Analyzing the access of Nepalese Non-financial Firms to the Capital Market and Examining their Approaches to External Financing

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Abstract: *The purpose of this study is to investigate the funding behavior of investors, whether they lean towards a futuristic or historical approach, in relation to their decisions regarding debt financing. Moreover, it focuses on how financial performance is more sensitive to small constraint firms relative to large unconstraint firms for their potential funding. The study employed a quantitative approach and an analytical research design to investigate how firm characteristics influence debt financing decisions in Nepalese non-financial firms from 2001 to 2019. Specifically, it employed descriptive and causal-comparative research methodologies to assess its goals. Findings suggest that smaller firms encounter challenges in accessing capital markets, resulting in a diminished impact of tangibility on profitability sensitivity when compared to larger enterprises. As a result, smaller enterprises rely more on internal funding, and their cash reserves are more closely tied to their performance. Notably high Tobin's Q values indicate that Nepalese managers tend to adopt a forward-looking approach in their leverage decisions. Financing decisions of Nepalese firms appear to be more influenced by capital market considerations, indicating a forward-looking approach. The findings of this study could be useful to the finance managers while they are in a position to employ external financing to their perspective projects.*

Key words: Sensitivity, Profitability, Tobin's Q, leverage, cash reserves, market leverage

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I. INTRODUCTION

Corporate finance domains provide several prophecies regarding the composition and attributes of securities that are issued by firms. To date, empirical studies that explore these predictions have predominantly focused on their applicability in the context of developing economies (Almeida, Campello, & Weisbach, 2021; Bevan & Danbolt, 2002; Brav, 2009; Rajan & Zingales, 1995), primarily due to data availability.

Small firms basically suffering from financial issues, considered as financial constraint firms. Such firms are more exposed than unconstraint firms to monetary policy and this implies that monetary policy is unlikely to have uniform effects across firms (Bougheas, Mizen, & Yalcin, 2006). A well-known line of study examines whether constraint firms access to external financing affects the optimality of firm investment decisions (Campello, Graham, & Harvey, 2010). Many of the researchers agree that capital market imperfections can distort firm investment, there is conflict regarding the type of evidence employed to support this claim. A review of the empirical works on access to capital market, capital structure and external financing showed that most of the firms have financial issues in some point of time. Both theory and empirical studies advocate the existence of financial constraint that the firm face financial obstacle to grow over time. Large firms tend to issue equity and employ it into their potential investment (Crouzet, Eberly, Eisfeldt, & Papanikolaou, 2022). Nevertheless, not all companies possess equivalent access to the capital market when it comes to issuing equity. In this context, companies primarily secure their finances through internal funds, such as cash flow, or by utilizing debt as the primary external funding source. Pecking order of financing choice assumes that firms' do not have target debt ratio rather they use external financing when internal funds are exhausted (Graham & Harvey, 2001), and in this case firms are likely to be financially flexible for the use of internal funds. Consequently, one of the important factors to determine the level of debt is the availability of internal profit.

This study mainly motivated to examine the relationship of financing deficit and outside financing, the two main sources of fund for most firms taking into consideration. Generally, small firms are typically young, less well known and more vulnerable to credit imperfection, the financially constraint firms, face less access in managing fund from external funding. Private and small firms rely more of their external financing exclusively by debt (Brav, 2009). By internal financial constraint, the study refers the level of internally generated fund (cash flow) which would determine whether or not a firm decides to go for external financing. Bougheas et al. (2006) examine firms' access to bank debt and result shows that the small, young, and more risky firms are markedly affected by tight monetary policy than their larger and older counterpart.

The firm specific variables have been identified from the overview of literature are tested by analyzing the data of Nepalese firms excluding financial institutions. The limited access to the capital market imposes an external cost on firms, resulting in reduced sensitivity of their leverage to factors known to affect the target debt ratio. Thus, the debt ratio of such firms will exhibit less sensitivity to factors such as firm growth opportunity,

asset tangibility, volatility, and firm size. Goyal, Nova, and Zanetti (2011) indicate that firm age has a noteworthy influence on the leverage of constrained firms, while its impact on larger firms is comparatively less pronounced. One plausible explanation for this is that as a firm age increases, its leverage tends to decrease.

Additionally, when a firm gets more mature, its market status increases and the cost of issuing external financing decreases. Consequently, the firm becomes less reliant on leverage to address its financing deficit. Besides, (Berger & Udell, 1995; Petersen & Rajan, 2002) argued that firm age influences the debt-equity combination, as mature firms become more established and recognized in the market, thereby gaining increased access to capital. Further, Brav (2009) noted that larger unconstrained firms are more likely than constrained firms to participate in external market activities, such as raising or retiring capital. Besides, Brav emphasized that, according to the tradeoff theory, leverage is less sensitive to factors affecting the capital structure but is more responsive to operating performance. (Brav, 2009; Ding, Guariglia, & Knight, 2013) have evinced that firms with higher levels of net working capital have a tendency to rely less on external financing and are more inclined to retire debt capital.

Firms that aim for greater cash targets and have significant trade accounts with suppliers typically retain larger amounts of working capital. Unlikely to working capital, small and medium enterprises which are seeking to make investment in new potential project tend to raise external financing by issuing debt (Trinh, Kakinaka, Kim, & Jung, 2017). Moreover, they indicate that firms seeking new investment, those with higher leverage are more likely to imply external financing rather than internal financing. More recently Demirgüç-Kunt, Peria, and Tressel (2020) provide evidence suggesting that listed firms, which are usually larger than other firms and have easier access to capital market financing, exhibit less pronounced indications of significant decline in leverage and debt maturity. Moreover, in order to fund a new project, a company must increase its investments, which can potentially result in a favorable effect on debt financing (Wu, Wu, & Zhao, 2022). Besides, Ali (2022) documents that firms exhibiting greater profitability and employing a more generous payout policy tend to secure increased debt financing. This trend arises from their improved access to the capital market, allowing them to leverage higher levels of debt for their prospective projects. Put together, these outcomes make a substantial addition to the established collection of research on leverage financing (e.g., (Barclay, Smith, & Morellec, 2006; Frank & Goyal, 2009; Frank, Goyal, & Shen, 2020)) along with on financial performance anecdotes (e.g., (Brav, 2009; Goyal et al., 2011), and their success in obtaining funding from the capital market.

The Nepalese capital market remains nascent, with numerous firms encountering obstacles in accessing external equity, leading them to predominantly rely on debt for external financing. Understanding how these firms implement debt policy in their investments is intriguing. Consequently, there is a limited understanding of corporate sector financing behavior in underdeveloped economies like Nepal. This paper aims to explore the financing structure and funding behavior of Nepalese firms, particularly investigating disparities between large and small firms in their financing decisions

and assessing if these variances manifest in different financing behaviors in practical situations. Besides, the study also aims to investigate which of the leverage, either market or book measure would be more relevant to Nepalese firms.

The rest of the paper unfolds as follows: Section II encompasses data and measures, delving into related data, research design, and the applied analytical methods. Section III outlines hypothesis development, while Section IV presents the findings of the study. Finally, Section V encapsulates the conclusion, implications, and avenues for future research.

II. METHODOLOGY

In Nepal, public companies are established by registering with the Company Registration Office. Public and large-scale companies may also need to go through the Security Board of Nepal before entering the capital market. Public companies have the unrestricted right to issue Initial Public Offerings (IPOs) to the public, while small-scale firms without a regular profit for the last three consecutive years are restricted from raising financing from the public market. For the purpose of this study, the firms' sales which fall in bottom 3 deciles are considered as small and reverse it to a large one. As per the Company Act 2006, both small and large firms are required to obtain a license from the Company Registration Office and submit their financial statement each year. The study focuses only on non-financial firms, as these firms commonly rely on bank loans and other obligations for their operations, while financial firms are excluded as they are not recipients of loans.

As of mid-July 2019, there were 64 non-financial firms considered as the population for this study. However, we were unable to include all of them because some of them were newly established and others were unable to make their financial data publicly available as these companies fail to prepare their financial statements and convene their annual general meetings on time. Besides, the stock market experienced a slowdown in 2020, which persisted into 2021 due to the pandemic, leading to a dearth of data from all sample firms. Consequently, this study utilized a sample of 19 firms spanning from 2001 to 2019. These 19 firms, chosen through convenient sampling, represent approximately 30 percent of the total firms, a response rate exceeding that of Graham and Harvey (2001) at 9% and Faff, Gray, and Tan (2016) at 12.5% in their capital structure surveys. Moreover, with 337 cases for each variable, surpassing the minimum requirement of 20 for ordinary least squares analysis, the study meets the criteria for analysis. The details of firm availability, sample selection, and response rate are shown in the Appendices.

The study adopted a quantitative approach and utilized an analytical research design. To be more precise, it employed both descriptive and causal comparative research designs in order to assess the aim of this study. To assess the impact on current financing decision, it is employed explanatory variables by one period lag which helps to limit the potential endogeneity issues (Brav, 2009; Hovakimian, 2006). Besides, this study aims to discern the influence of previous trends in firm characteristics on future

financing decisions. This objective necessitates the inclusion of lag variables within the research. To identify the impact of these variables on debt financing, the following function is derived.

ΔLev_{it} = $f(INV_{it\text{-}1}, DIV_{it\text{-}1}, \Delta WC_{it\text{-}1}, PRO_{it\text{-}1}, DEF_{it\text{-}1}, MB_{it\text{-}1}, AGE_{it\text{-}1})$

Where,

ΔLev =   Change in debt in terms of book and market leverage

INV   =   investment scaled by total assets

DIV   =   Dividend scaled by EBIT (if EBIT is positive)

ΔWC =   (Work in progress + trade debtors + other current assets – trade creditors)/ total assets

DEF   =   Deficit is dividends plus change in fixed assets plus change in working capital minus profits normalized by total assets.

Age   =   the age of the firm measured in log of age

Furthermore, both historical and present performance of the firms are employed to ascertain the extent to which they influence leverage, asset tangibility, and payout position within the sample. Besides, to mitigate concerns related to endogeneity, firm and year dummies are incorporated.

Hypothesis development

Investment: Investment increases the demand for external financing. Growing firms place a greater value to their shareholders, thus require more investment. Higher growth opportunities could potentially be influenced by stock mispricing, leading to increased investment through leverage (Adam & Goyal, 2008). Further, a mechanical positive relation may exist between an investment and leverage. The possibility of the firm issuing new capital (debt) is positively connected with the firm's growth opportunities, indicating that firms raise cash to support future investments (Brav, 2009). A firm becomes more leveraged the more it invests ((Kasseeah, 2008) as collateral required for debt financing and normally investment add to such assets (tangible assets). Thus, It is hypothesized that:

H_1: Investment leads a positive direction to debt financing

Working capital: Another crucial factor in financing decisions is working capital. Higher levels of net working capital are linked to reduced external debt issuance and increased rates of capital retirement. This is in line with companies aiming for greater cash reserves with suppliers and larger trade balances (Brav, 2009). Similarly, when firms have limited access to capital market, ceteris paribus financing takes place from trade credits (Faulkender & Petersen, 2006). The measure they employ as a proxy for access to the debt market is determined by whether the firm possesses additional working capital. Thus, It is hypothesized that:

H_2: Firms with higher levels of new working capital will have lower levels of debt capital.

Age: Firm age is one of the important determinant of external financing (debt financing) (Brav, 2009; Pagano, Panetta, & Zingales, 1998). It impacts debt-equity financing because as firms get older, they mature and gain market recognition, which might increase their access to finance, (Berger & Udell, 1995; Goyal et al., 2011; Petersen & Rajan, 2002). They insist that older firms to face fewer constraint and this will exhibit in firms raising fairly more equity financing. It is hypothesized that:

H_3: More mature firms will have a better access to capital market, thus to raise more equity financing.

Dividend: (Benartzi, Michaely, & Thaler, 1997; Grullon, Michaely, Benartzi, & Thaler, 2005) expressed their opinion about a mystery surrounding the implications of dividend hikes. Alterations in the dividend distribution pattern are expected to lead to decrease (increase) future profits. The larger and more established company can easily access the capital markets, pay internal profits as dividends, and raise debt capital to make up for any financing deficit (Cooper & Lambertides, 2018). They evinced that companies that allocate higher dividends also tend to secure external financing through leverage. These firms respond to financing deficits, which increase debt, in a much more convex manner. The dividend payment pattern is consistent with the dividend increase conveying the intention to increase leverage and cannot be explained by shifting a leverage target. It is hypothesized that:

H_4: The firms with larger dividend tend to raise larger debt to finance their ventures.

Deficit: Financial deficit firms issue debt to finance their investment opportunity. Basically, surplus firms have low debt as they hold significant amount of profit for future expansion and other operational needs. Frank and Goyal (2003) strongly test the hypothesis that small firms tend to raise more debt in their financing deficit. Others (Brav, 2009; Lemmon, Roberts, & Zender, 2007) also document that private and small firm rely debt much more financing in their deficit components-dividends, investments, change in working capital, and profitability. Faulkender and Petersen (2006) evinced that financing constraints proxied are the key determinants of leverage and argue that observed debt ratios endogenize issues related to the use of funds by outside creditors. It is hypothesized that:

H_5: Smaller, lower-income, and less liquid firms depend more on debt to cover their financing deficits.

Tobin's Q (market to book ratio): Borrowing from Alti (2003) a stronger test of the claim that constraint firms are more likely to use debt to finance investment opportunities than unconstrained firms. Even after accounting for its relationship to profitability by conditioning on Tobin's Q, he finds that investment is still sensitive to cash flow. Additionally, young, small businesses with high growth rates and low dividend payment ratios show higher sensitivity. The Tobin's Q is the mostly used indicator for growth opportunity and it is most reliable (Adam & Goyal, 2008). Leverage is expected to decrease when firms take advantage of equity mispricing through equity issuance, which is indicated by a higher Tobin's Q (Frank & Goyal, 2009). This makes external financing is highly sensitive

to cash flow surprises. Almeida and Campello (2010) report that constrained firms exhibit lower cash flows, higher Qs, smaller sizes, greater cash holdings, and fewer tangible assets. Thus, it is hypothesized that:

H_6: The firms with high growth opportunity tend to raise less external financing through debt.

Profitability: Since the seminal paper by (Modigliani & Miller, 1958), several studies have focused on the financing decision and considered profitability as a key determinant. However, the theoretical predictions regarding this relationship still remain ambiguous. Trade-off theory predicted that more profitable firms are inclined to utilize higher levels of debt, as they have greater income to benefit from tax savings. However, in a dynamic trade-off model, leverage may exhibit a negative association with profitability. Besides, the pecking order theory also predicts a negative relationship between leverage and profitability. As argued by (Kayhan & Titman, 2007) operating profit is inversely related with leverage due to inactively accumulated gains. Bevan and Danbolt (2002) predicts that more profitable firms hold less amount of debt since more profits provide large amount of financing from internal funds. Several studies confirm the negative relationship between profitability and the financial leverage (Bevan & Danbolt, 2002; Booth, Aivazian, Demirguc-Kunt, & Maksimovic, 2001; Frank & Goyal, 2009; Goyal et al., 2011; Hovakimian, 2006; Rajan & Zingales, 1995; Titman & Wessels, 1988). Thus, it is hypothesized that:

H_7: Firms with higher level of profitability leads to have a smaller leverage in their potential investment.

III. RESULT AND DISCUSSION

Table 1 displays the summary statistics of the variables used in this study. The variables are employed here after following (Almeida, Campello, & Weisbach, 2004; Brav, 2009; D'Amato, 2019; Hovakimian, Opler, & Titman, 2001; Shyam-Sunder & Myers, 1999) as they predict that financing deficit is a key determinant of leverage measures. The table further reveals that the average (median) value of change in book leverage and market leverage are 10.86 (9.28) per cent, and 3.37 (2.68) per cent respectively indicate that Nepalese firms are using that 11 per cent of their asset by debt on each year. The value of incremental debt is ranged from -2.79 per cent to 15.87 per cent in first and third quartile. The incremental market measure is also ranged from -2.60 per cent to 6.10 per cent and the average value is 3.37 per cent.

Change in working capital ranges from -5.63 times to 6.78 times and on an average these firms have 0.621 times working capital to their asset composition. The dividend payment ranges from 0 to 25 per cent, leading to 16 per cent on average. The age of firm ranges from 13 years to 28 years in first and third quartile and average is 21 years. It indicates that it encompasses firms that have reached the average age of 21 years. The average value of profitability of Nepalese firms is 8.70 (6.30) per cent implying that firms usually make their 8.70 per cent of income as dividend to shareholders. Similarly, Tobin's Q ranges from 0.934 to 2.524 times and average is 2.02 times. Finally, the investment

to total assets ranges from 1.50 per cent to 9.50 per cent and average is 8.60 (3.50) per cent. The variation indicated by standard deviation is largest for market leverage 33.60 per cent for dependent variable and lowest for 12.20 per cent for the investment for explanatory variables.

Table 1

Data Summary

Table 1 reports the summary statistics for the sample under study of nineteen non-financial firms listed in NEPSE from 2001 to 2019. The table shows the mean, median, standard deviation, 25th and 75th percentile and the total observations of this study. Cblev is percentage change in book debt, Cmlev is percentage change in market leverage, WCTA is the change in working capital scale by total assets, DivEbit is the payment of dividend to operation income, PRO is the operating income to total assets, Age is the log of firms' age, DEFICIT is dividend plus change in fixed assets plus change in working capital minus profits scaled by total assets, Tobin's Q ratio is the book debt plus market equity normalized by total assets, and InvTA is investment to asset.

Variables	Measuring unit	Mean	Median	SD	Q1	Q3	Obs
Cblev	%	10.869	9.284	14.80	-2.797	15.872	318
Cmlev	%	3.373	2.687	16.20	-2.60	6.10	318
WCTA	Times	0.621	0.629	19.045	-5.632	6.780	337
DIVEBIT	Times	15.900	6.300	21.400	0.000	24.800	337
PRO	Times	8.700	6.300	12.200	1.600	12.700	337
Age	Years	21	19	11	13	28	337
DEFICIT	Times	-0.360	0.010	3.233	-0.650	0.380	321
Q	Times	2.018	1.219	1.801	0.934	2.524	337
INVestTA	Times	0.086	0.035	0.122	0.015	0.095	337

Liberman, Trope, and Stephan (2007) insist that near things are more related to distant things which makes more sense in predicting financing behavior by using lag variable. Basically, lag variables are mostly used in finance literature (Almeida & Campello, 2010; Almon, 1965; Bound, Jaeger, & Baker, 1995; Brav, 2009). In order to reduce potential endogeneity issue, this paper employed one period lag and result is shown in Table 2 and 3. These tables report the regression results of change in working capital, dividend payout ratio, profitability, age of the firm, financing deficit, growth opportunity and size of investment on change in book leverage and market leverage. The first seven models include one of the seven explanatory variables at a time. Models 8 to 9 include two variables at a time, models 10 to 11 include three variables at a time, model 12 includes four variables at a time and model 13 includes all the seven variables simultaneously. Specifically, change in working capital, payout ratio, profitability, deficit, and investment have individually and reliably negative influence on change in book leverage measure whereas growth opportunity is highly significant to change in market leverage. It seems that dividend payment and financing deficit are more sensitive to change in book leverage and profitability, growth opportunity and investment decision are more concerned to change in market leverage.

The coefficient of deficit is inconsistent with previous studies (Brav, 2009; Hovakimian et al., 2001; Myers & Majluf, 1984). They predict that firms adjust their equity with financing deficit. The growth opportunity is negatively and highly significant with change in market leverage indicate that higher market to book ratio may be influenced by equity market mispricing. The result is consistent with (Frank & Goyal, 2009), indicating that growing firm tend to use less debt. Higher growth potential should reduce leverage if market timing theory is correct, as firms issue equity to take advantage of equity mispricing. The higher sensitivity of additional unit of market debt to profitability indicates that firms are more passive in changing their debt in market value terms. The result is consistent with (Goyal et al., 2011; Myers & Majluf, 1984) as they found that more profitable firms tend to be less active in debt market.

When all variables are simultaneously included in model 13, six variables, excluding age, have been determined to be statistically significant. Particularly, working capital, growth opportunity (Q), and investment have exhibited significant impacts on market measures. This discovery implies that working capital, growth opportunity, and investment are more responsive to market measures of leverage. This indicates that Nepalese investors are particularly attuned to market measures of leverage, as the market reflects investors' perspectives on future potentials.

The result is in line with (Frank & Goyal, 2009) and inconsistent with (Brav, 2009), the negative sign of deficit variable imply that Nepalese firms are unwilling to adjust their deficit by debt. Investors are always concern with market value and looking forward to have benefit in the future, thus their interest is more related to forward looking. The evidence is similar with (Barclay & Smith, 2005; Frank & Goyal, 2003) as they described that book values are computed based on history and are supposed to backward looking metrics while market values are calculated based on concurrent values and are supposed to forward looking. It is also observed from the previous studies that earlier papers tend to use book measures, however recent papers employ market measures (for example, (Frank & Goyal, 2009; Shyam-Sunder & Myers, 1999; Xiong, Wu, Hou, & Zhang, 2020).

Surprisingly, profitability was found to be significant in models 3, 9, 10, and 12; however, its significance diminishes in model 13. This could be attributed to the "attenuation effect" or "suppression effect," both of which can alter the significance levels of profitability when transitioning from simpler models to those with all variables. In some cases, the inclusion of additional variables may weaken the significance observed in earlier models. This is evident in the decreased significance of profitability in explaining changes in market leverage in model 13.

Access to Capital Market and External Financing of the Firm

The previous section analyzed the factors basically impact on debt financing. This section focus on how financial performance is more sensitive to small constraint firms relative to large unconstraint firms for their potential funding. Large and small firms vary in their capacity to access capital market. The reason behind the limited access of small firms to capital markets is rooted in their typically younger age, lesser recognition, and

Table 2

Firm specific attributes for changes in book debt

Table 2 reports regression coefficients from a partial adjustment model for debt ratio of non-financial firms listed in NEPSE from 2001 to 2019. Change in book Lev is the change in debt to total assets, dependent variables and WCTA is the change in working capital to total assets, DivEbit is the payment of dividend to operation income, PRO is the operating income to total assets, Age is the log of firms' age, DEFICIT is dividend plus change in fixed assets plus change in working capital minus profits scaled by total assets, MB ratio is the book debt plus market equity normalized by total assets, and InvTA is investment to assets are the explanatory variables, used in this section. Explanatory variables are lagged one period.

Model	Intercept	WCTA	DivEBIT	PRO	AGE	DEFICIT	MB ratio	InvTA	F-Stat	P-value
1	0.47	-0.13							5.81	0.02
	(25.81)	(2.41**)								
2	0.47		-0.04						0.40	0.53
	(23.36)		(0.64)							
3	0.56			-0.37					52.60	0.00
	(26.57)			(7.25***)						
4	0.42				0.03				0.31	0.58
	(4.78)				(0.56)					
5	0.47					-0.02			0.08	0.77
	(24.97)					(0.29)				
6	0.69						-0.58		169.12	0.00
	(30.55)						(13.01***)			
7	0.56							-0.39	61.41	0.00
	(27.22)							(7.84***)		
8	0.47	-0.16	-0.03						4.58	0.01
	(23.67)	(2.96***)	(0.61)							
9	0.47		0.02	-0.38	0.05				18.05	0.00
	(5.42)		(0.38)	(7.23***)	(1.04)					
10	0.49			-0.38	0.04	-0.01			17.83	0.00
	(5.81)			(7.26***)	(0.82)	(0.28)				
11	0.69					-0.02	-0.50	-0.16	56.39	0.00
	(30.21)					(0.49)	(9.71***)	(3.197***)		
12	0.44		-0.01	-0.38	0.07	-0.02			13.83	0.00
	(5.03)		(0.02)	(7.22***)	(1.36)	(0.41)				
13	0.56	-0.143	-0.053	-0.049	0.088	-0.013	-0.47	-0.164	27.05	0.00
	(7.26)	(3.13***)	(1.16)	(0.873)	(1.93*)	(0.283)	(8.49***)	(3.05***)		

*** , ** , * denote 1%, 5%, and 10% level of significance, t- values are given in parenthesis.

Table 3

Firm specific attributes for changes in market leverage

Table 3 reports regression coefficients from a partial adjustment model for debt ratio of non-financial firms listed in NEPSE from 2001 to 2019. Change in net Lev is the change in net debt scale to total assets, dependent variables and WCTA is the change in working capital to total assets, DivEbit is the payment of dividend to operation income, Pro is the operating income to total assets, Age is the log of firms' age, DEFICIT is dividend plus change in fixed assets plus change in working capital minus profits scaled by total assets, MB ratio is the book debt plus market equity normalized by total assets, and InvTA is investment to assets are the explanatory variables used in this section. Explanatory variables are lagged one period.

Model	Intercept	WCTA	DivEBIT	PRO	AGE	DEFICIT	MB ratio	InvTA	F-Stat	P-value
1	0.47	-0.13							5.81	0.02
	(25.81)	(2.41**)								
2	0.47		-0.04						0.40	0.53
	(23.36)		(0.64)							
3	0.56			-0.37					52.60	0.00
	(26.57)			(7.25***)						
4	0.42				0.03				0.31	0.58
	(4.78)				(0.56)					
5	0.47					-0.02			0.08	0.77
	(24.97)					(0.29)				
6	0.69						-0.58		169.12	0.00
	(30.55)						(13.01***)			
7	0.56							-0.39	61.41	0.00
	(27.22)							(7.84***)		
8	0.47	-0.16	-0.03						4.58	0.01
	(23.67)	(2.96***)	(0.61)							
9	0.47		0.02	-0.38	0.05				18.05	0.00
	(5.42)		(0.38)	(7.23***)	(1.04)					
10	0.49			-0.38	0.04	-0.01			17.83	0.00
	(5.81)			(7.26***)	(0.82)	(0.28)				
11	0.69					-0.02	-0.50	-0.16	56.39	0.00
	(30.21)					(0.49)	(9.71***)	(3.197***)		
12	0.44			-0.38	0.07	-0.02			13.83	0.00
	(5.03)			(7.22***)	(1.36)	(0.41)				
13	0.56	-0.143	-0.053	-0.049	0.088	-0.013	-0.47	-0.164	27.05	0.00
	(7.26)	(3.13***)	(1.16)	(0.873)	(1.93*)	(0.283)	(8.49***)	(3.05***)		

***, **, * denote 1%, 5%, and 10% level of significance, t- values are given in parenthesis.

perceived higher credit risk. As a result, they depend more on internally generated funds and bank loans to finance the potential investments. Large firms, on the other hand, are characterized by their maturity, widespread recognition, and enhanced access to both debt and equity markets.

This discrepancy in capital market access has a profound influence on the financing choices made by companies. Small firms, constrained by their limited access and infrequent engagement with capital markets, often hold more cash and encounter greater constraints when seeking financing for potential investments. Therefore, this section examines how small firms adjust their investments, internal funding, or external financing in response to changes in their performance in contrast to their larger counterparts. Table 4 reveals the slopes from the OLS regression of Nepalese non-financial firms for various measures on change of financial performance.

Table 4

Operating Performance and Funding of the Firm

Table 4 reports coefficient estimates from pooled cross section regression with t-statistics in parenthesis of non-financial firms listed in NEPSE from 2001 to 2019. The LEV1 is the sum of short-term debt and long-term debt normalized by total assets, LEV3 is the sum of short-term debt and long-term debt less cash normalized by total assets, CH is the cash holdings to total assets, TNG is the tangible assets to total assets, and DivEbit is the dividend payment to operating income. The regression includes one period lag of profitability variable of the firm. Panel A shows the slope of regression coefficient whereas panel B depicts the P-values of their respective models.

	Panel A: Regression coefficients				
	LEV1	LEV3	CH	TNG	DivEbit
Small ΔPROt	-0.183	-0.155	0.308	-0.056	0.14
	(2.69***)	(1.97**)	(3.03***)	(0.525)	(1.63*)
Large ΔPROt	-0.172	-0.11	-0.194	-0.193	0.324
	(2.62***)	(1.87*)	(2.97***)	(2.95***)	(5.13***)
Small ΔPROt-1	-0.281	-0.36	-0.554	-0.209	0.213
	(2.91**)	(3.83***)	(6.58***)	(2.11**)	(2.15**)
Large ΔPROt-1	0.053	0.039	0.026	0.067	-0.011
	(0.798)	(0.582)	(0.381)	(1.11)	(0.164)
R-square	0.03	0.021	0.038	0.037	0.105
Observations	337	337	333	333	337
	Panel B: P-values				
ΔPROt	0.000***	0.000***	0.000***	0.000***	0.000***
ΔPROt-1	0.000***	0.030**	0.000***	0.840	0.093*

***,**,* indicate 1 per cent, 5 per cent and 10 per cent significance level respectively.

The dependent variables are total book debt ratio, net debt ratio, cash holdings, asset tangibility and dividend payout ratio and the explanatory variables are changes in profitability and lagged profitability. The changes in profitability is more sensitive to

the level of debt for private firms (Brav, 2009; Goyal et al., 2011). It is plausible that the leverage of small firms to be relatively more sensitive to past performance. To control, this section employs lagged variables along with firm dummies, however, the year dummies are not included as firm year observation in which a firm went capital market in order to ensure the results are affected by one-time changes that arise when firm changes its policy. This concept allows to identify the impact in current and previous performance cause in various financial issues of the firm.

The result shown in Table 4 exhibits significant distinctions between the financing behaviors of large and small firms. For small firms, the predicted coefficients performance are -0.183 and -0.155 on LEV1 and LEV2. For the large firms, the coefficients are -0.172 and -0.11 on both leverages. Smaller firms have a higher slope than their larger counterparts, indicating that they are more likely to react and have less possibilities to interact with the capital markets to adjust their leverage. Second, the estimated coefficient of profitability on cash holdings of small firms are higher than their larger counterparts. It suggests that small businesses are pretentious by internal cash dilution and depend more on internal profit than their larger counterparts. The cash holdings of small firms are more vulnerable to profitability comparing with the cash holdings of larger firms. The result matches up with (Brav, 2009; Goyal et al., 2011) that a firm will hoard more cash in times of prosperity and change its cash holdings faster in times of trouble if it rarely enters the capital market. In other words, small firms have less access to capital market are more passive in adjusting their deficit.

Thirdly, a large amount of fixed assets indicates the firm's strength in accessing the capital market easily. This not only underscores the importance of access to the capital market but also signifies an effective approach to making capital expenditure decisions. The sensitivity of tangibility to profitability is considerably lower and insignificant for small firms compared to large firms. This suggests that small firms are less proactive in adjusting their fixed assets. However, the coefficient of lag profitability being negatively significant suggests that the size of fixed assets decreases as past performance increases. As a result, small firms will face higher transaction cost, thus exhibiting slower adjustment of fixed assets comparing with their larger counterparts.

Finally, the findings concerning the interaction terms with changes in profitability indicate a positive correlation between dividend payments and firm performance. Consistent with previous studies (Baker, Farrelly, & Edelman, 1985; Berger & Udell, 1995; Brav, 2009; Lintner, 1956), it is observed that large firms hesitant to adjust their dividend with respect to the changes in firm performance. On the contrary, small firms exhibit a great propensity to adjust their payouts in response to shifts in firm performance. Theoretical evidences show this kind of firm behavior is due to the existence of information asymmetries (John & Williams, 1985; Lussuamo, Lopes, & Oliveira, 2020; Myers & Majluf, 1984) and (Brav, 2009, p. 304). Small and privately owned companies, in contrast, tend to encounter limited information asymmetry. Consequently, their payout strategy is typically more directly influenced by their firm's performance, as anticipated.

IV. CONCLUSIONS AND IMPLICATION

The role of financing decision is determining the value of the firm is central issue to the study of finance and establishes a significant portion of the finance literature. It is examined the financial policies of large and small Nepalese firms. First, we assess whether Nepalese managers are more related to futuristic or historic. Incremental leverage in terms market and book serve as indicators of a firm's financial policy, assessing both future-oriented elements and past performance. The findings reveal that payout ratio and deficits negatively affect change in book leverage, contrary to expectations, suggesting that profitable firms may be hesitant to increase debt financing, the result is consistent with (Cooper & Lambertides, 2018) and (Frank & Goyal, 2009). Similarly, growth opportunities and investments significantly influence change in market leverage, aligning with (Frank & Goyal, 2009) but contradicting with (Adam & Goyal, 2008), implying that firms with investment potential prefer equity financing over debt to avoid additional burdens. A firm uses less debt while still being able to pay dividends and sustain a larger deficit, a trend that suggests firms with higher debt levels may face numerous contractual burdens that exert significant pressure on the firm's financial stability and operations.

Besides, dividend payment and financing deficit appear to be more responsive to a change in book leverage and profitability, while growth opportunity and investment decision are key considerations for changes in market leverage. The significant coefficient and t-values linked to growth opportunities suggest that managers prioritize market dynamics over solely relying on historical aspects of the firm when making decisions related to leverage. This suggests that financing decisions of Nepalese firms are more influenced by capital market considerations, reflecting a forward-looking approach.

The findings further reveal that small firms have limited access to capital markets, which makes them less sensitive to tangibility in terms of profitability compared to large firms. Consequently, smaller companies depend heavily on internal funding and exhibit larger sensitivity in their cash reserves in response to their performance. Conversely, larger firms commonly seek external financing via debt capital, leading to amplified internal profits and financing deficits. Smaller companies often accumulate larger cash reserves when faced with potential investment prospects. These findings support the pecking order hypothesis for small firms and the tradeoff theory for large firms, indicating that their investment decisions are based on their past performance. Lastly, in contrast to large firms that engage in dividend smoothing, whereby dividend payments remain relatively stable regardless of changes in firm performance, small firms' dividend distribution decisions are closely tied to their historical performance.

Theoretical contribution

The study contributes to the literature on the capital structure theory in the context of underdeveloped capital market. This study extends existing literature (Baral, 2004; Silwal, 2018) that focuses on the importance of determinants of financing decision in the Nepalese context. Indeed, this study fills a critical gap in the current body of literature,

as there have been limited investigations into the influence of financing deficit, Tobin's Q, working capital, and profitability on book leverage. Moreover, this study also reveals the novel linkage between Tobin's Q and market leverage. The result shows that Nepalese managers are more futuristic based on which they employ external financing to their business potential. They believe that historic balance sheet provides only the numbers that makes balance sheet into balance.

Policy implication

This study makes several policy implications. One of the aspects that impact financing decision of a firm is its financing deficit (Chang & Dasgupta, 2009; Myers, 1977) and another aspect is Tobin's Q (Al-Slehat, Zaher, Fattah, & Box, 2020; Frank & Goyal, 2009). These significant variances may increase a company's propensity to use debt as a source of funding. It is difficult to differentiate between book leverage and market leverage as managerial perceptions are different from one to another. As a result of the conclusion of this study, managers are urged to implement different financing policies that will aid in improving financial strength of the firm.

From the policy viewpoint, managers focus their eyes towards market information rather than book information because investment in current business will reflect its benefit in future. This is an antecedent in capital market access, whereby managers can introduce policies that tailor themselves to meet the requirements in market dynamics. Moreover, we also encourage Nepalese managers and managers in other developing context to focus on market leverage, be more tolerant of uncertainties and engage in employment of capital considering market information.

Limitation and scope for future research

Although there are some limitations to this study. Because this study is based on the data structure of Nepalese non-financial firms, findings may not be generalized. Future researcher should include the data structure from financial firms as well from other countries. The survey may provide more insight about current financing issues that managers face in this financing decision. Several other factors such as firm size, non-cash expenses, organizational status, and large dataset may include to better understand firm characteristics of financing decision. Nepal's economy is experiencing growth, with a significant influx of small and startup enterprises poised to enter the market. Conducting surveys among these entities could yield valuable insights into their financing decisions. Besides, in today's climate, corporate governance and ethical considerations play a crucial role in earning trust from both investors and the public. Therefore, incorporating these variables into future research would enhance the academic value of the findings.

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APPENDICES

Appendix A1: List of hydro companies listed in NEPSE as on mid-July 2019

sn	Company name	Publicly listed date	IPO date
1	Aankhu Khola	Aswin 24, 2075	
2	Api Hydro	Srawan 6, 2070	2071 Paush 30
3	Arun Kabeli	Kartik, 2073	
4	Arun valley	20-Aug-05	**Available***
5	Barun Hydro	2066 Asadh 31	2071 Jestha 29
6	Butwal Hydro	Publicly available from 2004	**Available***
7	Chilime Hydro	Publicly available from 2005	**Available***
8	Chhyangdi Hydro		2074.14.02
9	Dibyaswori Hydro	2069 Kartik 03	2073 jestha 32
10	Galemdi Hydro		Two reports are available
11	Green Life hydro		075/10/22 IPO issue
12	Himal Dolakha hydro	Bhadra 5, 2076 IPO	
13	Himalaya Urja	Asadh 1, 2074 IPO	
14	Himalayan Power	Asadh 2075 IPO issue	
15	Joshi Hydro	2075 Mansir IPO isssue	
16	Kalika Power		075 Bhadra 28
17	Khanikhola Hydro	2073 Baisakh 29	
18	Liberty Energy	077/5/3 IPO issue	
19	Mailung Khola	Issue 078/4/14	
20	Mountain Energy	071/5/3	
21	Mountain Hydro	2076/2077	
22	National hydro power		**Available***
23	Nepal Hydro developers		074/75
24	Nepal Hydro Power		072/73
25	Nyagdi Group power		072 Kartik 13
26	Panchkanya Mai Hydro		073/74
27	Panchthar power company	10/22/2074	2 year report
28	Radhi Bidhyut Company		070/71 to 076/77
29	Rairang Hydropower dev company		2075/076
30	Rasuwagadhi Hydropower	12/18/2074	075/76
31	Ridi Hydro dev company	2070 Bhadra 31	075/76
32	RuRu Jalbidhyut Pariyojana		076/77 to 077/78
33	Sanima Mai Hydro	2070 Bhadra 19	

*Data available from hydro companies as a sample of this study = 4
*According to the availability of data, there are 4 firms in the hydro sector, 8 in manufacturing, 2 in trading, 4 in the hotel industry, and 1 from other sector, totaling 19 firms included in this study as a sample.

Appendix A2: Manufacturing, Hotel, Trading and Other firms

SN	Company Name	Report	SN	Company Name	Report
1	Arun Vanaspati	NA	20	Bishal Bazar	Available
2	Birat Shoe	NA	21	Nepal trading	NA
3	Bottelrs Nepal (T)	Available	22	Nepal Welfare	NA
4	Bottelrs Nepal (B)	Available	23	Salt trading	Available
5	Butwol spinning mil	NA			
6	Fleur himalaya	NA		Total	2
7	Gorakhkali Rubber	NA			
8	Harisiddi Brick	NA		**Others**	
9	Himalayan Distillery	Available	23	Nepal Dur Sanchar	Available
10	Jyoti Spinning Mil	NA	25	Nepal film development	NA
11	Nepal Bitumin and Barrel	Available	26	Nepal reinsurance	New
12	Nepal Khadya udhyog	Available		available	1
13	Nepal Lube Oil	Available		**Hotels**	
14	Nepal Vanaspati Ghee	No audit report	27	Hotel Solatee	Available
15	Raghupati Jute Mil	NA	28	Hotel Yak and yeti	Available
16	Shree Bhrikuti Paper	NA	29	Hotel Radisson	Available
17	Shree Ram sugar	Available	30	Hotel Hyatt	Available
18	Unilever Nepal	Available	31	Chandragiri Hills	New
19	Shivam Cement	New			
	Total available	**8**		**Total Hotels**	**4**
	Total firms = **33+31 = 64**			4+8+2+4+1	19*

Appendix B1: Number of non-financial firms selected for the study

The table displays the number of non-financial firms used in this study. The N indicates the total number of Manufacturing, Hydro, Trading, Hotel, and Other firms and n denotes the enterprises selected for the study. The last column represents the percentage of sample size of the study.

Sectors	N	n	x100,(%)
Manufacturing and Processing	19	8	42
Hydro Power	33	4	12
Trading	4	2	50
Hotel	5	4	80
Other	3	1	33
Total	64	19	30

Source: Appendix A1, A2 and B2

Appendix B2: Selection of companies, periods of study, and number of observations

The table displays the number of non-financial firms and the number of years the data has been used for the analysis. The second column displays the name of firms, second column represents duration of data and last column denotes the total firm observations of this study

S.N.	Name of companies	Study period	Observations
	A. Manufacturing and Processing companies		
1	Unilever Nepal Limited	2001 to 2019	19
2	Bottlers Nepal (Terai)	2001 to 2019	19
3	Bottlers Nepal (Balaju)	2001 to 2019	19
4	Nepal Lube oil Limited	2001 to 2019	19
5	Nepal Bitumin and Barrel Udhyog Limited	2001 to 2019	19
6	Himalaya Distillery Limited	2002 to 2019	18
7	Nepal Khadhya Udhyog	2001 to 2019	19
8	Shreeram Sugar Mill	2007 to 2019	13
	Total observations		**145**
	B. Hydro, Hotels and Other companies		
9	Chilime Hydro Power	2004 to 2019	16
10	Butwal Hydro Power	2004 to 2019	16
11	National Hydro Power	2003 to 2019	17
12	Arun Hydro Power	2008 to 2019	12
13	Hotel Soaltee Limited	2001 to 2019	19
14	Oriental Hotels Limited	2001 to 2019	19
15	Taragaon Regency Hotel Limited	2001 to 2019	19
16	Hotel Yak and Yeti Limited	2001 to 2019	19
17	Nepal Dursanchar Company	2003 to 2019	17
18	Bishal Bazaar Company	2001 to 2019	19
19	Salt Trading Corporation	2001 to 2019	19
	Total Observations		**192**
	Grand Total Observations		**337**

Source: SEBON, NEPSE database and annual report of respective firms