Critical Evaluation of Capital Structure Policy on Nepalese Manufacturing Firms

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This paper evaluates the Capital structure policy of Nepalese companies by assessing the impact of both firm-specific and non-firm specific factors on the policy Respondents from profitable companies use less debt in general and long-term debt in particular which is consistent with pecking order theory. Small firms use relatively high level of debt to mitigate the consequences of asymmetrical information in the issue of equity. Target debt ratio in Nepalese context is found to be as high as 59% of total capital employed. The tax policy has positive impact on debt financing while liberalization on equity financing.

INTRODUCTION

The industrial sector in Nepal is functioning below the expectation level. "Almost all industries are either losing money or operating at a breakeven position" (The Himalayan Times, 2014/9/11). Starting in the 1930s, about 62 public enterprises were established with an objective of accelerating industrial and manufacturing estate. Later on, in 1997, most of the enterprises were sold to private sector under the privatization policy of the government. That privatization policy also did not bring any improvements and average performance of Nepalese industrial sector was similar to those found in other developing countries. However, the main problem of economic stagnant lies in Industrial sector in general and manufacturing sector in particular. The overall efficiency of manufacturing firms is below than international standards except few firms which have access to technology transfer, and which have been established under foreign licensing agreement. Though the industry sector is found not running at a satisfactory level, yet the non-farming economic activities of households have increased during the period of 15 years (1995/96 and 2003/04). The Nepal Standard Living Survey (2011) reports that the proportion of manufacturing activities has covered 37% of overall non-farming economic activities. Whatever the case may be now, growth of manufacturing is inevitable because, when it exports goods, it brings back wealth and prosperity to the nation from all around the world.

The overall economy growth is 5.2% recorded for the fiscal year 2013/2014. A slight increase in growth rate is observed from 3.2% in the fiscal year 2004/2005. At the same period, the growth rate industrial sector declined from 3% to 2.7%. To the worse, a negative growth of industrial sector was recorded as -0.6% in 2008/2009 (CBS, 2014). The bad shape of industrial sector is attributed partly to the performance of manufacturing sector specially and partly to poor designing of capital structure policy of industrial sector as a whole.

The increasing trend of inflation increased the dependency of Nepal on other countries owing to fluctuations in exchange rates, hike in gold prices and petroleum products, and undeclared devaluation in the US dollar. The current inflation rate is 9.8 (IMF, 2014). The increasing trend of inflation decreases the

saving of the people which, in turn, results in a decrease in capital mobilization rate. The capital mobilization through primary market in 2008/2009 was Rs.1682.82 ten millions which decreased to Rs.1068.52 ten millions in 2012/2013 (SEBON, 2014). A proper designing of capital structure policy can fight with the effects of faltering economy of Nepal.

This survey attempts to answer two main questions. The first question is "whether the capital structure policy affect value of the firm or not?" That is related to the test for relevancy of capital structure policy and the policy will be relevant if it is associated with the value of firm. The second question is "what are the determining factors of capital structure policy?" This is related to the identification of capital structure determinants. Past studies have been conducted to answer the questions. But the studies differ both in magnitude and direction of control variables of capital structure policy. The studies made by Afza and Hussain (2011), Gropp and Heider (2010), Gill et al. (2009) Cheng and Shiu (2007) show negative relationship of capital structure with profit while Jensen (1986), Zhang (2010) and Chen and Yu (2011) reported positive relationship between the two. Theoretical predictions are also not in agreement with the impact of profitability on capital structure. Pecking order assumes negative relationship and trade-off theory is positive relationship between the profitability and debt. In tune with profitability, growth shows both positive and negative relationship with debt-levels. The findings on positive relationship of growth have been reflected in Titman and Wessels (1988), Rajan and Zingales (1995) and Yang et. al.,(2010) in consistent with pecking order theory. The inverse relationship between the growth and capital structure can be found in Jensen and Meckling (1986), Rajan and Zingales (1995), and Shah and Khan (2007) on the contrary, Fama and French (2002), and Bevan and Danbolt (2002) show the positive relationship with capital structure assuming with trade-off theory financing. The analysis on impact of non-firm specific variables together firm specific variables are found in some of empirical studies. Cross-sectional factors rather than firm specific factors cause more than 60% of leverage variations (Lemmon et al., 2008). Stressing the importance of cross-industry factor, MacKay and Phillips (2005) pointed that within-industry leverage variation is much higher between-industry variations. On the contrary, Rajan and Zingles (1995) finds that cross-country factor is less important among G7 countries. Country's legal and tax system and the level of corruption exert substantial impact on capital structure of company (Fan et al., 2010). Fan et al. reported that countries with relatively high degree of corruption prefer short-term debt to long-term debt, and debt to equity in overall financing decisions, and the companies running under the proper legal system preferred to have more equity than debt, and more long-term debt than short-term debt.

In developing countries, economic conditions affect the capital structure of small and unlisted companies only because the large and listed firms have easy access to domestic and international market (Madoglu and Phylaktis, 2009).

Past studies on capital structure policy differ from each other in respect of identification of factors and their measurement of impact on how CFOs design the capital structure policy. The underlying survey is assumed to be one of the milestones to the study of capital structure policy.

It can be easily conjectured that firms in countries that are viewed as more corrupt tend to use less equity and more debt, especially short-term debt, while firms operating within legal systems that provide better protection for financial claimants tend to have capital structures with more equity, and relatively more long-term debt. In addition, the existence of an explicit bankruptcy code and/or deposit insurance is associated with higher leverage and more long-term debt. However, it is generally accepted that wrong formulation of capital structure policy may lead to financially distressed position and finally to a bankrupt situation of the firms.

OBJECTIVES

The basic objective of the survey is to investigate views of CFOs on capital structure policy in Nepalese context. The other subsequent and complimentary to the basic objective are listed as follows.
-   To find whether capital structure is relevant or not,
-   To see how far established capital structure theories explain the observed policy,

- To sort out firm specific factor of capital structure,
- To measure the impact of non-firm specific of capital structure policy.

DATA AND METHODOLOGY

This survey analyzes the opinions of financial experts' views on the capital structure of Nepalese firms. The study covers listed and non-listed as well as private and government owned company. Altogether 275 questions were distributed out of which only 162 questionnaires were returned with fully answered. The response rate is about 59%, which is higher than those of 9% in Graham and Harvey(2001), 20.3% in Santos and Marques (2003), 12% in Bancel and Mittoo (2004), 23%, Beattie et al., (2006) and 37.9% in Kingston and Laziridis (2010).

Great care is taken that questions are fully and seriously answered. For the purpose, a number of test questions on theoretical knowledge of finance were included tacitly in the questionnaires. More than 87% of these test questions were answered correctly which assures us that the questionnaire distributed ultimately reached to the hands of experts possessing both theoretical and practical knowledge of finance. The mode of analysis is carried out with the statistical tools like Kendall coefficient of concordance(W), Binomial test, Wilcoxon Signed Ranks Test, ANOVA test, chi-square test, correlation and regression analysis**. Kendall coefficient (W) measures the agreement among more than two judges (respondents in the study) for ranking data. Wilcoxon Signed Ranks Test computes the differences between two scaled series and coverts the scaled series into ordinal scale. After converting in ordinal scale it measures the association between the differences of two sets of data. Binomial and chi-square test are the kinds of nominal test. Binomial is useful when the frequencies are dichotomous .and chi-square is used to measure the difference between observed and theoretical frequencies of more than two groups of data. The ANOVA test is powerful ratio statistical test that shows whether there is significant difference among the three or more than three mean values of the series. Correlation shows total correlation between two attributes whereas the regression analysis estimates the equation to show the relationship between the dependent and independent variable(s).While analyzing the data, the statistical tools have been used to derive the findings of the study.

MODE OF ANALYSIS

The study examined the relationship of debt and equity variables and also expressed the Kendall concordance, large sample (Z) test and Wilcoxon and chi-square test. The model to be used specified as under:

$$r_{xy} = cov(x,y)/(var(x). \, var(y)) \tag{1}$$

$$W(Kendall \; concordance) = \frac{S}{\frac{1}{12}k^2(n^3-n)} \tag{2}$$

$$Z(binomial) = \frac{(x_0 \pm 0.5) - np}{\sqrt{npq}} \tag{3}$$

$$Z_w(Wilcoxon) = \frac{T - \frac{n(n+1)}{4}}{\sqrt{\frac{n(n+1)(2n+1)}{24}}} \tag{4}$$

$$F = \frac{\frac{Sum \; of \; squares \; between \; samples}{k-1}}{\frac{Sum \; of \; squares \; due \; to \; error}{n-k}} \tag{5}$$

$$(\chi^2) = \frac{\sum(O_i - E_i)^2}{E_i} \tag{6}$$

In the above equation S represents the sum of squares of the deviations ranks (R_i) from their respective means (mean of the ranks). The value of 'W' ranges from 0 to 1. If it is zero, no agreement is found. If it is one, complete agreement is said to occur. The value greater than zero and less than one 'W', can be interpreted accordingly on the basis of Chi-square value. The observed chi-square value happens equal to k(n-1)W for degrees freedom equal to n-1. The notation 'n' refers to number of rankings available to respondents to a particular question. In the formula of binomial distribution n denotes number of items, p represents probability of success, q shows 1-p and 0.5 is added to x_0 if it is less than np and 0.5 Is subtracted from to x_0 if it is greater than np.

The Wilscons test considers both magnitude and direction of differences between the two related series (x_i and y_i). On the basis the differences, ranks are assigned on basis of magnitude and direction of differences i.e., $d_i = (x_i - y_i)$. In this way scale variables measured in differences are converted in ordinal scale in terms of ranks. The mechanism represents the Wilcoxon sign test, where n shows sample size and T denotes sum of ranks with less frequent sign (+d or -d).

The mechanism is to find the F-ratio of mean sum of squares between samples to sum of errors. As the ANOVA test measures the mean differences among the three or more than three samples mean. Where n stands for total sample size (sample size of all samples), and k shows number of samples. The calculated F-value is compared with the tabulated F-value for given level of significance and pair of degrees of freedom.

The calculated value of chi-square is compared with tabulated value of chi-square for a given level of significance and degrees of freedom and decision is taken accordingly.
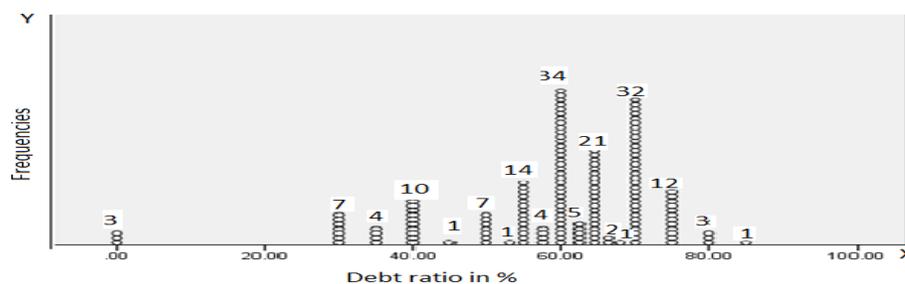
CAPITAL STRUCTURE POLICY AND ITS IMPLICATIONS

The following sections explain the analytical description of capital structure determinants and its impact on capital structure policy.

Nature and Pattern of Capital Structure

Out of 162 respondents, approximately 48% belong to listed firms and majority (about 52%) of the respondents to unlisted firms. The other breakdowns are made on the basis of type of ownership and legal status of the company. More than 64% of responses came from privately owned companies and about 36% from public companies. Similarly, 54 (about 33%) sample companies were registered as sole trading or partnership and rest 108 (about 67%) as corporation (both government and non-government). Responses from both large and small companies have been collected and analyzed. For example, questionnaires form 33 small 54 medium and 75 large companies were returned with fully answered. .

Dot plots of all 162 observed debt ratios are presented in figure 1. The stacked of dots for given X-axis actually represents the frequency of observed debt ratios represented by Y-axis.

FIGURE 1
DEBT RATIO

The dot plots not only display the graphical view of the debt ratios but also provide the frequency associated with each of debt ratios. For example two cases of o% debt-ratio (case of unlevered firm) and 10 cases of 40% debt -ratio have been depicted in Figure-1. Corollary to this graph display, statistical summary and interpretations of the data displayed in figure 1 are presented below in Table 1.
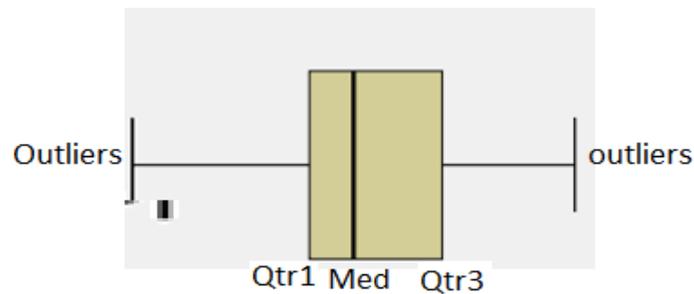
TABLE 1
PATTERN OF DEBT RATIO

S.N	Parameters	Results
1	No of Responses	162
2	Mean	59.15
3	Median	60.00
4	Std. deviation	14.37
5	Skewness	-1.677
6	Minimum	0
7	Maximum	85

Source: Field survey , 2014

The median is less than mean which manifests that most of the sample firms have employed the leverage ratio less than mean ratios. This makes the distribution left skewed with negative value of skewness. The left skewed is also observed in box plot graph in figure 2

FIGURE 2
SKEWNESS OF DEBT RATIO

The box plot provides the distribution of debt ratios more vividly. The thicker line in box, which represents median, is nearer to first quartile than third quartile of distribution. Large number of values is outside the line of first quarter.

Capital Structure Objective
According to the respondents, the first and the second objective of the formulation of capital structure policy are the maximization of the value of the firm (or maximization of share price) and minimization of cost of capital. Table 2 presents the hierarchy of objectives based on the ranks assigned by respondents.

TABLE 2
DESCRIPTIVE STATISTICS OF CAPITAL STRUCTURE OBJECTIVES

Objectives of capital structure			Descriptive statistics				
Option	Mean rank	Relative importance	Kendall's coefficient	Chi-Square	d.f	Significance level	N
Maximization of share	1.83	1	.224	145.320	4	0.000	162
Minimization cost of capital	2.71	2					
Long term survivability	3.3	3					
Liquidity	3.47	4					
Financial independency	3.69	5					

Source: Field survey, 2014

The first and second preferential choice of objective makes the capital structure policy relevant in reducing the overall cost of capital. The cost of capital can be reduced if cheaper source of financing is raised whenever there is a need for additional financing. Obviously, internal source is always cheaper than those of external sources. Among the external sources, debt is considered cheaper according to both of static trade-off theory and pecking order theory. Pecking order behavior is based on hierarchy of financing and always prefers debt to equity in order to mitigate the problem of asymmetrical information. On the other hand, static trade also favors debt as long as the tax-shield income exceeds the bankruptcy and agency costs. The debt-related benefits exceed the cost of capital until and unless the capital structure has not attained its target debt ratio. On the contrary to pecking and static trade-off theory, market timing theory does not make any pre-assumption of debt financing as cheaper source of financing. The type of external source depends on the timing of market i.e. equity is issued if market conditions are favorable to equity-issue and debt is issued if market conditions are favorable to debt-issue. No matter which theory governs the financing issue, the objective is to minimize the cost of capital and to maximize the value of the firm. The third ranked objective (opted by respondents) is long-term survivability. Business houses formulate and implement both tactical and strategic plans. In order to ensure long-term survivability, capital structure policy must support long-term strategy. Firms, in order to lengthen survivability of firms, forgo highly lucrative investment for less risky projects and less profitable projects. Liquidity and independent are last two objectives of a good capital structure policy. Liquidity maintains higher value of current assets compared to the value of current liabilities. When the firms are at matured stage liquidity becomes the main concern of capital structure policy. For growing firms, liquidity is not a serious threat to a firm enjoying cow position of BCG matrix. Independency occurs if there is flexibility of designing and redesigning of capital structure policy. Flexibility implies substitution of debt for equity or equity for debt without affecting the value of the firm. Market timing theory gives the emphasis on flexibility of policy formulation.

Table 2 reveals that preference of objectives is found highly correlated among the opinions of respondent, which is measured by Kendall coefficient of Concordance (0.224). The chi-square value (145) is high enough to make statistically significant.

Size and Debt Policy

Large firms, being in the position of size-advantage, can raise debt at a cheaper rate of interest. This supports the positive relationship between the size and debt. On the other hand it is argued large firms have higher portion of collateral assets that scatter way the problems of asymmetrical information and makes the firm less levered. This controversy does not lie only in theoretical predictions but it also lies in empirical findings. Sharif et al. (2012) reported positive relationship but Mishra and Tannous (2010) negative relationship between size and debt.

The survey displays the Table 3 showing the relationship between size and debt 20% responses came from small sized firms, 33% from medium sized and rest from large size. The table shows that the leverage and size are negatively related and consistent with pecking order. But the relationship is significant at 0.016 as revealed ANOVA.

TABLE 3
DESCRIPTIVE STATISTICS OF DEBT RATIO

Nature of firm	No of firms	Mean debt ratio	Std. Deviation	Minimum	Maximum	F-Value
Small size	33	63.6667	8.79867	40.00	80.00	
Medium size	54	61.0185	11.37772	30.00	80.00	4.26*
Large size	75	55.8267	17.33250	.00	85.00	
Total	162	59.1543	14.37284	.00	85.00	

Source: Field survey, 2014
*significant at .05**significant at .01

The overall comparison of means shows that size has negative impact on debt policy of Nepalese firms but it does not make the comparison of between means of each variable. Table 4 displays the pair wise comparison between small and medium, small and large, and medium and large sample size.

TABLE 4
COMPARISON OF FIRM SIZE IN TERMS OF PAIR

Difference	Medium (61.02)	Large (55.83)
Small Size (63.67)	2.65	7.84**
Medium size(61.02)		5.19*

*significant at .05, **significant at .01

The above table (Table 4) clarifies that significant difference in average debt ratio lies between small and large, and medium and large but not between small and medium. This concludes that large sized firm houses in Nepal are less levered than small and medium size firm.

Capital Structure and Age of the Firms

Older firms are exposed to the market and they have less information to hide from outsiders. This openness mitigates the problem of asymmetry of information by virtue of which elders and more experienced firms can raise debt at relatively lower costs. Esperança, et.al., (2003) assumed a negative relationship between debt level and age of the firms. This study computes the correlation coefficient between debt ratios and age of the firms as viewed by respondents. The correlation coefficient between the two variables is found to be -0.19 (significant at 0.015) in appendix 1. The negative coefficient supports the inverse relationship between capital structure and age of the firms which is consistent with Saarani and Shahadan (2013) implying that the old and experienced Nepalese firms employ relatively low level of debt.

Leverage and Value of the Firm

A question regarding the importance of capital structure policy was asked like 'Does debt policy matter'. Different views coexist, some conflicting and others complementary. For example, MM (1958) and MM (1963) provide two extreme views on the impact of capital structure on the value of firms and assume no target capital structure. But the supporters of the static trade-off theory assume target debt ratio

that maximizes the value of firm which in turn minimizes the cost of capital. The responses in this regard are divided as shown in Table 5.

TABLE 5
DEBT POLICY MATTERS AFFECT THE VALUE OF FIRM

Question	Options	Response	Percentage	z-value
	Yes	145	90	8.41**
Does debt policy matter?	No	17	10	
	Total	162	100	

Source: Field survey , 2014
**significant at less than 0.001

Nepalese CFOs consider debt policy to be important for maximizing the value of the firm. As high as 90% of total responses agreed that proper debt policy affect the value of firms, and this is significantly high even less than 1% level of significance. Recent studies (Akoto & Vitor, 2014) also reported in favor of debt policy. A similar question related to the relevancy of debt policy was asked to rank the factors responsible for the policy. Weighted means have been computed, weights being the ranks assigned by respondents. On the basis of mean ranks, determining factors are enlisted in Table 6 in preferential order.

TABLE 6
RESPONSIBLE FACTORS FOR DEBT POLICY

S.N	Option	Mean Rank	Relative Importance	Kendall coefficient	Chi - Square	d.f	N
1	Flexibility	3.23	1				
2	Corporate tax	3.35	2				
3	Earning variation	4.12	3				
4	Transaction Costs	4.26	4	.16	163.19	7	162
5	Cash flow	4.80	5				
6	Competitor debt policy	4.95	6				
7	Sales growth and stability	5.55	7				
8	Personal tax	5.73	8				

Source: Survey reports , 2014

The first four factors, ranked by respondents, are flexibility, corporate tax advantage, variability of earnings and transaction costs. Out of them, the second, third and the fourth factor provide either costs or benefits for the use of debt capital. Static trade-off theory evaluates cost and benefit of debt capital and thereafter determines the optimum level of debt. In this context, it can be generalized that ranking pattern support the static trade-off theory among Nepalese practitioners. The Kendall coefficient of concordance (W) is found to be 0.16 and the observed chi-square to be 163.19 for 7 degrees of freedom, which is significant at 5% level of significance. This implies that a strong agreement in ranking scales is found among 162 respondents which is reflected in statistical measures like Kendall coefficient of concordance and simple chi-square test.

Long-Term vs. Short-Term Debt
Countries' economic conditions as well as political conditions affect the capital structure policy of the enterprises. The legal system and tax system and level of corruption explain why there are significant variations in leverage ratios across countries. Countries where corruption level is higher use less equity

and relatively high level of short-term debt (Fan, Titman and Twite, 2010). Nepal is no exception to this rule as it ranks 116th position out of 177 in corruption perception index 2013. (Britain-based Transparency International (TI) and Global post American news site 2013). Fan, Titman and Twite (2010) further reported that firms operating in a country, where legal system and law enforcement is strictly followed, use more equity and relatively more long-term debt rather than short-term debt.

Fifty-six percent preferred short term where as remaining forty-four percent opted for long term debt. Though the difference is not wide and it is statistically significant only at 13% level of significance. The first reason of making choices between long-term and short-term is the interest rate. Approximately51% of respondents preferring short-term to long-term debt and 61% of respondents preferring long-term to short-tem, hold the opinion that the interest rate is the first and primary reason of preferring one-type of debt to another. The value of chi-square (6.47) and contingency coefficient (0.06) for 2 degrees of freedom statistically proves that there is unanimity among the respondents on the impact of interest rate on making choices between long-term and short-term debt. Because of benefits of low interest rate, financially distressed companies have been found employing current liabilities which carry little or no interest. After interest rate, 'volume of borrowing' is the second important factor that determines which kind of debt (long-term or short-term) should be raised to meet the requirements of additional funding. The chi-square coefficient (0.02) and the contingency coefficient (.09) together show that the respondents are of unanimous in rating 'volume of trading' number two factors for deciding between the types of debt financing. Table 7 gives the order list of factors and degree of association based the cross tabulation and coefficient of concordance techniques.

TABLE 7
INTEREST RATE DETERMINANTS FOR DECIDING BETWEEN DEBT FINANCING

Factors	Chi- Square	Contingency coefficient	Degree of freedom
Interest rate	6.47	0.06	2
Volume of Borrowing	02	0.09	2
Maturity of debt	1.82	0.22	2

Source: Field survey, 2014

The chi-square and contingency coefficient show that the respondents, whether they prefer short-term debt or long-term debt, are in highly agreement in ranking the factors.

Impact on Taxation in Capital Structure Policy

MM (1963) argue that value of a levered firm increases with an increase in debt level. The assumption behind their argument is that interest on debt is tax-deductible expense which is a kind of indirect income accruing to a levered firm. Miller (1977) with the help of an equation proved that personal tax completely wipes out the benefits of corporate tax and reiterated the irrelevance theory of MM (1958). The study seeks the respondent's opinion on the impact of tax rate on capital structure policy if tax rate is increased by 35%. The respondents' answer is as follows.

TABLE 8
EFFECT OF TAX RATE WHEN THE RATE IS INCREASED BY 35%

Level of debt	Responses	Percentage of response
Increase	125	77.2
Decrease	21	13.0
No change	16	9.0
Total	162	100

Source: Field survey, 2014

Ninety percent of (77+13) respondents agreed that they will change their debt policy if tax rate increases. Alone 77% stated that they would increase the ratio of debt capital. This is consistent with the theoretical predictions that dictate the positive relationship between tax shield income and capital structure. The explanation is that whenever tax rate raises the tax-shield income also rises even for status quo position of debt level. The amount and proportion of tax-shield increase even more if the level of debt increases. The observed responses support traditional prediction on the relationship between tax-shield income and capital structure as explained by static trade-off theory. But increase in personal tax-rate builds up indirect pressure to the company to pay additional salary other infringes benefits (agency costs) to its employees and management, thus reducing retained earnings. Reduced retained earnings necessitate using external sources. Debt is preferred external source of fund according to pecking order theory. The relationship between tax-rate and debt can be explained by the theory of both statistic trade-off and pecking order theory. The responses in this issue are distributed in the following table headings.

TABLE 9
IMPACT OF TAX RATE ON SALARY AND INFRINGE BENEFITS

Matter	Salary and fringe benefits		Retained earning	
Result	Yes	No	Yes	No
Response	132	30	95	67
percentage	81	19	59	49
Reason	It affects administrative expenses and retained earnings	it does not affect		
Binomial Test	6.25**			

Source: Field survey, 2014
** Significance level 1%

The binomial test (6.25) makes the difference statistically significant suggesting the pecking order behavior of Nepalese firms. A supplementary question on the impact of tax rate exclusively on retained earnings was asked and their answers were found as shown in Table 9

Most of the opinions opted for 'Yes' and the difference is statistically significant at .01 level of significance. This shows that pecking order theory explains the relationship behavior between tax rate and capital structure of the company.

Pecking Order vs. Static Trade Off
There are two most influential theories of capital structure which are known as trade off and pecking order theories. The first, the trade-off theory assumes that optimal capital structure can be obtained by trading off the cost and benefits of debt and equity. The main benefit is the tax-deductibility of interest which made Modigliani and Miller (1963) assume that the value of levered firm is greater than that of unlevered firm. The costs associated with capital structure are bankruptcy costs (Kim, 1978) and agency cost (Jensen and Meckling, 1976).

Pecking order theory assumes that asymmetric information is directly related to cost of financing. To minimize the cost of asymmetric information companies prioritize their source of financing, first preferring internal financing, and then debt financing if internal financing is insufficient, and lastly equity financing as a "last resort" of financing. The concept of pecking order is initially suggested by Donaldson (1961) and the concept modeled into theory by Myers and Majluf (1984).

The trade-off theory and pecking order theory have some conflicting prediction. For example, the positive relationship between profitability and debt is assumed under trade-off theory but the pecking order assumes the negative relationship of profitability with debt. Trade-off theory assumes positive relationship between size and leverage while the pecking order assumes the negative relationship between these two ratios. Tangibility affects leverage in positive directions under trade-off theory and same is

assumed to have negative direction under pecking order theory. However, there is mixed findings in studies made in the past. Shyam-Sunder and Myers (1999) find support for pecking order theory during the study period ranging from 1971 to1989. The findings suggested by Fama and French (2005) neither supported pecking order nor trade-off theory. An empirical study made by Abubakar Sayeed (2007) showed that pecking order theory is applicable to listed non-financial Pakistani firms. Bufernaetal (2008) reported the support for trade-off theory in the study of capital structure of Libyan firms.

A question was asked to know the most preferred sources of financing when additional funding is required. The responses have been presented in Table 10.

TABLE 10
SOURCES OF FINANCING

Financing sources	Mean Rank	Relative importance
Own Funds (Equity)	2.54	3
Reserve and surplus	1.22	1
Debt	2.23	2

Source: Field survey, 2014

The most preferred source of financing is 'Reserve and surplus' (retained earnings). More than 80% of respondents assigned first rank to the 'Reserve and surplus'. The use of retained earnings is quite understandable as it neither carries transaction costs nor sends any signaling effect in the market. The selection of this source is consistent with both static trade-off theory and pecking order theory. The option 'C' i.e., debt is the second preferred source of financing where more than 60% respondents gave second ranks and third source as observed is found to be the 'equity' where more than 66% assigned the third ranks. Wilcoxon Signed Ranks Test has been applied to the options between 'equity financing' and 'debt financing'. The test statistic table (Table 11) shows the results of 'Wilcoxon.'

TABLE 11
WILCOXON TEST OF DEBT AND EQUITY FINANCING

Wilcoxon Signed Ranks Test	Debt and Equity	Test
Z -Value	-2.997**	
Significance level	.003	Two tailed
N	162	

**significance level 1%

The Z-value is significant below 1% level of significance. It can be said that there exists significant difference between two mean ranks (debt and equity). It can further be said that respondents prefer debt to equity whenever they need external financing. This behavior of financing supports pecking order theory in Nepalese CFOs. The debt financing is opted in static trade-off theory only when equilibrium is attained and the firm is under-levered. Another but similar question to the preference of sources of financing was asked to the respondents. The only difference in this question is that debt has been broken into two parts, short-term and long-term. Their answers were presented in Table 12.

TABLE 12
SHORT-TERM AND LONG-TERM DEBT

Particulars	Number of responses	Mean Ranks	Std. Deviation	Ranking position
Equity	162	1.61	.526	3
Retained earning	162	1.51	.514	2
Long term debt	162	1.79	.408	4
Short term debt	162	1.33	.473	1

Source: Field survey, 2014

The mean rank shows that short-term debt is preferred most followed by retained earnings. The third and fourth preferences come to equity financing and long-term debt financing. The difference in first preference and second preference is not significant as shown in Table 13 (Wilcoxon Signed Rank Table)

TABLE 13
WILCOXON TEST FOR SOURCE OF FINANCING

Sources	Retained earning	Long term debt	Short term debt
Equity	-1.586[a] (0.112)[b]	-3.183[a] (0.002)[b]	-5.128[a] (.000)[b]
Retained earning		-4.904[a] (000)[b]	-2.6[a] (000)[b]
Long term debt			-6.812[a] (000)[b]

Source: Field survey, 2014
a=Z-value, b=Significance level

The Z-value between equity financing and retained earnings is -1.586 at 11% level of significance. This shows that respondents have given almost similar weightage these two sources of financing. Short term financing is selected in a distinguished way as most preferred source of financing. All the paired z-values associated with short-term debt financing are significant at very low value of probability. This contradicts with general assumption that 'retained earning' is the most secured and the best profitable source of financing. But, sometimes, this situation may occur when a firm is regularly in a loss position and there is no any scope of generating retained earnings. CFO in this firm may opt for short debt which encompasses large volume of trade credits and contingent liabilities which are virtually free of interest. In other words short-term debt is preferred as the first preference of financing in a financially distressed company. In this question of preference, respondents considered long-term debt financing as least preferred source of financing. This selection is also made in financially stress companies in order to avoid the burden of interest. The responses to the questions give little support for pecking order theory.

Situation Analysis of Interest Rate
Interest rate is cost of debt and changes in interest affect the overall cost of capital. Changes in the cost of capital cause target ratio shift away from its original point. Opinions regarding the interest rate are sought by asking two questions: one about what it is and another about what it should be.

TABLE 14
SITUATION ANALYSIS OF CURRENT INTEREST RATE

Interest rate	Response Frequency	Percent	Valid Percent	Cumulative Percent
Low	13	8.0	8.0	8.0
High	109	67.3	67.3	75.3
Reasonable	40	24.7	24.7	100.0
Total	162	100.0	100.0	

Source: Field survey, 2014

Seventy five percent (122 respondents) consider that interest rate is not reasonable. Majority of them complain that the underlying rate is high. So, further opinion is sought from these 122 respondents about what they think on reasonable rate.

TABLE 15
ANALYSIS FOR DETERMINING WHETHER THE INTEREST RATE IS REASONABLE OR NOT

Respondent criteria of interest rates	Response result	Mean	Std. Deviation
Low	13	8.64	.953
High	109	9.63	1.201
Total	122	9.52	1.213

Source: Field survey, 2014

The interest rates suggested by both groups are almost identical which is also justified in ANOVA table. Respondents who are with low interest rate suggest increasing up to 9% and respondents with higher rate suggest decreasing to 9%. In this way the same convergent interest rate comes from both ways.

TABLE 16
DIFFERENCE OF OPINION BETWEEN LOW AND HIGH INTEREST RATE GROUPS

Gap analysis	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.489	1	11.489	8.275	.005
Within Groups	166.606	120	1.388		
Total	178.096	121			

Source: Field survey , 2014

The F-value which measures the difference between mean values is significant less than 1%.
This implies that there is no meaningful difference in the reasonable rate suggested by either of the groups.

CONCLUSIONS

The capital structure policy is guided more by pecking order and less by static trade-off theory. The preference of internal financing and maintenance of target debt ratio (59%) support both theories

partially. The formulation of policy is found less affected by non-firm specific factors rather than firm specific factor. The main objectives of designing a proper policy of capital structure are to minimize the cost of capital, maximization of share value and assurance of long-term survivability. The opinion survey shows that Nepalese firms rely heavily on short-term debt rather than long-term debt. The importance of short-term debt is found very high to financially distressed companies. The choice between long-term debt and short-term debt, as pointed by respondents, depends mainly on the rate of interest and volume of borrowing.

The liberalization policy of government is found enhancing equity market but tax policy is found to have little positive impact on debt. Most of companies were running into losses and no tax-advantage accrued to these companies. To the more, personal tax had no impact in the capital structure policy and it was less effective than corporate tax.

Finally, it can be said that firm specific factors were more responsible than non-firm specific factors in determining effective capital structure policy of Nepalese firms on the basis of information provided by respondents.

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