Prithvi Journal of Research and Innovation
[A Peer-Reviewed, Open Access Multidisciplinary Bilingual Journal; Indexed in NepJOL]
ISSN 2705-4888 [Print]; ISSN 2705-4896 [Online]; JPPS Star-Rated Journal
Volume 3; 15 December 2021; pp. 82-92
eJournal Site: http://ejournals.pncampus.edu.np/ejournals/pjri/

---------- *ORIGINAL RESEARCH ARTICLE*

Corporate Efficiency in the Nepali Hotel Industry

Bhupal Jaishi
Faculty of Management, Prithvi Narayan Campus, Pokhara

Article History:
Submitted 05 October 2021
Reviewed 27 November 2021
Accepted 13 December 2021

Corresponding Author:
Bhupal Jaishi
Email: bpl.jaishi@gmail.com

Article DOI:
https://doi.org/10.3126/pjri.v3i1.41636

Copyright Information:
Copyright 2021 © Authors of this journal; With permission of the authors, the copyright is transferred to the publisher for the first print and online edition only. This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

Publisher:
Centre for Research and Innovation
Prithvi Narayan Campus
Tribhuvan University
Pokhara, Nepal
[Accredited by UGC, Nepal]

Tel.: +977-61-576837
Email: research@pncampus.edu.np
URL: www.pncampus.edu.np

ABSTRACT

Financial sources and corporate investment are the key components for business operation and corporate activities focus on to increase efficiency. The study has attempted to analyze the impact of leverage and firm-specific variables on efficiency of Nepali hotel industry. In this study, efficiency is the dependent variables whereas the independent variables are leverage, size, tangibility and growth. The descriptive and causal comparative research design has been used to examine and analyze the impact on efficiency. The data were collected from annual reports of respective hotels. The study was based on 18 observations and the sample comprises of three hotels, which were purposively selected. Descriptive statistics, correlation and regression analysis have been employed to assess the relationship among the variables. The result showed that the hotels having high leverage have higher efficiency. This study concluded that size, leverage, growth and tangibility are the major factors to determine and increase the corporate efficiency. The findings of the study suggested that there are practical implications to take financing, investment and operating decisions of service sectors like hotels of Nepal. The study has also aimed to support the increase in corporate efficiency.

KEYWORDS: Efficiency, leverage, size, profitability, growth

INTRODUCTION

The capital structure is a blend of equity and debt capital as a source of financing and maintaining for business investment. The use of debt financing to invest in corporate assets is leverage. Whatever the sources are, the business activity must be financed through appropriate sources. Financial sources and efficiency are connected to the ability of the firm that can meet its stakeholders' desired goals (Simerly & Li, 2000). Fixed assets and working capital requirements are supported by finance that maintains the existence of business and supports to increase efficiency of the organization.

The concepts of productivity and efficiency have drawn an attention of many individuals, organizations and countries in recent years. In an organizational context, performance is reflected through productivity and efficiency. The position of shareholders' wealth depends upon the profitability and efficiency. Therefore, professionals, economists and even governments should work towards productivity and efficiency.

Efficiency is defined as the comparative relationship between output and input. From each input level to the highest productivity level, it brings the condition of efficiency. In this case, Coelli, Rao and Battese (1998) suggest that firm's ability to obtain the maximum output through the utilization of minimum sets of inputs is efficiency. Similarly, Rogers (1998) suggests that any firm is efficient if it obtains the highest output from a set of inputs.

The production of higher units of output from a given set of input or same unit of output from the minimum units of input are the ways of increasing efficiency. Thus, higher efficiency demands to generate more output with the same amount of inputs or lower consumption of inputs to produce the same level of production output (Rogers, 1998). Thus, the highest productivity, which is also known as efficient point, is possible when the maximum output is gained at a specific input level. Hence, increasing efficiency definitely raises productivity (Rogers, 1998). This study focuses on the efficiency, leverage and firm-specific variables. The size represents the natural logarithms of sales; tangibility denotes the ratio of tangible assets to sales; the rate of operating profit on sales is indicated as profitability and change of percentage in sales is the representation of growth.

Hotel industry is one of the important service sectors, contributing to the national economy in various ways. It provides job opportunity and improves the quality of life in local communities (Bohdanowicz & Zientara, 2009). It is the non-financial sector of the country that plays a vital role in the overall economic system as it supports to mobilize the economic resources of the country. Development and growth of this sector support the entire economic development (Ansah-Adu *et al*., 2012). The higher leverage ratio of hotel industries is found in comparison of market average (Damodaran, 2019).

To increase the efficiency, most of the firms attempt to maintain the leverage level at their capital structure level as desired (Diez-Esteban et al., 2017). The leverage decision is important to maximize stockholder's wealth for the continued existence of firms (Akintoye, 2008). There is no consistency in the study result regarding leverage and efficiency. Akintoye (2008), Dare and Sola (2010) and Le and Phan (2017) found a positive relationship while Iorpev and Kwanum (2012) reported a negative relationship. Prahlathan and Rajan (2011) concluded no relationship between leverage and efficiency.

The study deals with the assessment of efficiency, leverage and firm-specific variables. The components like size, profitability, tangibility and growth are firm-specific variables. The models are developed to show the variable wise effect on these efficiency and leverage in the hotel industry of Nepal.

As discussed above, the past researches on the capital structure and leverage explain how the firms determine their capital structure; several influential theories of capital structure have been proposed to increase efficiency and fulfill the organizational objectives. Many studies have tested these theories in developed countries but the results of those studies are found to be inconsistent. Though these results are obtained in the context of more developed countries, whether or not these theories can be applied to the context of Nepal, especially in hotel sectors has been discussed in this study. What is the relationship and impact among leverage, firm-specific variables and efficiency in this sector? These issues are analyzed using the recent data through this study.

In this study, the major objective is to interpret the impact of leverage and firm-specific variables on firm efficiency in the hotel industry of Nepal. The study further analyzes the structure and patterns, relationship of leverage and firm-specific variables on efficiency. It can provide the basic foundation to take decisions for the corporate stakeholders such as managers, fund providers and further researchers. Those companies which are interested to increase efficiency can take the benefit through this research. Especially, it is beneficial to Nepali non-financial and service industries to design capital structure, focusing on efficiency issues.

Most of the prior researches are based on manufacturing and banking sectors. Therefore, the research conducted under leverage, efficiency and firm-specific variables in the context of hotel has been less explored in the Nepali context. Likewise, most of the prior researches have conducted study on any one variable focused on efficiency, leverage and firm-specific variables. This research includes all these variables.

Overall, this study will be useful in providing important information to investors, promoters, managers, shareholders, regulators and many other stakeholders of the hotel industry in Nepal. This study is equally significant for the financial corporate sectors of Nepal.

REVIEW OF LITERATURE

The theory of capital structure was first developed by Modigliani and Miller (1958) under the restrictive assumptions of tax free world, competitive and perfect market, and frictionless financial transactions. The conclusion of the theory was that the firm's value is independent from the capital structure. In this way, the managers cannot change the firm value or cost of capital by the level of leverage.

Scholars like Kraus and Litzenberger (1973) also developed the theory of trade off that deals with an idea to balance the gains and costs associated with leverage. According to this theory, the levered firm is valued as unlevered firm`s value plus total present value of tax saving in cost of debt. There are sufficient empirical findings to support trade-off theory. The theory concluded that the benefit from tax saving compensates the cost of financial distress and position of trade-off, which takes place in the firm, increasing corporate efficiency.

Similarly, Jensen and Meckling (1976) developed another theory called the agency theory to determine the components of capital structure. Costs associated with conflicts of interest among the different stakeholders were considered as the agency cost as per this theory. The incentive issues were focused as separation between ownership and management in this theory. The managerial incentive supports to encourage the managers and increase the corporate cost but it may harm shareholders' wealth and efficiency of the firm.

In line with the same capital structure, Naeem *et al*., (2016) analyzed the impact of capital structure measures on performance in the context of Pakistan as indicated by liquidity, profitability, tangibility, interest rate as well as growth rate of the banking sector. The study demonstrated that profitability, liquidity, tangibility, interest rate and growth rate and capital structure have a close relationship and work together.

In his study, Bhattarai (2016) has studied about the effect of capital structure on firm performance of selected manufacturing companies of Nepal that analyzed about how it controls the effect of the size of firm, tangibility and growth rate. It concluded that the capital structure has a significantly negative impact on firm performance of manufacturing companies. Apart from the capital structure, the size of firm and tangibility are the main determinants of firm performance of manufacturing companies. Similarly, in another study, the impact of financial leverage on firm performance has

been examined, which showed that the impact of financial leverage on firm performance is negative (Pradhan & Bhattarai, 2016).

A study by Diez-Esteban et al., (2017) concluded that when firms keep their leverage level close to the target structure level to increase their efficiency, there can be a positive relationship between these variables. However, Assaf and Tsionas (2019) discovered that there is a negative relationship between leverage and firm efficiency in hotel industries. They further concluded the mixed relationship between firm-specific variables and corporate efficiency.

In another study in the context of Nepal, Jaishi and Poudel (2019) examined the relationship between the capital structure and firm efficiency of non-financial institutions. Their study showed that the firms, which have higher leverage are less efficient and more efficient firms use low leverage. Similarly, Jaishi (2020) studied the capital structure and its impact on financial performance of insurance companies. It showed that insurance companies which suffer a high debt ratio have better financial performance. It also showed an increase in debt ratio and tangibility increase in return on assets and earnings per share. In the United States, Gomez et al., (2021) conducted a study on leverage and performance in the hospitality industry. The study concluded that the hospitality industry was highly indebted, indicating a significantly a negative impact of leverage on firm efficiency.

The above explanation demonstrates that the capital structure studies explain how firms determine their capital structure, and therefore various influential capital structure theories have been suggested. Most of the theories are developed and empirically tested in countries having strong economy but the results have been shown to be inconsistent. Despite the fact that these results were achieved in the context of more developed countries, such research based on more recent data are not available in developing countries like Nepal in hospitality industry. In addition, there is a limited study on the non-financial sectors. As a result, the study contributes to the variable, knowledge and empirical gaps.

The leverage and firm-specific variables are used as independent variables and efficiency as explanatory variable. The components like size, tangibility, profitability and growth are firm-specific variables, which are based upon the above mentioned literature.

METHODOLOGY

In this study, the descriptive and causal comparative research designs have been applied to research on the given topic. The descriptive research design deals with the real and actual condition, situation and facts on study variables. But the causal comparative research design establishes the relationship of cause and effect among efficiency, leverage and firm-specific variables in the hotel industry. More specifically, the study has analyzed the impact of size, leverage, tangibility, profitability and growth on efficiency of firms. In this study, the correlation analysis deals with the relationship's direction among the variables whereas the regression analysis provides both magnitude and direction among the variables.

The nature of the data is quantitative, which is based on the secondary data. The study has taken its population from all the listed hotels in NEPSE of Nepal. Four hotels listed in stock exchange of Nepal are population of the study. Three hotels are the sample of the study. The sample of three hotels has been selected on the basis of listing period more than five fiscal years using the purposive sampling method. The business cycle usually takes four to six years; therefore, the period of six years has been considered for the data. The total number of observation used in the study is 18. The data are collected from annual reports of the concerned companies and further processed to generate the

required variables as per literature using Microsoft Excel (Ms-Excel). The descriptive statistics has been used to deal with the mean, standard deviation, minimum and maximum values of variables that explain the characteristics study variables. The correlation analysis is helpful to measure the direction and magnitude of relationship between the dependent and independent variables. The regression analysis is helpful to study the influence of independent variable over dependent variables that are combined with other variables. Efficiency has been used as dependent variable and leverage, size, profitability, and growth as independent variables. Thus, the data are analyzed using Ms-Excel office package, presenting the output of the analyzed data in tables and figures as required by the study.

Model Specification

In this study, the relationship between leverage, firm-specific variables and efficiency has been analyzed using the econometric model. For instance, the regression model has been given below to examine the empirical effect of leverage and firm-specific variables on efficiency.

EFFICIENCY = f (LEV, SIZE, TAN, PROF, GTH).

According to this model, the dependent variable is efficiency (EFF) as indicated by total output to total inputs. Independent variables like size, leverage, tangibility, profitability and growth are used to test on efficiency of firms. The following is the model as discussed above:

$EFF = \beta_0 + \beta_1 LEV + \beta_2 SIZE + \beta_3 TAN + \beta_4 PROF + \beta_5 GROWTH + e.$

where,

EFF = Efficiency

B = Constant term and coefficient of the variable

LEV= Leverage

SIZE= Logarithm of sales

TAN= Ratio of tangible assets to sales

PROF= profitability

GROWTH= Growth in sales

e= Error term

RESULT AND DISCUSSION

Structure and Patterns of Efficiency, Leverage and Firm-specific Variables

Efficiency is the outcome that indicates the resource mobilization skill of the organization. The fiinancing decision indicated by size, leverage, tangibility, profitability and growth are the variables that influence the overall efficiency of business. The structure and patterns of efficiency, leverage and firm-specific variables for the period of 2014/15 to 2019/2020 have been presented in Table 1.

Table 1

Structure and Patterns of Study Variables

Variables		2019/20	2018/19	2017/18	2016/17	2015/16	2014/15	Mean	SD
	SHL	1.1153	1.2653	1.2832	1.1237	1.1246	1.2329	1.1909	0.0780
EFF	TRH	0.0585	1.4108	1.3893	1.4633	1.2574	1.2760	1.1426	0.5370
	OHL	1.1910	1.5414	1.5830	1.4669	1.4910	1.6177	1.4818	0.1531
	MEAN	0.7883	1.4059	1.4185	1.3513	1.2910	1.3756		

	SD	0.6331	0.1381	0.1520	0.1971	0.1855	0.2108		
	SHL	0.3358	0.3418	0.3544	0.3813	0.3595	0.3704	0.3572	0.0171
LEV	TRH	0.3141	0.2864	0.2999	0.3305	0.4037	0.4035	0.3397	0.0517
	OHL	0.3305	0.3231	0.4064	0.4543	0.5997	0.6596	0.4623	0.1398
	MEAN	0.3268	0.3171	0.3536	0.3887	0.4543	0.4779		
	SD	0.0113	0.0282	0.0533	0.0622	0.1279	0.1583		
	SHL	20.9373	21.3299	21.2205	21.2183	20.9417	21.0871	21.1225	0.1613
SIZE	TRH	15.4066	21.1910	21.0027	20.9603	20.7409	20.8775	20.0298	2.2698
	OHL	20.3529	20.9351	20.8825	20.8248	20.6233	20.7802	20.7331	0.2146
	MEAN	18.8989	21.1520	21.0352	21.0011	20.7686	20.9149		
	SD	3.0385	0.2003	0.1713	0.1999	0.1610	0.1568		
	SHL	0.7598	0.7172	0.7164	0.6199	0.5400	0.5500	0.6505	0.0938
TAN	TRH	0.5307	0.5368	0.5831	0.6630	0.7163	0.8126	0.6404	0.1113
	OHL	0.7318	0.7249	0.6699	0.9806	0.6433	0.6405	0.7318	0.1280
	MEAN	0.6741	0.6596	0.6565	0.7545	0.6332	0.6677		
	SD	0.1249	0.1064	0.0677	0.1970	0.0886	0.1334		
	SHL	0.0515	0.1555	0.1629	0.0936	0.0733	0.1492	0.1143	0.0476
PROF	TRH	-0.0239	0.1369	0.1120	0.1325	0.0711	0.0935	0.0870	0.0596
	OHL	0.0336	0.1299	0.1248	0.1061	0.1385	0.1862	0.1199	0.0500
	MEAN	0.0204	0.1408	0.1333	0.1107	0.0943	0.1430		
	SD	0.0394	0.0132	0.0265	0.0199	0.0383	0.0467		
	SHL	-0.3623	0.1159	0.0030	0.2755	-0.1384	0.0249	-0.0136	0.2188
GROWTH	TRH	-0.9969	0.2071	0.0433	0.2454	-0.1277	-0.0241	-0.1088	0.4571
	OHL	-0.4413	0.0540	0.0594	0.2232	-0.1452	-0.0137	-0.0439	0.2284
	MEAN	-0.6002	0.1257	0.0352	0.2480	-0.1371	-0.0043		
	SD	0.3459	0.0770	0.0291	0.0263	0.0088	0.0258		

The level of efficiency is in fluctuating pattern; the highest efficiency is 1.4185 times in the fiscal year 2017/18 and the lowest is 0.7883 times in 2019/20. The cause of this decrease is the effect of COVID 19, followed by 1.2910 times in 2015/16 due to the effect of natural disaster of earthquake. The average efficiency level of OHL is maximum, that is, 1.1818, followed by SHL 1.1909 and the minimum level of TRH is 1. 1426. Standard deviation of TRH is maximum, that is, TRH 0.5370 and minimum SHL 0.0780 during the study period. The debt level that is denoted as leverage is also in the fluctuating trend during the study period. The maximum level of debt used by the hotel sector of Nepal is 47.79 percent in the fiscal year 2014/15 and the minimum debt level is 31.71 percent in the fiscal year 2018/19. The company-wise average leverage of OHL is maximum (46.23 percent) and minimum of TRH (33.97 percent). There is lower variability in leverage in SHL (1.71 percent) and maximum of OHL (13.98 percent) as indicated by the result of standard deviation. The average size [Ln(Sales)] in the industry is comparatively in consistent position during the study period. It is in the increasing pattern from the fiscal year 2015/16 to the fiscal year 2018/19 from 20.7686 to 21.1520. It, then, decreased to 18.8989 in the fiscal year 2019/20. The structure and pattern of tangibility shows the increasing trend in the initial study period whereas it shows the decreasing trend in the later period of the study. It indicates the fluctuating trend of

tangibility. Profitability is the difference between income and operating expenses. The ratio has started from 14.30 percent in 2014/15 and ended at 2.04 percent in the fiscal year 2019/20, the year of COVID 19. The growth rate is highest, that is, 24.80 percent in the fiscal year 2016/17 and close to negative, that is, 60.02 percent as minimum in the fiscal year 2019/20.

Regarding efficiency, OHL follows an increasing trend reflecting higher efficiency of this company. TRH shows fluctuating trends of efficiency whereas SHL follows the consistent trend. OHL has been utilizing the higher debt portion as compared to other companies. It shows that the company relies more on debt in order to increase efficiency. SHL comprises the moderate use of debt and TRH, the least portion of debt as compared to other companies to increase the efficiency. The size as represented by sales indicates that SHL has the higher sales and OHL the lesser sales. It shows that SHL has increased the sales during the study period. TAN as represented by the investment of tangible assets indicates the TRH higher investment while SHL the lower investment. Profitability of OHL is the highest as compared to other companies, reflecting the best performance of the company. The sales growth rate is the highest in case of TRH, indicating the regular growth of sales during the period.

Descriptive Analysis of Efficiency, Leverage and Firm-Specific Variables

The descriptive statistics presented in this study describes the position of study variables as per the requirements of research questions. To show the position of leverage, financial ratios are presented and analyzed. The position of efficiency has been presented and analyzed in terms of times. The description of study variables are presented in a classified way through descriptive statistics of hotel industry. Major variables like minimum value, maximum value, mean and standard deviation are presented in Table 2.

Table 2

Descriptive Statistics of Major Variables

Variables	Minimum	Maximum	Mean	SD
EFF	0.0585	1.6177	1.2717	0.3424
LEV	0.2864	0.6596	0.3863	0.0986
SIZE	15.4065	21.3299	20.6284	1.3239
TAN	0.5307	0.9806	0.6742	0.1132
PROF	-0.0238	0.1862	0.1070	0.0516
GROWTH	-0.9969	0.2755	-0.0554	0.3041

Table 2 shows the descriptive statistics for the study variables. The dependent variable is efficiency (Sales/OE) and the independent variables are size, leverage, tangibility, profitability and growth. In this table, the leverage ranges from 28.64 percent to 65.96 percent, having an average of 38.64 percent. In addition, the level of efficiency varies from 0.0585 times to 1.62 times with an average of 1.27 times. Similarly, the size [ln(Sales)] ranges from 15.40 to 22.33, with an average of 20.63. In this way, the tangibility (Tangible Asset/Total Assets) varies from 53.07 percent to 98.06 percent, with an average of 67.42 percent. The profitability position indicated as operating profit to sales ranges from the negative 2.38 percent to 18.62 percent with an average of 10.70 percent. The growth in sales varies from the negative 99.69 percent to 27.55 percent, having an average of negative 5.54 percent. The standard deviation of efficiency and growth is higher and lower for the profitability. The results indicate that the efficiency of the selected companies is not to the market standard. The variables mentioned above

show a concern in terms of profitability and growth rate of sales. It indicates that the profitability and growth rate for the hotel industry is not up to the standard.

Relationship among Efficiency, Leverage and Firm-specific Variables

As indicated by the descriptive statistics, Table 3 presents the results of the study as computed by the Pearson Correlation Coefficients. It demonstrates the correlation coefficients among variables used in this study.

Table 3

Relationship among Selected Variables

Variables	EFF	LEV	SIZE	TAN	PROF	GROWTH
EFF	1					
LEV	0.373*	1				
SIZE	.856**	0.111*	1			
TAN	0.319	0.171*	0.266*	1		
PROF	.782**	0.395	.686**	0.032	1	
GROWTH	.792**	0.096	.832**	0.212*	.767**	1

***. Correlation is significant at the 0.01 level*

**. Correlation is significant at the 0.05 level*

In the table above, there is a positive correlation between efficiency and other independent variables. It shows the significant relationship between efficiency and size, leverage, profitability and growth, but the relationship with tangibility is not significant. The correlation coefficient between leverage and size, leverage and tangibility is significant and positive. Tangibility, profitability and growth have positive and significant relationship with the size. Tangibility and profitability are significantly correlated with growth. It implies that the higher ration in size, leverage, profitability and growth increases the efficiency in the hotel industry of Nepal.

Impact of Leverage and Firm-specific Variables on Efficiency

Table 4 below presents the impact of individual variables on efficiency, followed by the impact of significant variables and study variables that have been given using multiple regression equation. To analyze the result, the normality and multicollinearity were checked. The data are normal as indicated by normal pp plot, and VIF was less than 2. The results of the estimated regression show size, leverage, tangibility, profitability and growth on efficiency of the hotel industry.

Table 4

Impact of Leverage, Size, Tangibility, Profitability and Growth on Efficiency of Nepalese Hotel Industry

Model	Intercept	LEV	SIZE	TAN	PROF	GROWTH	R^2	F Value
1	0.771**	0.373*					0.139	2.578*
	(2.405)	(1.608)						
2	-3.295**		0.221**				0.733	43.826**
	(4.767)		(6.620)					
3	0.621			0.966			0.102	1.817
	(1.268)			(1.384)				

4	0.717**				5.184		0.611	25.133**
	(5.860)				(5.013)			
5	1.321**					0.891**	0.627	26.905**
	(25.558)					(5.013)		
6	-2.239*	0.772**	0.153**		1.201	0.158*	0.841	17.158**
	(-2.120)	(1.727)	(2.928)		(0.900)	(0.594)		
7	-2.311*	0.637*	0.142*	0.340	1.670	0.112*	0.851	13.680**
	(2.120)	(1.342)	(2.648)	(0.897)	(1.157)	(0.409)		

a. Figures in parenthesis are t-values
b. The sign asterisk (*) indicates that result is significant at 5 % and double asterisk (**) sign indicates that result is significant at 1 %

From Model 1 to 5, the result of the regression shows the impact of size, leverage, tangibility, profitability and growth individually on efficiency. From Model 6, the impact of size, leverage, profitability and growth have been shown that have a significant impact on efficiency. Finally, from Model 7, the impact of all study variables on efficiency have been shown in this study. The beta coefficients are positive for size, leverage, tangibility, profitability and growth, implying that an increase in leverage or debt financing increases the efficiency. The result is consistent with Dare & Sola (2010). The positive and significant impact of size on efficiency justifies that it increases in sales and improves efficiency level of the hotel industry in Nepal. The finding is similar to Rajan and Zingals (1995). The impact of tangibility on efficiency is positive but not significant that implies more investment on tangible fixed assets to increase corporate efficiency in the hotel industry of Nepal. The finding is consistent with Harris and Raviv (1990). An increase in profitability and growth increases efficiency. It implies that profitable and growing companies are able to minimize operating cost and generate the higher level of output or sales. The result is supported by the findings of Myers (1977) and Myers and Majluf (1984).

CONCLUSION

In conclusion, this study showed that the variables like size, leverage, profitability and growth are the significant factors to increase the efficiency of the Nepali hotel industry. The conclusion is consistent to the theory of economies of scale. The theory reflects that higher investment in assets leads to decrease in per unit cost and thus increases the efficiency of the firm. The firms having higher leverage are more efficient and more efficient firms use the higher level of debt. As per the trade off theory, higher the leverage, the higher will be the efficiency or performance of the company. The positive and significant impact of size on efficiency implies that an increase in revenue pushes up the efficiency level and Nepali hotels are able to control the operating cost of the business. An investment on tangible fixed assets impacts positively, but not significantly. It means the hotel industry of Nepal has the sufficient capacity to increase revenue and efficiency. The increased profitability encourages the efficiency as indicated by positive impact of profitability on efficiency. In this research, profitability has been measured as the difference between the total revenue and operating cost. It indicates that higher profitability leads to the higher level of efficiency. Growth in sales is another significant variable that positively influences efficiency. It implies that an increase in the growth rate helps the efficiency of hotel industry go up.

The study has focused on listed hotels of Nepal, so other financial and non-financial sectors have not been included in the study. There are only four hotels listed in

Nepal Stock Exchange, so the number of samples in Nepal is lower. The study is based on the secondary sources of information available in the company's annual reports and websites of the sample companies and other websites. Research based on the secondary data is not far from limitations due to its inherent character. The study assumes a level of homogeneity across sampled hotels, which may not be true since hotels are of different nature. Some of statistical as well as financial tools of comparison and analysis have been used in the study. Hence, the drawback and weakness of those tools may have an adverse effect on the outcome of the study. These are the limitations of the study. So there is a scope for future research including additional variables such as macro-economic variables (inflation rate, GDP growth rate, inflation rate). Both the primary and secondary data can be used to get more valid results. The study is based on the hotel industry of Nepal. Hence other non-financial and financial companies need to be incorporated in the sample to draw a wider view about the effect of leverage, firm-specific variables on efficiency.

REFERENCES

Akintoye, I. R. (2008). Sensitivity of performance to capital structure. *European Journal of Social Science, 7*(1), 163-144.

Ansah-Adu, K., Andoh, C., & Abor, J. (2012). Evaluating the cost efficiency of insurance companies in Ghana. *Journal of Risk Finance, 13*(1), 61-76.

Assaf A. G., & Tsionas, M.G. (2019). Revisiting shape and moderation effects in curvilinear models. *Tourism Management, 75*, 216–230.

Bhattarai, Y. (2016). Capital structure and firm performance: Evidence from Nepalese manufacturing companies. *Journal for Studies in Management and Planning, 2*(3), 138-150.

Coelli, T.; Rao, D. S. P., & Battese, G. E. (1998). *An introduction to efficiency and productivity analysis*. Kluwer Academic.

Dalci, I. (2018). Impact of financial leverage on profitability of listed manufacturing firms in China. *Pacific Account Rev, 30*, 410–432.

Dare, F. D., & Sola, O. (2010). Capital structure and corporate performance in Nigeria petroleum industry: Panel data analysis. *Journal of Mathematics and Statistics, 6*(2), 168-173.

Garcia-Gomez, C.D., Esteban, J.M., Demir, E., & Bilgin, M.H. (2021). Leverage and performance: The case of the US hospitality industry. *Quantitative Finance and Economics, 5*(2), 228-246.

Harris, M., & Raviv, A. (1990). Capital structure and the informational role of debt. *Journal of Finance , 45*(2), 321-349.

Jaishi, B. (2020). Capital structure and its impact on financial performance in insurance companies of Nepal. *The Journal of Nepalese Business Studies, 12*(1), 89-106

Jaishi, B., & Poudel, R. L. (2019). Capital structure and firm efficiency of nonfinancial institutions in Nepal. *The Journal of Nepalese Business Studies, 11*(1), 19-31.

Myers, S. (1977). Determinant of Economic Borrowing . *Journal of Financial Economics, 5*, 147-175.

Myers, S., & Majluf, N. (1984). Corporate financing and investment decision when firms have information that investors do not have. *Journal of Financial Economics, 13*, 187-221.

Naeem, A., Misbah, B., Sidra, B., & Hafiz, T. (2016). Capital structure impact on banking sector performance in Pakistan. *International Review of Management and Business Research, 5*(2), 519-535.

Pradhan, R.S., & Bhattarai, M. (2016). Financial leverage and firm performance: A case of Nepalese commercial banks. *Nepalese Journal of Finance*, *3*(1), 1-14.

Prahalathan, B., & Rajan, R. P. C. (2011). The impact of capital structure-choice on firm performance: Emperical investigation of listed companies in Colombo stock exchange, Srilanka. *International Journal of Research in Commerce and Management*, *2*(4), 12-17.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structrure ? Some evidence from international data. *Journal of Finance, 50*(5), 1421-1460.

Rogers, M. (1998). *The definition and measurement of productivity*. The University of Melbourne, Australia, Melbourne institute of applied economics and social research. Working paper 9/98.

Simerly, R.L., & Li, M. (2000). Environmental dynamism, capital structure and performance: A theoretical integration and empirical test. *Strategic Management Journal*, *21*(1), 31-49.

Warokka, A, Herrera, J., & Abdullah, H. (2011). East Asian corporate governance: A test of the relation between capital structure and firm performance. *International Journal of Economics and Finance Studies*, *3*(2), 1-10. https://dergipark.org.tr/en/pub/ijefs/issue/26155/275470

ANNEX 1

Financial Data of Hotel Industry

Company	Year	Eff.	Lev.	Size	Tan.	Prof.	Growth
SHL	2019/20	1.11535	0.33582	20.9373	0.75976	0.05154	-0.36227
	2018/19	1.26533	0.34179	21.3299	0.71721	0.15551	0.115892
	2017/18	1.28324	0.35441	21.2205	0.71641	0.16293	0.002963
	2016/17	1.12372	0.38127	21.2183	0.61987	0.09355	0.275519
	2015/16	1.12463	0.35945	20.9417	0.54	0.07327	-0.13839
	2014/15	1.23291	0.37044	21.0871	0.54997	0.14922	0.024928
TRH	2019/20	0.05852	0.31407	15.4066	0.53073	-0.0239	-0.99692
	2018/19	1.41085	0.28642	21.191	0.53684	0.13692	0.207137
	2017/18	1.38934	0.29988	21.0027	0.58309	0.11198	0.043284
	2016/17	1.4633	0.33048	20.9603	0.66298	0.13254	0.245414
	2015/16	1.25739	0.40372	20.7409	0.71628	0.07113	-0.12774
	2014/15	1.27604	0.40353	20.8775	0.81256	0.09353	-0.0241
OHL	2019/20	1.19101	0.33051	20.3529	0.73181	0.03358	-0.44134
	2018/19	1.54144	0.32309	20.9351	0.72486	0.12995	0.053987
	2017/18	1.58298	0.40643	20.8825	0.66994	0.12484	0.059442
	2016/17	1.46686	0.45427	20.8248	0.98062	0.10608	0.223189
	2015/16	1.49099	0.59973	20.6233	0.64331	0.13854	-0.14518
	2014/15	1.61771	0.6596	20.7802	0.64045	0.1862	-0.01366