. In current liabilities we consider the items which are payable within a particular accounting period. Another liquidity ratio i.e. fourth ratio is computed by placing Normalised Working Capital to over credit exposure. And normalised working capital is calculated by deducting the stock from net current assets (i.e. Net Working Capital).

Usually, in case of quick ratio, we place the current assets less stock over current liabilities. In this case we have already deducted current liabilities from current assets for calculating net current assets. If we place the normalised working capital over current liabilities plus credit exposure – it will portrays a wrong picture. So we placed the normalised working capital over credit exposure. This would show how much cover a hard measure of latest liquidity can afford. Normalised working capital can be calculated by deducting hundred percent of stock or less liquid stock like raw materials and WIP in case of a manufacturing company. In case of retail companies the deductable portion may be 25 percent. But in this study we develop the model by deducting 50 percent of stock from net current assets. The amount of credit asked by the customer is termed as credit exposure. In preparing the model we have taken 25 percent of current assets as credit exposure. The third and fourth ratios indicate the short-term debt paying capability of the organisation.

Fifth ratio measures the capital adequacy of the companies selected under study. Capital adequacy of the organisation measures the long-term capital or permanent capital. Generally, long-term capital is not used to meet the short-term obligation of the organisation. Fifth ratio in this model is used in respect of equity stake. In many situations such equity stake can provide the organisation further borrowing powers. Very roughly speaking, if equity is greater than 50 percent of capital employed, further borrowing might reasonably be represented by the difference between actual level of equity to capital employed and 50 percent. In calculating the ratio credit exposure is added with current liabilities to provide the most serve total of firm's obligation. In the sixth ratio, net assets are placed over credit exposure. In the model it is termed as comfort margin. In the fourth ratio, normalised working capital is placed over credit exposure. Most of the cases, it produces comparatively high values and probably negative. As we know that stock is a very substantial part of current assets and we deduct stock from net current assets, there is a very high probability of a negative figure. It is expected that net assets will provide a significantly large amount of cover for small credit exposure. The resulting ratio, therefore, should provide

high positive scores and it affects the scores in our model to compensate for the high negative value provide by the normalised working capital to credit exposure ratio.

In the seventh ratio total assets is placed over total liability plus credit exposure. It signifies the debt capacity of the organisation. Here total liabilities include both short-term liabilities and long-term liabilities. In the ratio total liability also include the credit exposure. It indicates the safety margin taking into consideration of all known obligations including the credit asked by the customer. Such a measurement would give a rough idea of break-up value of the company where all obligations, including our original exposure to crystallize simultaneously. The ratio then gives an indication of safety margin and debt capacity both of which are functions of liquidity, capital adequacy and profitability.

Finally, in the eighth ratio the treatment of priority debt items is measured by contrasting current debt with financial flow that will be servicing it. Computing gross cash flow from modified accounting information will be difficult without a detailed profit and loss account showing depreciation. So, gross cash flow is obtained by adding the depreciation with net profits. Simply, the ratio is calculated by placing the financial flow (gross cash flow) over current debt. Earlier we discussed how to calculate gross cash flow. Generally, from experience it is observed that all the current liabilities are not paid at a time, so in calculating current debt in this model we consider only twenty percent of company's current liabilities. It shows the treatment of priority debt items and it is matched with that amount which will be used to servicing it.

In our model eight ratios are taken into consideration by giving equal weight to them.

The resulting formula would be denoted as –

$$CS = L^* \sum xi$$

CS = Credit Scores

Xi = Variables (I = 1 to 8)

L = Constant Multiplier = 100/8 = 0.125

The developed model is thus = $0.125^*\sum xi$

Risk Description Model

Here, NWC = Normalised Working Capital, NTA = Net Tangible Assets,

E = Equity Shareholders fund, CL = Current Liabilities, TL = Total Liabilities

CR. EXPOSU = Credit Exposure (0.25% of CA), CD = Current Debt

D = Depreciation, NP = Net Profit, NA = Net Assets, CE = Capital Employed.

Findings of the Study

The main purpose of calculating ratios is to judge the firm's liquidity, profitability, and capital adequacy. From the 'risk description model', scores are calculated individually for each of the selected companies under study. Tables are prepared consisting of different ratios to calculate scores. The model clearly showed that how the liquidity, profitability and capital adequacy factors influenced the scores of individual companies. In case of all the companies from five different sectors, where all the factors are good, they obtained high score. On the contrary, the companies where two factors are good but the impact of one or two bad factor / factors outweighed the influence of good factors.

This model is self-explanatory in nature. In this case our objective is to gives an idea to the credit analyst, about extracting best result of using financial statement.

It is found from Table1 that in IT sector the average score of ratio x_1, x_2, x_3, x_4, x_5, x_6, x_7 and $x_8$in Philips India Ltd. (Philips)are 0.1879, 0.9567, 0.229, 65.607, 1.1326, 259.22, 2.0051 and 1.7122 respectively. Out of these, ratio x_6 registered the highest score i.e. 259.22 and ratio x_1 is the lowest which is 0.1879 score. The total of average score is 331.05. The credit score of Philips is 41.382.

From Table 2, it is found that the average score of ratios x_1, x_2, x_3, x_4, x_5, x_6, x_7 and x_8 in Asian Electronics Ltd. (Asian) are 0.0425, 4.1337, 0.4173, 262.02, 4.6422, 268.64, 7.56 and 3.4261 respectively. Out of these, ratio x_6 is the highest, whose score is 268.64 whereas ratio $x_1$is the lowest by scoring 0.0425. The total of average score is 550.9. The credit score of Asian Electronics Ltd. is 68.86.

Table3 reveals that the average score of ratio x_1, x_2, x_3, x_4, x_5, x_6, x_7 and x_8 in Wipro Ltd. (Wipro) are 0.2553, 2.8177, 1.5202, 182.82, 5.1936, 550.28, 4.1129 and 1.7369 respectively. The highest score registered by ratio x_6 (550.28) while ratio x_1 (0.2553) is the lowest in Wipro. The total of average score is 748.73. The credit score of Wipro is 93.592.

Table4 shows that the average score of ratio x_1, x_2, x_3, x_4, x_5, x_6, x_7 and x_8 in CMC Ltd. (CMC) are 0.2345, 0.8938, 0.3456, 120.74, 1.2437, 236.33, 2.0051 and 1.9353 respectively. Out of these, ratio x_6 (236.33) is the highest and ratio x_1 (0.2345) is the lowest. The total average score is 363.73. The credit score of CMC Ltd is 45.466.

It has been found from Table5 that the average scores of ratio x_1, x_2, x_3, x_4, x_5, x_6, x_7 and x_8 in Videocon Group (Videocon) are 0.0913, 2.8602, 0.5376, 210.54, 2.9976, 347.39, 6.4592 and 3.4714 respectively. The highest score is revealed by ratio x_6 which is 347.39 and the lowest score is registered by ratio x_1 which is 0.0913. The total average score is 574.35. The credit score of Videocon is 71.794.

Therefore, from Tables 1, 2, 3, 4 and 5, we can conclude that in IT sector the cumulative profitability condition is good in Asian whereas regarding current profitability condition Wipro is the best. On the other hand from the point of view of debt paying capacity, Asian is the best. The score revealed that in IT sector the highest credit score is obtained by Wipro and it is followed by Videocon, Asian, CMC, and Philips in that order. The score is plotted in Fig.1.

Table 1: Risk Description Model – Ratio Measurement(Philips)

RATIOS	*DESCRIPTION*	*AVG. SCORES*
X1	NP/CE	0.1879
X2	NTA/TL	0.9567
X3	NP/CL	0.229
X4	NWC/CR.EXPOSU	65.607
X5	E/CL+CR.EXPOSU	1.1326
X6	NA/CR.EXPOSU	259.22
X7	TA/TL+CR.EXPOSU	2.0051
X8	NP+D/CD	1.7122
TOTAL AVG SCORES		331.05
CREDIT SCORES(CS)		41.382

Table 2: Risk Description Model –Ratio Measurement(Asian)

RATIOS	*DESCRIPTION*	*AVG SCORES*
X1	NP/CE	0.042
X2	NTA/TL	4.134
X3	NP/CL	0.417
X4	NWC/CR.EXPOSU	262
X5	E/CL+CR.EXPOSU	4.642
X6	NA/CR.EXPOSU	268.6
X7	TA/TL+CR.EXPOSU	7.56
X8	NP+D/CD	3.426
TOTAL AVG SCORES		550.9
CREDIT SCORES(CS)		68.86

Table 3: Risk Description Model – Ratio Measurement(Wipro)

RATIOS	*DESCRIPTION*	*AVG SCORES*
X1	NP/CE	0.2553
X2	NTA/TL	2.8177
X3	NP/CL	1.5202
X4	NWC/CR.EXPOSU	182.82
X5	E/CL+CR.EXPOSU	5.1936
X6	NA/CR.EXPOSU	550.28
X7	TA/TL+CR.EXPOSU	4.1129
X8	NP+D/CD	1.7369
TOTAL AVG SCORES		748.73
CREDIT SCORES(CS)		93.592

Table 4: Risk Description Model – Ratio Measurement(CMC)

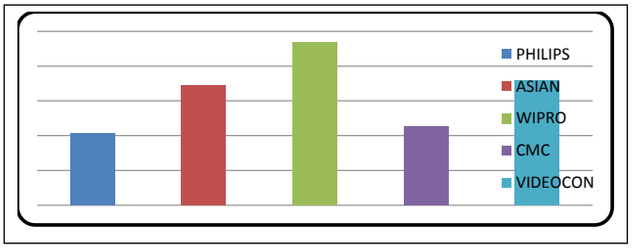
RATIOS	*DESCRIPTION*	*AVG SCORES*
X1	NP/CE	0.2345
X2	NTA/TL	0.8938
X3	NP/CL	0.3456
X4	NWC/CR.EXPOSU	120.74
X5	E/CL+CR.EXPOSU	1.2437
X6	NA/CR.EXPOSU	236.33
X7	TA/TL+CR.EXPOSU	2.0051
X8	NP+D/CD	1.9353
TOTAL AVG SCORES		363.73
CREDIT SCORES(CS)		45.466

Table 5: Risk Description Model – Ratio Measurement(Videocon)

RATIOS	*DESCRIPTION*	*AVG SCORES*
X1	NP/CE	0.0913
X2	NTA/TL	2.8602
X3	NP/CL	0.5376
X4	NWC/CR.EXPOSU	210.54
X5	E/CL+CR.EXPOSU	2.9976
X6	NA/CR.EXPOSU	347.39
X7	TA/TL+CR.EXPOSU	6.4592
X8	NP+D/CD	3.4714
TOTAL AVG SCORES		574.35
CREDIT SCORES(CS)		71.794

Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai

Fig. 1: Credit Scores(CS)



In Table 6, ranking has been done on the basis of their credit score.In ranking Wipro captured the first position in IT sector, followed by Videocon, Asian, CMC, and Philips.

In depth analysis of the individual company's credit performance on the basis of credit score Table 6 indicates that liquidity ratio (x_4) i.e. the ratio of Normalized Working Capital to Credit Exposure is highly affected by percentage of Current Liabilities to Current Assets and percentage of Cash to Current Assets.

From Table7 it is found that in IT sector the liquidity ratio (x_4) as per our model in Philips is 66.547 whereas its current liabilities consist 60.31 % of current assets and at the same time cash covers 25.61% of current assets.

The liquidity ratio in Asian is 262.01 whereas its current liabilities consist only 17.90% of current assets and at the same time cash occupied only 2.41% of current assets.

The liquidity ratio (x_4) in Wipro is 182.81 while its current liabilities consist of 30.58% of current assets and at the same time cash occupied 22.06 % of current assets.

The liquidity ratio (x_4) in CMC is 120.74 while its current liabilities consist of 47.12 % of current assets and at the same time cash holds 16.75% of current assets.

The liquidity ratio (x_4) in Videocon is 210.54 whereas its current liabilities consist of only 30.90% current assets and at the same time cash occupied only 10.25% of current assets.

Therefore, Table7 revealed that the liquidity ratios of Asian and Videocon aregood due to the reason that in these companies current liabilities consist less percent of current assets and also cash occupied very nominal portion.

Table 6: Ranking on the basis of Credit Score(CS) of the Selected Companies of IT Sector

RATIO/COMPANIES	*PHILIPS*	*ASIAN*	*WIPRO*	*CMC*	*VIDEOCON*
X1	0.188	0.042	0.255	0.234	0.091
X2	0.957	4.134	2.818	0.894	2.86
X3	0.229	0.417	1.52	0.346	0.538
X4	65.61	262	182.8	120.7	210.5
X5	1.133	4.642	5.194	1.244	2.998
X6	259.2	268.6	550.3	236.3	347.4
X7	2.005	7.56	4.113	2.005	6.459
X8	1.712	3.426	1.737	1.935	3.471
TOTAL AVG SCORES	331.1	550.9	748.7	363.7	574.4
CREDIT SCORES(CS)	41.38	68.86	93.59	45.47	71.79
RANK	5	3	1	4	2

Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.

Table 7: Analysis of Liquidity position of IT Sector

Companies	*CA*	*CL*	*AVG CASH % OF CA*	*CL % OF CA*	*NWC/ CREDIT EXPOSURE*
Philips	970.02	536.43	0.256094	0.603069318	66.54718374
ASIAN	299.914	61.914	0.024133	0.179036782	262.0151972
WIPRO	7958.161	2515.2	0.220652	0.305813811	182.8154209
CMC	474.209	221.34	0.167573	0.471227196	120.7437469
VIDEOCON	1732.431	566.69	0.10255	0.309079718	210.5429216

Table 8: Correlation Analysis of IT Sector

		CASH OF CA	*CL OF CA*	*NWC OF CR EXP*
CASH OF CA	Pearson Correlation	1	796	– 858
	Sig. (2-tailed)		107	063
CL OF CA	Pearson Correlation	5	5	5
	Sig. (2-tailed)	796	1	–990
	N	107	5	001
NWC OF CREXP	Pearson Correlation	– 858	– 990	5
	Sig. (2-tailed)	063	001	1
	N	5	5	5

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

Coefficient of Correlation is the measurement of degree of association between two variables. A positive value of 'r' indicated high values of one variable are generally associated with the high values of other variables and low values with low values. In this study multiple correlation technique among Cash as a % of CA, CL as a % of CA and NWC/Credit Exposure has been applied. To test the significance of such coefficient, 't' test has been used.

It is found from Table 8 that in IT sector the correlation coefficient between cash as a percent of current assets and liquidity ratio (x_4) revealed the negative correlation which is (-) 0.858, statistically not significant. On the other hand the correlation coefficient between current liabilities as a percent of current assets and liquidity ratio (x_4) signified very high negative relation (-) 0.990 and it is statistically significant at 1% level.

It follows the theoretical proposition that higher the portion of current liabilities consisting of current assets, lower the liquidity position of the concern and vice-versa. The correlation analysis in Table8 shows that cash as a percent of current assets and current liabilities as a percent of current assets has a high positive correlation (0.796) which is statistically insignificant.

Conclusion

In this study we calculated ratios with main focus on company's liquidity profitability and capital adequacy. With the help of risk description model we find out the scores individually for each of the selected companies under study. The model clearly revealed that how the liquidity, profitability and capital adequacy factors influenced the score of individual companies. The companies, in which all the factors are good, obtained the high score. On the other hand, the companies where two factors are good but one bad factor outweighed the influence of good factors.

In this study total average score of Wipro is highest and consequentlycredit score is also good as compared to other companies in IT sector. Other ratios of all the selected companies are more or less similar except the ratio $x_{6.}$ It signifies that the comfort margin of Wipro is better than other companies and it helps to increase the credit score of Wipro.

The credit analyst company collects different types of information to make credit analysis of the applicant and determine whether the credit applicant fall above or below the minimum quality standards. The prime objective of

credit analysis is to judge the creditworthiness of the credit applicant.

Creditworthiness indicates the positive and negative acceptance of granting credit to the applicant. Generally, creditor companies are very much interested to know the liquidity position of the applicant and also the short term debt paying capability of the company. Therefore, risk description model is developed in such a way that profitability, capital adequacy, liquidity are taken together with credit exposure from different stands point.

Credit score signifies the credit worthiness of the company. Higher CS signifies better credit worthiness and vice-versa. Higher credit worthiness gives the opportunity to the company for late payment which increases the deferral period. It further decreases the cash conversion cycle. Lower Cash Conversion Cycle represents less requirement of working capital.

From the view point of credit score, obviously Wipro is better than other companies. It signifies the greater creditworthiness enjoyed by the said company during the study period. It helps the company to get more credit from the market and use fewer amounts of cash for its working capital.

Cumulative profitability (i.e. ratio x_2) and cash flow status (i.e. ratio x_8) of Asian is better than other companies. It signifies that both the profitability and cash flow status of Asian aregood. The company managed its cash flow in such a way that it increases its profitability.

In regards to the relationship between percentage of current assets and liquidity ratio, it is found that such relationship is quite impressive in Asian and Videocon than other companies. The fact is that in these companiesthe current liabilities consists less percent of current assets and cash. Overall, the relationship between current liability as a percent of current assets and liquidity ratio is negative.

Eight different ratios and the credit score help the credit analyst firm to judge the creditworthiness of an organisation. Apart from that, the relationship between liquidity ratios and current liabilities as percent of current assets also strengthen the control mechanism of the company. If there is any problem, then it can also be mitigated by appropriate technique easily.

Credit analysis through credit score not only helps the organisation in the short run but it is also applicable in long run. After identifying the pros and cons in the decision making stage the credit analysis through credit score solve the problem and transmit it smoothly from one stage to another. Hence it should be kept in mind that the liquid cash are not to be blocked in other types of current assets; it can be invested in some profitable project to enhance profit. Hence good credit worthiness indirectly increases the profitability of the organisation. From another point of view credit worthiness helps the company for achieving higher debtors' turnover. As the credit manager takes the decision of granting credit before the commencement of sales then it helps the organisation to take decision regarding its future investment projects. It helps the management to know how and when money should be collected and such information protects the company to borrow funds for investing future profitable projects.

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