

## **THE RELATIONSHIP BETWEEN FINANCIAL LEVERAGE AND PERFORMANCE OF HOTEL AND LEISURE COMPANIES LISTED IN PSE**

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### **Abstract**

This study aims to examine the significant relationship between financial leverage and performance of hotel and leisure companies listed in the Philippine Stock Exchange (PSE). The study tends to cover the years span of 2012 to 2017 which may involve the five companies using descriptive, correlation, and regression analysis. Based on multiple linear regression analysis, financial leverage, measured through short-term debt ratio, long-term debt ratio, and debt-to-equity ratio, does not predict financial performance nor market performance for the five hotel and leisure companies listed in PSE. These results set to increase stakeholders' awareness and companies' competitiveness which will enable them to control any circumstances in the future time.

*Keywords:* Financial leverage, Financial performance, market performance

Firms need capital in their operations. They can finance their operations using internal funds, or by issuing debt or equity (Wainaina, 2014). Financing choice is vital to

every firm as the optimal capital structure between debt and equity may have impacts on the value of the firm as well as its stock prices in the securities market (Raza, 2013). Some firms make investments by borrowing whereas others depend more on equity. For each funding choice, there is an associated cost. The cost associated with issuing equity or more commonly known as common stock or ordinary shares is dividends. Meanwhile, the cost associated with debt or borrowing money is interest payments.

Oftentimes, managers use a combination of debt and equity to finance their assets (Ahmad, 2015). Companies that rely on equity financing have no fixed charges associated with debts to pay. If a firm relies on lenders to raise funds, it must pay the cost of the borrowed money, which pertains to interest, and when a firm borrows extensively, then it has to pay more interest and it therefore reduces net income consequently lowering its profitability (Al-Momani, et. al 2017).

Leverage refers to the ability of a firm to use available resources to make maximum profits for the stakeholders (Ojo, 2012). It refers to the use of a significant amount of debt and/or credit to purchase an asset, operate a company, acquire another company, etc. Generally, the cost of borrowed money is much less than the cost of obtaining additional shareholders' equity. This is why it is usually wise for a corporation to use some debt and leverage.

The focus of this study is on the hotel and leisure companies listed in the Philippine Securities Exchange Composite Index (PSE). The researchers aim to study the relationship between financial leverage as determined by debt ratios such as debt-to-equity ratio, short-term debt ratio, and long-term debt ratio to the financial performance and market performance of the companies based on the

observation from the trends of the five companies in the years 2012 to 2017. At this point, the researchers want to examine the trend of the companies' quantitative factors and the overall relationship between financial leverage and financial and market performance to the hotel and leisure industry.

## **Review of Related Literature**

The financing decision is a critical concept in corporate finance. In essence, the issues that are discussed in detail are the factors that a company takes into account when making its financing decision.

Researchers analyze the debt ratios and try to determine whether an optimal capital structure exists or not. Optimal capital structure is generally defined as the one which minimizes the cost of capital for the company, while maximizing the value of the company. In other words, the optimal capital structure is one which maximizes the profitability of the company.

**Empirical Review on Capital Structure.** Chadha and Sharma (2015) noted that the capital structure is a continuous decision-making process that is essential when a firm needs funds for its projects. They add that capital structure which can only reach its optimum point when it boosts the firm's market value.

Furthermore, Hasan, Ahsan, Rahaman and Alam (2014), suggested that an optimal capital structure is one that maximizes the value of the firm while reducing the cost of capital, thereby balancing the firm's risk and return. The challenge is that it is still impossible to ascertain a specific approach for determining the firm's optimal capital structure (Chadha and Sharma, 2015).

Chadha and Sharma (2015) defined financial leverage as “the ratio of debt and equity, which states the relationship between borrowed funds and owner’s funds in the capital structure of the firm”. According to them, firms that rely on only equity are referred to as unlevered firms while those that rely on both debt and equity are referred to as levered firms. Financial leverage is a measure of how do firms use equity and debt to finance their assets (Enekwe, Agu, & Eziedo, 2014). Rajkumar (2014) defined financial leverage as the degree to which a company uses fixed income securities such as debt and preferred equity. He added that the higher the financial leverage, the higher the interest payments lead to low earnings per share.

Tulsian (2014) described profitability as the ability of a given investment to earn a return from its use. Profitability shows the final results of the business operations (Buvaneshwaran and Bai, 2015). Profitability is a relative measurement of the operational performance of any company (Ali and Imdadul, 2014). The word profitability is made up of two word; profit and ability (Tulsian, 2014). Profit refers to the current operating performance and efficiency of business firms while ability refers to the power of business entity to earn profits, which indicates the business’ earning power or operating performance (Tulsian, 2014). According to Lakhtaria (2013), profitability is the capacity of earning profit.

Profitability is also defined as the earnings generated from revenues after subtracting all expenses incurred during a specific period (Al-Jafari and Al Samman, 2015). Moreover, profitability is considered as one of the most important goals that the management of a firm works hard to realize because without it, a firm may not continue operations. Profitability is essential to a firm because it enables the smooth running of the business in a competitive setting, influences its

performance and contributes to economic development (Sohail, Iqbal, Tariq and Mumtaz, 2013).

**Debt.** Ahmad, Abdullar and Roslan (2012) carried a study in Malaysia which sought to investigate the impact of capital structure on firm performance by analyzing the relationship between return on assets (ROA), return on equity (ROE) and short-term debt and total debt. The study established that short-term debt and long-term debt had significant relationship with financial performance using return on assets. It was also established that financial performance measured through return on equity had significant relationship with short-term debt, long-term debt and total debt.

**Trade-off Theory.** Myers (2001) explained the debt levels that balance the tax savings benefit of additional debt against the costs of possible financial distress. The trade-off theory of capital structure refers to the idea that a company chooses the amount of debt finance and how much equity finance can be used by balancing the costs and benefits. Myers (1984) posited that trade-off theory of capital structure basically entails offsetting the costs of debt against the benefits of debt. In addition, the theory discusses the various corporate finance choices that a corporation experiences; it describes that the companies or firms are generally financed by both equity and debt which is primarily dealing with the two concepts, cost of financial distress and agency costs (Welch, 2004). An important purpose of theory is to explain the fact that corporations usually are financed partly with debt and partly with equity (Kraus & Litzenberger, 1973).

**Financial Leverage and Liquidity.** Abor (2005) defined financial leverage as the amount of debt that an entity uses to buy more assets. Leverage is employed to avoid

using too much equity to fund operations. An excessive amount of financial leverage increases the risk of failure, since it becomes more difficult to repay debt. The financial leverage formula is measured as the ratio of total debt to total assets. As the proportion of debt to assets increases, so too does the amount of financial leverage.

### Financial Leverage and Financial Performance.

Penman (2007) defines profitability as the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. Profitability may be regarded as a measurable relative term in terms of profit and its relation with other elements that can directly influence the profit. It is 'the ability of a given investment to earn a return from its use' (Srivastava & Srivastava, 2006). Profit maximization is said to be the main objective of all firms. In a competitive marketplace, a business owner must learn to achieve a satisfactory level of profitability. Increasing profitability involves determining which areas of a financial strategy are working and which ones need improvement.

**Factors affecting financial performance.** Based on studies conducted by different researchers, the percentage of non-executive directors (NEDs) on the board and firm performance was found to be statistically insignificant. (Boone et al., 2007; Chen and Al-Najjar, 2012; Coles et al., 2008; Monem, 2013) Connell and Cramer (2010) also noticed a significant difference between the average board size of small and large firms listed on Irish stock markets.

### Theoretical Framework

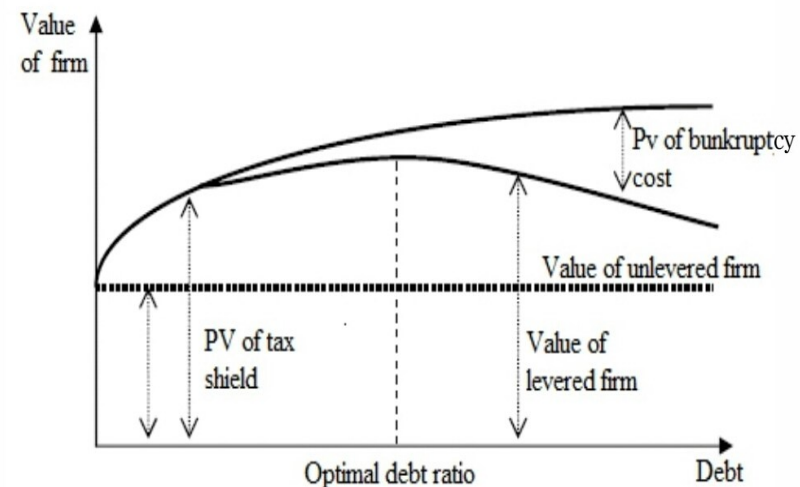


Figure 1. Trade-off Theory

Modigliani and Miller (1950) studied the capital structure and established the trade-off theory. The trade-off theory assumes that there are benefits to leverage within a capital structure up until the optimal capital structure is reached. It is also called tax-based theory because it recognizes the tax benefit from interest payments. Debt financing benefits include tax savings, reducing agency cost and the financial distress cost (Raza & Bhutto, 2013). If the company adopts more debt then, it will pay less income tax but financial risk will increase. Debt is worthwhile if a firm has reached excessive profits which may improve the return to shareholders (Ahmad, Shamsi, and Salman, 2015). According to Aswath (2006), increasing debt can increase the value of some firms and reduce the value of others. Ergo, taxes, financial distress, and agency costs create a correlation to firm value. A company is usually financed partly with debt and partly with equity. Trade-off theory states that there is

an advantage in financing with debt because the interest tax shield benefit. Thus, the value of a firm with leverage will increase when interest payments are tax-deductible.

### Conceptual Framework

Conceptual framework of the study explains the relationship between financial leverage as determined by debt ratios such as debt-to-equity ratio, short-term debt ratio, and long-term debt ratio to the financial and market performance of the companies based on the observation from the trends of the five companies since 2012 to 2017.

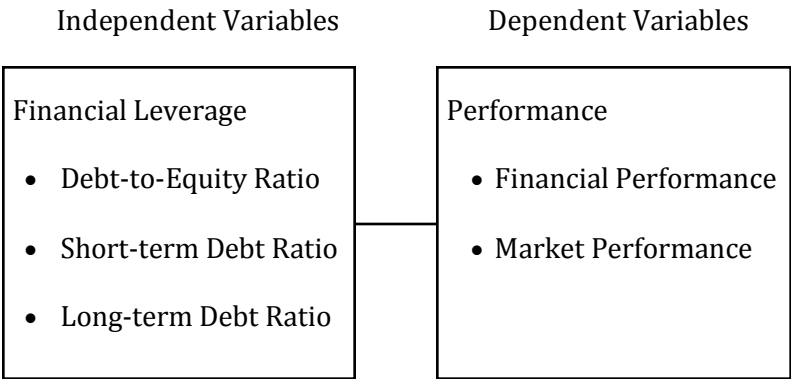


Figure 2. Paradigm of the Study

As shown in Figure 2, the independent variables are the financial leverage measures which are debt-to-equity ratio, debt ratio, short-term debt ratio, and long-term debt ratio. The dependent variables are financial performance and market performance.

### Statement of the Problem

This study examined capital structure with emphasis on the following factors: debt-to-equity ratio, long-term debt

ratio, and short-term debt ratio of hotel and leisure companies listed in PSE in order to delineate the relationship among the aforementioned factors to financial performance calculated through return on assets and market performance and price-to-book ratio. Specifically, this study sought to answer the questions:

1. How may the companies be described in terms of the following financial leverage ratios for a six-year period:
  - 1.1 debt-to-equity ratio,
  - 1.2 short-term debt ratio, and
  - 1.3 long-term debt ratio?
2. How may the companies be described in terms of the following for a six-year period:
  - 2.1 financial performance, and
  - 2.2 market performance?
3. Is there a significant relationship between the companies':
  - 3.1 debt-to-equity ratio and financial performance,
  - 3.2 short-term debt ratio and financial performance,
  - 3.3 long-term debt ratio and financial performance,
  - 3.4 debt-to-equity ratio and market performance,
  - 3.5 short-term debt ratio and market performance, and
  - 3.6 long-term debt ratio and market performance?
4. Is financial leverage a significant predictor of financial performance and market performance of the companies?

### Hypotheses of the Problem

Based on the statement of the problem, the following are the hypotheses indicated by the researchers to clarify the matter of the research study.

**H01** There is no significant relationship between the companies':

**H01.1** short-term debt ratio and financial performance,

**H01.2** long-term debt ratio and financial performance,

**H01.3** debt-to-equity ratio and financial performance,

**H01.4** short-term debt ratio and market performance,

**H01.5** long-term debt ratio and market performance, and

**H01.6** debt-to-equity ratio and market performance.

**H02** The financial leverage measures below are not a significant predictor of the companies' financial performance:

**H02.1** short-term debt ratio,

**H02.2** long-term debt ratio, and

**H02.3** debt-to-equity ratio.

**H03** The financial leverage measures below are not a significant predictor of the companies' market performance:

**H03.1** short-term debt ratio,

**H03.2** long-term debt ratio, and

**H03.2** debt-to-equity ratio.

## **Method**

This research employed a quantitative correlational research design that could systematically explain the relationship between sets of data. This study involved all listed hotel and leisure companies in the Philippine Stock Exchange (PSE).

The independent variables of the study are the financial leverage measures which are debt-to-equity ratio,

short-term debt ratio and long-term debt ratio; whereas, the dependent variables are the financial performance and market performance. Accordingly, specific related data were extracted from the audited financial statements of the select hotel and leisure companies from 2012 until 2017 to arrive at the necessary forenamed ratios.

Pearson correlation was used to determine the strength of the relationship between the variables. Linear regression was also used to determine if the value of one variable (independent) will be able to predict the value of another variable (dependent). Multiple regression analysis was used to predict the relationship between the financial leverage measures and the performance of the companies.

## **Participants and Sampling Techniques**

As with other companies in the service industry, the hotel and leisure industry is capital-intensive, which means it requires a large pool of capital coming from both internal and external sources. The subjects used in this study are the five companies included in the hotel and leisure industry listed in the PSE.

The researchers used the purposive sampling technique. The main goal of this sampling technique is to focus on particular characteristics of a population that are of interest, which will best enable the researchers to answer the research questions.

The researchers selected the hotel and leisure industry among all the other industries listed in the PSE for various reasons. The hotel and leisure industry is of huge interest due to its contribution to the Philippine economy. The World Travel and Tourism Council (WTTC) reported that the travel and tourism sector contributed a total of P3.35

trillion, accounting for about 21 percent of the country's gross domestic product (GDP). Since hotel and leisure companies are part of the tourism industry, the researchers wanted to look into the performance of the companies. The industry also supported some 2.3 million jobs or about 5.8 percent of employment in 2017. The researchers wanted to analyze the performance trend of the companies over the years. The hotel and leisure industry require a large investment capital for its buildings and equipment, which therefore require them to invest a huge amount of capital coming from both internal and external sources. This research aims to grasp an understanding of how much debts do hotel and leisure companies utilize and if these borrowings have a significant relationship with the companies' financial and market performance.

The non-financial and financial profiles of the companies were shown in the preceding tables.

Table 1. *Non-Financial Information About the Companies*

Company	Number of Affiliated Hotels	Location of Operated Hotels	Hotel Star Ratings	Number of Years of Operation to Date	Number of Years Listed in PSE
A	1	Manila	4-star hotel	67	33
B	2	Aklan and Oriental Mindoro	4-star hotel and 3-star hotel, respectively.	25	22
C	2	Aklan and Palawan	5-star hotel and 4-star hotel, respectively.	26	6
D	1	Pasay City	5-star hotel	30	27
E	4	Cebu City, Davao City, and Manila.	4-star hotels	25	24

As shown in Table 1, only Company B operates a 3-star hotel. Companies A, B, C, and E operate 4-star hotels. Companies C and D operate 5-star hotel chains. Company A is the oldest company operating for 67 years and being publicly listed for 33 years. Company C is the most recently listed among the companies, having been listed for only six years. Companies B, C, D, and E have all been operating for 25 to 30 years. Company E has the most number of hotel chains operated while Companies A and D both only operates one hotel chain.

Table 2. *Financial Information about the Companies Based on a Six-year Trend (2012 to 2017)*

Company	Average Assets (in Philippine Peso)	Average Revenues (in Philippine Peso)	Average Net Income (Loss) (in Philippine Peso)
A	2,348,237,259	302,350,582	31,644,871
B	1,890,572,714	108,422,125	(22,039,378)
C	2,184,117,419	258,171,312	39,272,842
D	1,245,031,234	292,707,169	28,100,522
E	9,085,736,317	2,048,803,866	108,169,748

As shown in Table 2, Company B was the only company that had an average operating loss. For all the other companies, they showed an average net operating income for the six-year period with Company E having the highest average assets, average revenues, and average net income. Company D had the lowest average assets and lowest net income for the companies with operating income. Company B had the lowest average revenues for the six-year period. Table 2 showed that Company E's financial information is significantly higher in values compared to the other companies.

## Instrument

This study used the financial leverage measures which served as independent variables. Financial performance and market performance were used as dependent variables. Calculations were made per company and per year using the annual audited financial statements of the hotel and leisure companies for the years 2012 to 2017, which were the secondary data. The secondary data analysis involved researchers in using the information that someone else had gathered for his or her own research purposes. Secondary data is commonly used when researchers attempt to answer a new research question, or to examine an alternative perspective on the original question of a previous study.

Secondary data were used since all the necessary financial information needed for the computations of the ratios were shown therein. Since the audited financial statements were reviewed and given reasonable assurance by independent certified public accountants (CPAs), the researchers gained confidence on the reliability of the data gathered. Also, these financial statements were submitted to the Securities and Exchange Commission (SEC), which regulates the operations of all registered corporations in the Philippines. Both independent and dependent variables were computed by the researchers by using the formulas listed in Table 3 (Weygandt et al, 2012).

Table 3. *Computation of Research Variables*

Variable	Formula
I. Independent variables	
Debt-to-equity Ratio	$\frac{\text{Total Liabilities}}{\text{Total Shareholders' Equity}}$

Table 3. *Continuation*

Variable	Formula
I. Independent variables	
Short-term Debt Ratio	$\frac{\text{Short-term Debt}}{\text{Total Assets}}$
Long-term Debt Ratio	$\frac{\text{Long-term Debt}}{\text{Total Assets}}$
II. Dependent variable	
Financial Performance	$\frac{\text{Net Income (After Tax)}}{\text{Average Total Assets}}$
Market Performance	$\frac{\text{Average Price per Share}}{\text{Book Value per Share}}$

Table 3 showed the formulas used for both independent and dependent variables. The formulas were applied to the amounts taken from the audited financial statements of the companies to convert them into ratios, which will enable the researchers to make a comparison between the companies rather than using the amounts shown in the financial statements.

Table 4. *Interpretation of Correlation Coefficient*

R Values	Verbal Interpretation
+/- 1.00	Perfect correlation
+/- 0.75 to +/- 0.99	Very strong correlation
+/- 0.50 to +/- 0.74	Strong correlation
+/- 0.25 to +/- 0.49	Moderate correlation
+/- 0.01 to +/- 0.24	Weak correlation



Table 4 shows the verbal interpretation of the correlation coefficient used for the analysis of Pearson correlation and linear regression. A positive correlation indicated a direct relationship between the variables, which meant that as the value one variable went up, the other went up as well. On the other hand, a negative correlation indicated an inverse relationship between the variables. This meant that as the value one variable went up, the value of the other variable went down and vice versa.

### **Data Gathering and Procedure**

The financial information was collected by the use of secondary data. Audited financial statements, which are included in the companies' annual reports, were taken from the PSE web site and used as bases for the computations of the aforementioned ratios. Out of all the thirty-eight (38) industries in PSE, the hotel and leisure industry was selected for reasons stated in the preceding section. The data research was done diligently to ensure that reliable information was gathered.

This research was conducted with honesty, transparency and thoroughness. Adequate level of confidentiality of the research data was ensured and the highest level of objectivity in discussion and analyses were maintained throughout the research.

All data and information used in this research were obtained from the official site of Philippine Stock Exchange. The names of the companies used as subjects in this research were not shown to maintain and to ensure anonymity of the companies. The statistical methods in this research were conducted by a professional to ensure validity and accuracy of the data.

The studies, journal and other literatures from the online sources were obtained in the official and legitimate sources. Lastly, the annual reports of the companies used in this research were obtained from the official website of the Philippine Stock Exchange.

### **Data Analysis and Statistical Treatment of Data**

To analyze the data, a series of statistical tests was applied. The secondary data collected from the audited financial statements of the hotel and leisure companies listed in PSE were analyzed using descriptive statistics and inferential statistics (correlation and regression analysis) with the help of Statistical Package for Social Sciences (SPSS).

The first method applied in this study is the data transformation. Data transformation is the process of converting data or information from one format to another, usually from the format of a source system into the required format of a new destination system. It pertains to the conversion of cardinal number from another form. In this study, the cardinal numbers of financial performance, market performance and financial leverage measures were transformed into ratio and percentage. The use of percentages is important because they simplify the data by reducing all the numbers to range between 0 and 100 and they translate data into standard form with a base of 100 for relative comparison. (Cooper and Schindler, 2003).

Descriptive statistical method was used to determine minimum, maximum, mean and standard deviation of short-term debt ratio, long-term debt ratio, debt-to-equity ratio, financial performance, and market performance. These were calculated in order to provide a broader overview of trends on hotel and leisure companies' performance and financial

leverage from 2012 to 2017 which included charts from each company.

The next method is **Pearson's correlation coefficient** test statistics that measures the association between the variables. This is the guide used in this study to determine the degree of their correlation.

**Results and Discussion**

**Financial Ratios of the Companies for a Six-Year Period (2012 to 2017)**

Table 5. *Descriptive Analysis of the Companies' Financial Leverage Measures and Performance*

Company	2012	2013	2014	2015	2016	2017	Company Average
Financial Performance							
A	0.0139	0.0043	0.0183	0.0311	0.0312	-0.0110	0.0131
B	-0.0034	-0.0006	-0.0076	-0.0208	-0.0082	-0.0264	-0.0112
C	0.1691	0.0307	0.0640	0.0296	0.0070	-0.0023	0.0497
D	0.1113	0.0609	0.0003	0.0047	-0.0118	-0.0691	0.0161
E	0.0010	-0.0070	0.0032	0.0182	0.0361	0.0215	0.0122

Table 5. Continuation

Company	2012	2013	2014	2015	2016	2017	Company Average
Market Performance							
A	0.8868	0.3423	0.3344	0.2912	0.3029	0.3979	0.4259
B	0.9718	0.9218	0.8669	0.5932	0.5549	0.5175	0.7377
C	0.8078	1.4435	0.8811	0.9790	1.6085	1.3627	1.1805
D	2.5748	2.7209	2.6417	1.2976	1.2126	0.9336	1.8969
E	0.5593	0.3856	0.2485	0.2174	0.1718	0.5031	0.3476
Short-term Debt Ratio							
A	0.2270	0.1263	0.1552	0.2090	0.0567	0.0591	0.1388
B	0.1005	0.0687	0.0962	0.1256	0.0981	0.1023	0.0986
C	0.1341	0.1795	0.1056	0.3783	0.3945	0.1534	0.2242
D	0.2266	0.2251	0.2702	0.1180	0.1210	0.1480	0.1848
E	0.2128	0.2417	0.2263	0.2859	0.2008	0.2063	0.2290

Table 5. Continuation

Company	2012	2013	2014	2015	2016	2017	Company Average
<b>Long-term Debt Ratio</b>							
A	0.2976	0.3880	0.3258	0.2101	0.1862	0.2570	0.2775
B	0.0038	0.0043	0.0050	0.0044	0.0039	0.0040	0.0042
C	0.2955	0.1445	0.2955	0.1341	0.1819	0.4913	0.2571
D	0.0378	0.0374	0.0247	0.0274	0.0266	0.0270	0.0302
E	0.3171	0.2587	0.2492	0.1450	0.1586	0.1503	0.2132
<b>Debt-to-Equity Ratio</b>							
A	1.1033	1.0588	0.9265	0.7214	0.3209	0.4622	0.7655
B	0.1165	0.0787	0.1126	0.1495	0.1137	0.1190	0.1150
C	0.7531	0.5750	0.9432	1.0510	1.3602	1.8147	1.0829
D	0.3594	0.3560	0.4182	0.1702	0.1732	0.2122	0.2815
E	0.1165	0.5750	0.9265	1.0510	1.3602	0.4622	0.5698

As shown in Table 5, Company B showed a negative financial performance among the five companies over the 6-year period. This meant that company B was not effective in terms of utilizing its assets to generate income. Negative financial performance ratio indicated that the company is suffering a net loss from 2012 to 2017. On the other hand, company C had the highest average financial performance ratio. This implied that among the five companies, company C was the most effective in utilizing its assets to generate income. The higher a company's financial performance ratio is, the better. A high financial performance means better utilization of assets to generate revenues for the company.

Company E had the lowest average market performance among the five companies. This meant that it had the lowest market value per share in relation to book value per share. Company D had the highest average market performance for the six-year period. This indicated that it had the highest market performance in relation to book value per share. Just like the financial performance, a high market performance ratio indicates better performance.

Short-term debt ratio is the measure of the relationship between the company's short-term or current liabilities and its total assets. Lower ratio is more favorable since it indicates that the company has small percentage of current liabilities in relation to its total assets. Among the five companies, company B had the lowest short-term debt ratio and company E had the highest in terms of company average. All of the five companies showed a short-term debt ratio lower than 1. This indicated that all companies had enough assets to pay its short-term liabilities during the six-year period.

Long-term debt ratio is the measure of the relation-

ship between the company's long-term or noncurrent liabilities and its total assets. Lower ratio is more favorable since it indicates that the company has small percentage of noncurrent liabilities in relation to its total assets. Company B had the lowest long-term debt ratio, which meant that company B has the lowest portion of noncurrent liabilities in relation to its total assets. On the other hand, company A has the highest long-term debt ratio. The long-term debt ratios of all the five companies were below 1. This indicated that all the five companies had enough assets to pay their long-term obligations.

Table 6. *Pearson Correlation Analysis of the Five Companies*

	R-value	p-value	Hypothesis	Accept/ Reject
Financial Performance and Short-Term Debt Ratio				
Company A	.384	.226	<b>H01.1</b>	Accept
Company B	-.682	.068	<b>H01.1</b>	Accept
Company C	-.455	.182	<b>H01.1</b>	Accept
Company D	.116	.413	<b>H01.1</b>	Accept
Company E	-.233	.329	<b>H01.1</b>	Accept
Financial Performance and Long-Term Debt Ratio				
Company A	-.400	.216	<b>H01.2</b>	Accept
Company B	.046	.465	<b>H01.2</b>	Accept
Company C	.018	.486	<b>H01.2</b>	Accept
Company D	.841	.018	<b>H01.2</b>	Reject
Company E	-.815	.024	<b>H01.2</b>	Reject
Financial Performance and Debt-to-Equity Ratio				
Company A	-.009	.493	<b>H01.3</b>	Accept
Company B	-.680	.069	<b>H01.3</b>	Accept
Company C	-.576	.116	<b>H01.3</b>	Accept

Table 6. Continuation

	R-value	p-value	Hypothesis	Accept/ Reject
Company D	.553	.127	<b>H01.3</b>	Accept
Company E	-.878	.011	<b>H01.3</b>	Reject
Market Performance and Short-Term Debt Ratio				
Company A	.520	.145	<b>H01.4</b>	Accept
Company B	-.541	.134	<b>H01.4</b>	Accept
Company C	.405	.213	<b>H01.4</b>	Accept
Company D	.035	.474	<b>H01.4</b>	Accept
Company E	-.342	.253	<b>H01.4</b>	Accept
Market Performance and Long-Term Debt Ratio				
Company A	.192	.358	<b>H01.5</b>	Accept
Company B	.225	.334	<b>H01.5</b>	Accept
Company C	-.090	.433	<b>H01.5</b>	Accept
Company D	.583	.112	<b>H01.5</b>	Accept
Company E	.503	.155	<b>H01.5</b>	Accept
Market Performance and Debt-to-Equity Ratio				
Company A	.504	.154	<b>H01.6</b>	Accept
Company B	-.534	.138	<b>H01.6</b>	Accept
Company C	.389	.223	<b>H01.6</b>	Accept
Company D	.937	.003	<b>H01.6</b>	Reject
Company E	.488	.163	<b>H01.6</b>	Accept

As shown in Table 6, the Pearson analysis for short-term debt and financial performance of the companies indicated a p-value of more than 0.05, which was the set level of significance. This showed that there was a weak evidence to reject the hypothesis; therefore, **H01.1** was accepted.

There was no significant relationship between the companies' short-term debt ratio and financial performance. This opposes the result of Ahmad, Abdullar and Roslan (2012) whose study found out that there is a significant relationship between financial performance and short-term debt ratio.

For long-term debt and financial performance, Companies A, B, and C showed a p-value of greater than 0.05. Therefore, **H01.2** was accepted. There was no significant relationship between the Companies A, B, and C's long-term debt and financial performance. For Companies D and E, p-values were 0.018 and 0.024 respectively, which were below the 0.05 level of significance. This indicated that for Companies D and E, there was a strong evidence to reject the null hypothesis. Therefore, **H01.2** was rejected for Companies D and E. For Company D, there was a very strong positive correlation between the company's long-term debt and financial performance with an R-value of 0.841. This meant a positive relationship between Company D's long-term debt and financial performance; as the long-term debt ratio went up, its financial performance also went up. For Company E, there was a very strong negative correlation between the company's long-term debt and financial performance with an R-value of -0.815. This meant an inverse relationship between Company E's long-term debt and financial performance; as the long-term debt ratio went up, its financial performance went down and vice versa. Ebaid (2009) concluded that there was no significant relationship between long-term debt and financial performance, opposing the results on Companies D and E but were in line with Company A, B, and C's results.

Companies A, B, C, and D's debt-to-equity ratio and

financial performance all showed p-values of greater than 0.05; therefore, **H01.3** was accepted. There was no significant relationship between Companies A, B, C, and D's debt-to-equity ratio and financial performance. Company E showed a p-value of 0.011, which was below the set level of significance. This indicated a strong evidence to reject **H01.3**. Company E showed a very strong negative correlation between debt-to-equity and financial performance with an R-value of -0.878. This meant that as Company E's debt-to-equity went up, its financial performance went down and vice versa. The results in connection to Company A, B, C, and D were in contrary to Kaumbuthu (2011) a negative relationship between debt equity ratio and financial performance, yet, in agreement with Company E's result.

For the companies' short-term debt ratio and market performance, all showed p-values greater than 0.05. This meant a weak evidence against the null hypothesis; therefore, **H01.4** was accepted. There was no significant relationship between the companies' short-term debt ratio and market performance. Wald (2000) observes that high market performance firms have lower levels of leverage which indicates that short-term debt which are mainly used for operations have a negative effect to market performance. Such the results were opposing each other.

The same was observed for the companies' long-term debt ratio and market performance. All companies had p-values greater than 0.05; therefore, **H01.5** was accepted. There was no significant relationship between the companies' long-term debt ratio and market performance. Nduka and Ucheahara (2016) examined the means of financing corporate organizations for efficient market performance of firms listed on the Nigerian Stock Exchange whose findings indicated that there was a significant negative

relationship between long-term debt ratio and market performance of the firm right then contradicting with the gained results.

Looking at the debt-to-equity ratio and market performance of the companies, Companies A, B, C, and E all showed p-values greater than 0.05; therefore **H01.6** was accepted for the said companies. There was no significant relationship between the debt-to-equity ratio and market performance for Companies A, B, C, and E. On the other hand, Company D had a p-value of 0.003, which was below the set level of significance; therefore, **H01.6** was rejected. There was a very strong positive correlation between Company D's debt-to-equity ratio and market performance with an R-value of 0.937. Chesang and Ayuma (2016) findings indicated that debt to equity ratio had a significant effect on market performance opposing Company A, B, C, and E's results while accepting Company D's result.

### Simple Linear Regression Analysis

Table 7. *Financial Performance and Long-term Debt Ratio of Company D*

Company	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	P-value	<b>H02.2</b>
D	.841 <sup>a</sup>	.708	.634	.038	9.680	.036 <sup>b</sup>	Reject

Based on the results shown in Table 7, **H02.2** is rejected for Company D. Using simple linear regression, it was found that the variable long-term debt ratio has a very strong correlation with a strength of 0.841, which means it significantly predicts the financial performance with  $F(3, 2) = 9.680$ ,  $p = .036$ . The adjusted  $R^2$  is the coefficient of

determination which tells us how the financial performance of Company D varied with long-term debt. The regression model summary above shows adjusted  $R^2$  of .634. This implied that long-term debt ratio explains or accounts 63.4% of variations or changes in the financial performance of Company D; the remaining 36.4% would be explained by other variables. Chadha and Sharma (2015) found that long-term debt have significant relationship with financial performance and so, agreeing with the results.

Table 8. *Financial Performance and Long-term Debt Ratio of Company E*

Company	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p-value	<b>H02.2</b>
E	.815 <sup>a</sup>	.665	.581	.010	.927	.048 <sup>b</sup>	Reject

Based on the results shown in Table 8, **H02.2** is rejected for Company E. Using simple linear regression, it was found that the variable long-term debt ratio has a very strong correlation with strength of 0.815, which meant it significantly predicted the financial performance with  $F(3, 2) = 7.927$ ,  $p = 0.048$ . The regression model summary above shows adjusted  $R^2$  of 0.581. This implies that long-term debt ratio explained or accounted for 58.1% of variations or changes in the financial performance of Company E; the remaining 41.9% would be explained by other variables. The results showed that long-term debt ratio was a predictor of financial performance of Company E. Innocent et al. (2014) found out that there is a significant relationship between debt-to-equity ratio and financial performance thus, supporting our results.

Table 9. *Financial Performance and Debt-to-Equity Ratio of Company E*

Company	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p-value	<b>H02.3</b>
E	.878 <sup>a</sup>	.770	.713	.009	13.409	.022 <sup>b</sup>	Reject

Based on the results shown in Table 9, **H02.3** is rejected for Company D. Using simple linear regression, it was found that the variable long-term debt ratio has a very strong correlation of 0.878 strength, which meant it significantly predicted the financial performance with  $F(3, 2) = 13.409$ ,  $p = 0.022$ . The regression model summary above shows adjusted  $R^2$  of 0.713. This implies that long-term debt ratio explains or accounts 71.3% of variations or changes in the financial performance of Company E; the remaining 28.7% would be explained by other variables. Therefore, debt-to-equity ratio is a predictor of Company D's financial performance. Dalbor and Upneja (2002) reported that long-term debt ratio positively relates to a firm's performance in the market, with relation to our results, they are supporting each other.

Table 10. *Market Performance and Debt-to-Equity Ratio of Company D*

Company	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p-value	<b>H03.3</b>
D	.937 <sup>a</sup>	.879	.848	.324	28.927	.006 <sup>b</sup>	Reject

Based on the results shown in Table 10, **H03.3** is rejected for Company D. Using simple linear regression, it

was found that the variable debt-to-equity ratio had a very strong positive correlation of 0.937 strength, which meant it significantly predicted the market performance with  $F(3, 2) = 28.927$ ,  $p = 0.006$ . The regression model summary above showed adjusted  $R^2$  of 0.848. This implies that debt-to-equity ratio explains or accounts 84.8% of variations or changes in the market performance of Company E; the remaining 15.2% would be explained by other variables. Therefore, debt-to-equity ratio was a significant predictor of Company D's market performance. Adekunle and Sunday (2010) study proves that there is a relationship between debt-to-equity ratio and market performance supporting our findings to Company D with that manner.

### Multiple Regression Analysis

The next method applied was multiple regression analysis. Multiple regression was used to see if the financial leverage measures namely short-term debt ratio, long-term debt ratio and debt-to-equity ratio were significant predictors of financial and market performance of the companies when combined together.

Table 11. *Multiple Regression Analysis for Financial Performance of the Hotel and Leisure Companies*

Company	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p-value	<b>H02</b>
A	.679 <sup>a</sup>	.461	-.349	.022	.569	.687 <sup>b</sup>	Accept
B	.685 <sup>a</sup>	.469	-.327	.012	.589	.679 <sup>b</sup>	Accept
C	.963 <sup>a</sup>	.928	.819	.027	8.552	.106 <sup>b</sup>	Accept
D	.886 <sup>a</sup>	.785	.463	.046	2.434	.304 <sup>b</sup>	Accept
E	.905 <sup>a</sup>	.818	.546	.011	3.002	.260 <sup>b</sup>	Accept

Based on the results shown in Table 11, using multiple linear regression, it was found that the variables taken altogether do not significantly predict the financial performance of the companies. The p-values for the five companies were all above the set level of significance which was 0.05. This indicated a weak evidence to null the hypothesis. Therefore, **H02.1**, **H02.2**, and **H02.3** were accepted. The financial leverage measures namely short-term debt ratio, long-term debt ratio, and debt-to-equity ratio when combined together are not predictors of the companies' financial performance. Alkhatib (2012) results indicated a lack of a significant relationship between financial performance and financial leverage which is the same with our findings.

Table 12. *Multiple Regression Analysis for Market Performance of the Hotel and Leisure Companies*

Company	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p-value	<b>H03</b>
A	.765 <sup>a</sup>	.585	-.037	.233	.940	.552 <sup>b</sup>	Accept
B	.590 <sup>a</sup>	.349	-.628	.260	.357	.794 <sup>b</sup>	Accept
C	.702 <sup>a</sup>	.493	-.266	.375	.650	.653 <sup>b</sup>	Accept
D	.975 <sup>a</sup>	.951	.878	.290	12.959	.072 <sup>b</sup>	Accept
E	.723 <sup>a</sup>	.523	-.192	.175	.731	.622 <sup>b</sup>	Accept

Based on the results shown in Table 12, using multiple linear regression, it was found that the variables taken altogether do not significantly predict the market performance of the companies. The p-values for the five companies were all above the set level of significance which was 0.05. This indicated a weak evidence to null the hypothesis. Therefore, **H03.1**, **H03.2**, and **H03.3** were

accepted. The financial leverage measures namely short-term debt ratio, long-term debt ratio, and debt-to-equity ratio when combined together are not predictors of the companies' market performance. Duca (2012) findings were opposing ours for he found out a significant relationship between market performance and financial leverage.

## Conclusion

Some firms believed that financial leverage had some positive effect on the profitability of the firms but the secondary data has revealed in another way round. The secondary data analysis revealed that though there were effects, it was statistically insignificant. Financial leverage is measured through short-term debt ratio, long-term debt ratio and debt to equity ratio. Using these ratios and examining its relationship to the financial and market performance, the results suggest that all the financial ratios computed for the Hotel and Leisure companies listed in PSE for the years 2012-2017 significantly predicts the financial leverage collectively. However, when analyzed separately, financial performance and market performance of the firms reliably influence financial leverage.

In line with this, under Pearson correlation analysis, it was found that among the companies under this study, short-term debt ratio has no significant relationship with the financial performance of the hotel and leisure companies listed in PSE whereas long-term debt ratio has no significant relationship with the financial performance of Companies A, B, and C. However, it showed a strong positive relationship to the financial performance of Company D while a strong negative relationship to the financial performance of Company E. Also, the debt-to-equity ratio has no significant relationship with the financial performance of Companies A,



B, C, and D. Nonetheless, it showed a strong negative relationship to the financial performance of Company E. Therefore, the more a firm relies on debt financing, the lower its profits become. This could be associated with the fact that instead of using the profits for reinvestments in the firm, the profits must be used instead in meeting the liabilities of the creditors.

The short-term debt ratio and long-term debt ratio, according to Pearson correlation analysis, have no significant relationship to the market performance of Companies A, B, C, D, and E. Debt-to-equity ratio has no significant relationship to the market performance of Companies A, B, C, and E while it has a very strong positive relationship to the market performance of Company D. The following results can provide awareness to Hotel and Leisure companies and potential investors of what specific financial ratios can affect their financial performance and market performance.

Furthermore, this study also concluded that using simple linear regression method, it was found that the long-term debt ratio of Company D and Company E had a very strong positive relation to their financial performance. Also, there is no significant relationship between debt-to-equity ratio and financial performance of Company E. Based on the results of Pearson correlation, short-term debt ratio and long-term debt ratio have no significant relationship to the market performance of Companies A, B, C, D, and E. Debt-to-equity ratio has no significant relationship to the market performance of Companies A, B, C, and E while it has a very strong positive relationship to the market performance of Company D.

Based on the results of multiple linear regression, the financial leverage measures namely short-term debt ratio,

long-term debt ratio and debt-to-equity ratio taken as a whole do not significantly predict the financial performance of the hotel and leisure companies listed in PSE.

## **Recommendations**

### *For Companies:*

The management of the companies having low financial performance should adopt the policy of maximizing assets efficiency by making use of all the assets at the full capacity to optimize revenue. Full capacity utilization would enable them to enjoy the benefit of fixed cost and reduce the cost of services which in turn, will help them to attain profitability at a higher level.

Marketing employees of some companies need to be strengthened. Developing appropriate marketing strategy and market research will improve sale and hence profit.

### *For Future Researchers:*

The study suggests that another model should be tried to check whether it will give different results or not that was why this model did not capture all the major variables that have been hypothesized to influence financial leverage of hotel and leisure corporations.

This study also suggests that future study should investigate generalization of the findings beyond the Hotel and Leisure Corporations. There is a need for further study in this area of describing the variables effecting financial leverage because there might be some more variable effecting the financial leverage of the business.

Lastly, the data gathered in this study in the financial

leverage and performance were already available from annual reports in Philippine Stock Exchange. Future research may try to use other data collection techniques in the form of survey to have personal interaction and exposure to the economic field.

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