



# The impact of the financial structure of tourism companies on the market value added: An empirical study

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## Abstract

The study sought to examine the impact of financial structure on the market value added of Iraqi tourism companies. The study adopted a quantitative approach by analyzing the financial data of a sample of Iraqi tourism companies for the period from 2004 to 2018. To measure the financial structure, three variables were used: Leverage Ratio, Equity to Total Assets Ratio and Short - Term Financing to Total Equity Ratio. The paper found that tourism companies differ in their reliance on debt in relation to property rights. It also found that there is a limited dependence of most of the study sample companies on fixed-cost loans in finance, in particular long-term loans. In addition, any improvement in the market value of the entity in relation to it carrying value will lead to an increase in the market value added. This study provides a better understanding of the relationship between financial structure in tourism companies and their market value added for researchers, practitioners and managers in the sector. Moreover, the results of this study are a working guide for financial managers in tourism companies and for the general investors in the tourism sector in determining the structure of financing or when making decisions to borrow or invest, because such decisions will directly affect the market value added of the company and the price of its shares in the financial markets. This study is one of the first studies that discuss the relationship of financial structure to market value added in the tourism sector in Iraq and is thus the starting point in exploring the determinants of financial structure in this important sector.

**Keywords:** Revenue structure, tourism industry, market value added, tourism companies, financial leverage.

## Introduction

Tourism is one of the most significant economic activities of the globe and is regarded to be a stand-alone sector with its inputs and outputs in many countries. This industry encompasses a variety of operations, whether economic, social, political or cultural, and therefore the absence of funding allocations for tourism investment is one of the challenges and limitations facing sustainable tourism growth (Job, Becken & Lane, 2017). This is exacerbated by the weak position of banks in promoting the tourism industry and offering loan services to tourism investors in many developing countries, with the exception of developed ones. The issue of access to financial resources for its activities is therefore one of the greatest issues facing companies in general and tourism companies in specific, which has led to the collapse of many of them in this industry as a consequence of this issue (Koster & Main, 2019). These companies are seeking funding from multiple accessible main and secondary



sources and from inner and external sources. The financing issue is one of the most serious issues facing tourism companies in Iraq, because they lack the fundamental abilities in financial management or absence of funding. The financing methods vary depending on the nature of the company and its activities. Many researchers have addressed the problems of financing tourism activities in general or by focusing on some determinants of the financing structure such as (Allen, Bartiloro, Gu & Kowalewski, 2018; Jovanovic & Jovanovic, 2016; Liao et al., 2018; Santos, Correia, Veloso & Silva, 2019; Sodeyfi, 2016; Yeh, 2019). Due, on the one side, to the absence of facilities and, on the other, to the need for funds to begin up and operate, it was essential to look for new ways of enabling company owners to face the funding issue, which is a obstacle to them. Therefore, this paper aims to explore the importance of financing for tourism companies, including addressing the most important sources upon which tourism companies rely for funding. It also attempts to explain the role of the Market Value Added Index to measure the performance of tourism companies through their funding sources. This topic is one of the areas that have attracted the interest of many researchers, where the literature of the previous study showed great interest in how to finance the activities of companies since the study of M&M in 1958, which found the impact of the financial structure on the value of the company.

## **Literature Review**

### **Financial Structure in Tourism companies**

The problem of financing is one of the most important problems facing companies in general, because they lack the basic skills in financial management or lack of funding, and the forms of financing vary depending on the stage the company is going through, so one of the biggest problems the problems faced by institutions in general is a problem finance resource. To this end, these organizations are making attempts to acquire funding from the multiple inner and external sources available. The subject of financial structure is one of the topics that has attracted the interest of many researchers, where the authors of studies have shown great interest in how to finance the activities of companies since the study of M&M in 1958, which found that the financial structure affects the value of the company, while performance appraisal is the tool used to determine the effectiveness of economic activity. In order to measure the results achieved and compare them with the scheme in order to identify deviations, diagnose the causes and take what is necessary to overcome them, and the financial structure affects the performance of companies, increasing the leverage to some extent may improve profitability while increasing the burden of the company, appropriate funding balances Maximizing profit and sustainability.

Ambrosie (2015) investigates the determinants of the financial structure of small and medium-sized enterprises in the hospitality industry and indicate that profitability, asset presence, set size, complete liquidity and risk are important variables influencing the capital structure of small and medium-sized enterprises in the hospitality industry, while growth, other tax advantages and age are not deemed adequate. Wu (2018) study the interaction between the structure of debt funding and the stability of revenue. The research observed that the general debt ratio of listed tourism businesses in China is small and that the debt funding feature is not well used; stable results of listed companies in the field of tourism assets and picturesque locations. Fu, Chen, Huang, Li, and Köseoglu (2019) investigate connections between entrepreneurial expressionism, agility and current project development in the Chinese entertainment and tourism sector. They show that the combined and balanced dimensions of ingenuity play a role between entrepreneurial expressionism and the quality of fresh adventure development. The financial structure is a combination of the sources from which an entity has collected funds to finance its investments and therefore includes all the elements that make up the liabilities side, whether long or short-term (Madhovi & Dhiwayo, 2017). The companies seek to form a variety of financing elements included in commitments, short-term and



long-term financing elements, such as internal or external sources of finance, all of which aim to finance investments for corporate profitability through their investments (Mjongwana & Kamala, 2018). The companies should first analyze a set of surrounding factors and then develop a target financing structure, in which the different sources of financing (owned and borrowed) are determined and the proportion of each source in that structure.

It should be taken into account that the target structure may change depending on the circumstances. However, the administration must set a targeted financing structure for it, because the existence of this target structure would clarify the vision for the financial decision-maker. For example, if the actual loan rate is below the target level, it is easy to expand the borrowing side, whereas if the debt rate is higher than the required rate, equity issuance and equity financing are used. As is well known, there is an inverse relationship between the degree of risk and profit. Using a greater debt ratio would increase the risk to shareholders. In general, the return on ownership increases as risk increases, but this could lead to a decline in share prices (Brigham & Houston, 2012). The tourism sector in Iraq is one of the vital sectors that play a leading role in the development process and represents one of the most important economic resource in many countries, with its financial flows and job creation. Therefore, we seek to establish a financial structure that balances risk and return to maximize share price. It also balances external financing and equity, which maximizes the market value of the company, in a way that creates a mix of liabilities and equity in the company's balance sheet, which is ultimately relied upon to fund the asset side of the budget.

### **Market value added (MVA) and optimal financial structure**

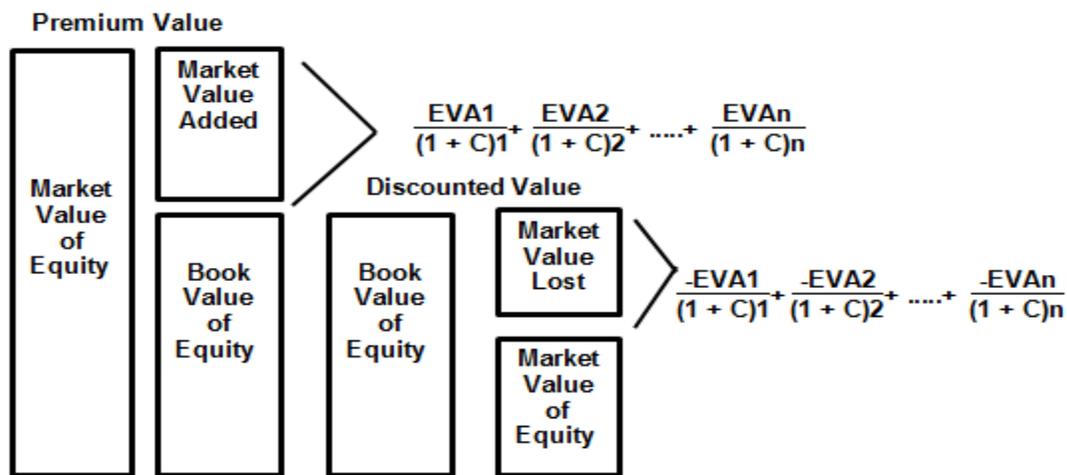
In fact, MVA can be illustrated in different ways and with different definitions. Market Value Added (MVA) is an (external) valuation of the market value of shares created by management (or destroyed) for shareholders (Hall & Brummer, 1999). The market value added is also defined as the difference between the total market value of a company and economic capital. The economic capital or invested capital (IC) represents the amount that has been placed in the company which consists primarily of fixed assets plus net working capital, or the amount of wealth created in the capital. This amount reflects the market assessment of the effectiveness of the management of the enterprise in the use and control of available financial resources and the competitive position of the market. In this context, The market value added (MVA) represents the value that the market adds to the book value of the invested capital (Houston & Brigham, 2009). Kramer and Peters (2001) defined it as a cumulative measure of the value created by management beyond the capital invested by shareholders. Nakhaei (2016) indicate that there is one measure, Market Value Added (MVA), which embodies all the dynamics of corporate performance.

In general, value added in the market is the difference between what the shareholders invest in the project and what they get. Based on the above, MVA is described as the real key to building value for shareholders and evidence of management success in improving performance. The main objective of most companies is to increase shareholder wealth, which obviously benefits shareholders but also helps ensure that scarce resources are allocated efficiently, benefiting the economy. The shareholders' wealth is maximized by increasing the difference between the market value of the company's assets and the amount of capital provided by the shareholders. This difference is called Market Value Added (MVA) (Brigham & Houston, 2015). In addition, wealth creation is a measure of operational efficiency in company companies based on their capacity and efficiency in connecting variables that are attributable to the achievement and effectiveness of the company. (Presutti Jr, 2003).

The essence of the concept of MVA is the difference between the market value of the company's shares and the book value of the company, where MVA refers to the extent of the company's

performance from the beginning of the establishment of companies based on the values of Stocks, and the overall scale of performance. Hall and Brummer (1999) they emphasize the correlation between the economic value-added scale and the market value-added scale, as an increase in economic value added means an increase in the market value added, and vice versa. The economic value added is a measure of financial performance associated with the value added of an organization, but it is not the best measure of performance as advocates for economic value added. In this context, Stern, Stewart III, and Chew (1995) indicate that the economic value added has an additional explanatory power of market value. they added that EVA is a model and methodology for evaluating internal performance and relies on the management of the company in the selection and identification of policy strategies that lead to value to shareholders, while the criterion of value added in the market provides an assessment of external performance.

Accordingly, market value added is an essential measure that summarizes the management performance of the company and shows how successful it is in distributing and managing investments for its own and rare resources to maximize the wealth of owners. In fact, performance indicators measured by market value added are closely correlated with those associated with economic value added, so the best way to increase MVA is to maximize EVA, reflecting the company's net profit with surplus fees charged to shareholders' capital. The market value added measure is the best external measure of the company's performance from the investor's point of view, but it is a measure of wealth and not a measure of performance as in economic value added. The following figure shows the relationship between market value added and expected economic added values in the future.



**Figure 1.** The relationship between the economic value-added scale and the market value-added scale  
 Source: Sichigea and Vasilescu (2015)

The optimal financing structure is the financing structure that increases the profitability of the owners and hence the structure that increases the market value of the business. Moreover, the use of more loans increases the risk to shareholders. However, the use of more loans is often accompanied by high expectations of the rate of return on equity, which at the same time is reflected in the increase in share prices (Brigham & Ehrhardt, 2002). In general, the previous studies unanimously agreed that there is no single ideal financing structure, but there are various ideal financing structures that vary according to the nature of the company according to the risks of operations and asset structure. The basis of the optimal capital structure theory is based on the idea that investors want to increase the company's selling value at present and not necessarily increase the market value of shares in the future. In this context, Welch (2009) argues that determining the optimal funding structure is very



difficult because it requires analyzing several factors related to return and risk. Balancing risk and profitability are sometimes a more difficult decision when the economic, social, technological and political environment is highly unstable. Therefore, the choice between the optimal ratio of debt and equity can affect the company's value as well as its financial performance. There are different theories on the financial structure point to different conclusions about the optimal financial structure, and no one can prove that one theory is better than the other. Therefore, we cannot estimate the optimal financial structure with great (Brigham & Houston, 2012).

Based on the above of the relationship the financial structure and the firm market value added, the hypotheses of the study can be formulated as follows:

The main hypothesis is:

- *There is a significant effect of the financing structure indicators (x1, x2, x3) on the financial performance index (MVA) of the Iraqi Tourism companies*

This hypothesis was divided into the following sub-hypotheses:

- *The first sub-hypothesis: There is a significant effect of the leverage index (x1) on the financial performance index (MVA).*
- *The second sub-hypothesis: There is a significant effect of the equity ratio index on the total assets (x2) in the financial performance index (MVA).*
- *The third sub-hypothesis: There is a significant effect of the ratio of current liabilities ratio on the right of ownership (x3) on the financial performance index (MVA).*

## Materials and Methods

This study adopts a quantitative approach to examine the above hypotheses using the financial data of 5 tourism Iraqi companies. The financial reports were the main data source for analysis in the analytical part of the study, specifically the income statements, and balance sheets period (2004-2018).

## Independent variables

1. Leverage ratio: - It is one of the most commonly used indicators to measure the degree of use of external financing sources in the financing structure. A high leverage ratio indicates that the company relies more on debt to finance its business compared to equity and vice versa.

$$\text{Leverage ratio} = (\text{total debt} / \text{total assets or liabilities and equity}) \times 100\% \quad (1)$$

Table 1 indicates the results of leverage ratio of the sample companies during the period between 2004-2018.

**Table 1.** Leverage ratio 2004-2018

#	Year	Palestine Hotel	Ishtar Hotel	Al-Mansour Hotel	Kerbela Hotel	National Tourism Co.	Mean %
1	2004	28.2	21.8	33.5	12	10.9	21.28



2	2005	39.7	29.4	38.9	20.8	7.8	27.32
3	2006	47.8	58.8	14.5	11.8	8.7	28.32
4	2007	58.9	58	21.7	5.7	7.8	30.42
5	2008	49	70.4	30.9	8.7	23.4	36.48
6	2009	59.3	83.7	33.9	4.4	15.8	39.42
7	2010	62.5	109.6	32.3	6.4	5.5	43.26
8	2011	70.2	97.3	30.8	2.7	10.1	42.22
9	2012	69.5	74.8	45.8	2.9	9.1	40.42
10	2013	54.8	51.7	53.8	1.4	6.4	33.62
11	2014	40.8	42.9	63.1	1.8	4.3	30.58
12	2015	46.5	74.2	63.8	1.3	5.9	38.34
13	2016	49.6	71.3	66.2	0.6	6.6	38.86
14	2017	49.3	71.5	42.7	0.6	4.4	33.7
15	2018	51.6	78.8	58.8	0.8	2.8	38.56
<b>Mean</b>		51.8	51.8	66.4	42.1	5.4	8.7
<b>Min</b>		28.2	28.2	21.8	14.5	0.6	2.8
<b>Max</b>		70.2	70.2	109.6	66.2	20.8	23.4

Table (1) shows that the tourist companies of the study sample achieved a relatively acceptable leverage ratio, where the average leverage ratio of the sample companies was about (35%). This confirms the reliance of these companies primarily on equity in financing their assets and operating activities. The results of the vertical analysis of hotels sample study showed that the highest leverage ratio achieved by Ishtar Hotel with an average leverage ratio of 66.3%. This result confirms that the hotel depends in financing its activities on debt more than the equity, which exposes it to take a high risk. The Palestine Hotel Company depends in financing its activities on a balanced percentage of both debt and equity with an average leverage of about 52%. The remarkable thing is that Karbala and National Tourism Co Hotels do not give much importance in their financing structure to debt financing, which was on average 5.3.8.6%, respectively. This policy has positively reflected on the profitability of the company as it does not bear the burden of debt financing service, in addition to the fact that it did not take into account the cost of financing from the capital owned when preparing the income statement. The results of the horizontal analysis indicate an upward trend based on debt financing. The average leverage ratio was 21% in 2004, up to 2010 when it reached 43%. This ratio decreases in the next three years after which the ratio returns to rise which means that there is instability of the leverage ratio during 2004-2018.

2. Ratio of Equity to Total Liabilities: This ratio shows the extent of the company's dependence on equity in its financing structure and the extent of the risks to which it will be exposed. The high ratio indicates that the company has a good financial position with a reduction in the risk associated with external debt and vice versa.

$$\text{Equity to Total Assets Ratio} = (\text{Equity} / \text{Total Liabilities \& Equity}) \times 100\% \quad (2)$$

From Table (2), we find that the general rate calculated for all tourism companies during all years, which was adopted as a standard rate to compare the results. The rate of the sector in the study



was (65.2%). A case of not being exposed to risk, and analyzed vertically among touristic companies' sample of the study and compared to the average of tour companies sample study.

**Table 2.** Equity on total assets ratio 2004-2018

#	Year	Palestine Hotel	Ishtar Hotel	Al-Mansour Hotel	Kerbela Hotel	National Tourism Co.	Mean %
1	2004	71.8	78.4	66.8	89.4	79.06	89.4
2	2005	60.5	70.9	61.3	92.2	72.86	92.2
3	2006	52.2	41.2	85.7	91.5	71.8	91.5
4	2007	41.3	41.1	78.3	92.2	69.5	92.2
5	2008	52.1	29.8	69.2	76.8	63.9	76.8
6	2009	40.9	16.5	66.3	84.2	60.74	84.2
7	2010	37.7	-9.6	67.9	94.7	56.9	94.7
8	2011	29.9	2.9	69.2	90.1	57.92	90.1
9	2012	30.7	25.2	54.2	91.1	59.72	91.1
10	2013	45.2	48.5	46.4	93.8	66.54	93.8
11	2014	59.4	57.3	37.1	95.9	69.6	95.9
12	2015	53.7	25.8	36.4	94.3	61.82	94.3
13	2016	50.6	28.9	33.9	93.6	61.32	93.6
14	2017	50.9	28.7	57.5	95.8	66.5	95.8
15	2018	48.6	21.2	41.4	97.2	61.52	97.2
<b>Mean</b>		48.4	33.8	58.1	.948	91.5	65.32
<b>Min</b>		29.9	- 9.4	33.9	79.4	76.8	55
<b>Max</b>		71.8	78.5	85.7	99.6	97.2	86.56

The horizontal analysis indicates a downward trend based on the funding available, when comparing the 15 years of study in terms of the annual average achieved for each year of study. When we take the rate of tourism companies sample study for each individual year we find that the year 2004 the most achieved year rate (79%) and 2010 is the lowest year achieved rate (56.8%). This means that 2004 was the most year in which tourism companies relied on property rights in their financing structure, while 2010 was the least year in which property rights were relied on in the financing structure.

3. Ratio of short-term financing to equity: This ratio shows the extent to which the company relies on short-term financing in its financing structure and its exposure to financing risks.

$$\text{Short-term / equity ratio} = (\text{short-term liabilities} / \text{equity}) \times 100\% \quad (3)$$

Table (14) shows that the study sample companies achieved an average (102.8%), in addition to that Palestine Hotel Company and Ishtar Hotel Company relied on short-term debt at a very high rate. The remaining companies relied mainly on equity, unlike other companies that relied on short-term financing, leading to higher capital costs.



**Table 3.** Short term liability on equity ratio 2004-2018

#	Year	Palestine Hotel	Ishtar Hotel	Al-Mansour Hotel	Kerbela Hotel	National Tourism Co.	Mean %
1	2004	39.1	27.8	50.1	12.5	12	28.3
2	2005	65.8	41.4	63.4	26.1	8.6	41.06
3	2006	92.2	143.3	16.9	13.4	9.4	55.04
4	2007	142.6	143.8	27.9	6	8.7	65.8
5	2008	92.4	236.6	44.7	9.5	29.6	82.56
6	2009	145.1	508.9	51.2	4.6	18.6	145.68
7	2010	165.9	-523.5	47.6	6.8	5.4	-59.56
8	2011	235.1	2319.1	44.8	2.8	11.1	522.58
9	2012	226.5	298	72.2	2.9	10	121.92
10	2013	121.8	106.8	94.8	1.4	6.8	66.32
11	2014	68.8	75	148.7	2	4.5	59.8
12	2015	86.6	286.4	155.4	1.3	5.4	107.02
13	2016	98.3	247.5	176.8	0.6	6.4	105.92
14	2017	96.8	249.7	63.3	0.6	4.1	82.9
15	2018	83.7	373.3	132.7	1	2.6	118.66
<b>Mean</b>		117.3	117.4	302.3	79.4	6.1	9.5
<b>Min</b>		39	39.1	-523.5	16.9	0.6	2.6
<b>Max</b>		235	235.1	2319.1	176.8	26.1	29.6

When comparing the results of the study years in terms of the annual rate achieved for each year using the rate of tourism companies, the study sample for each individual year, it is clear that the rate in 2010 was the lowest (59.7%), while the ratio reached (52.5%) in 2011, which is the above. The reason for the decrease is due to changes in the funding structure of the Ishtar Hotel Company during the years.

### The dependent variable

The market value added is the dependent variable in this study. The Market Value Added Index (MVA) will be adopted as a variable that reflects the financial performance of tourism companies. It is a modern variable to measure financial performance. It can be calculated as follows:

- Method 1: It is calculated according to Brigham and Ehrhardt (2002) by the difference between the market value and the book value of the property rights.

$$\text{Market Value Added} = \text{Market Value of Equity} - \text{Book Value of Equity} \quad (4)$$

If the result is positive, the company creates value for shareholders, while negative value indicates a decline in the value of the company.



- Method 2- MVA is calculated by its relationship with economic value added (EVA) and by increasing (EVA) the company will increase (MVA) (Akgun, Samiloglu, & Oztop, 2018).

$$\text{Market Value Added} = \text{Present Value of all Future EVA} \quad (5)$$

The market value added of the facility is one of the modern standards and tools that are used to express the added value of the enterprise and to evaluate the financial performance. The book value is represented by nominal and paid up capital, reserves, retained earnings and deficit, if any, for each year of study. Table (24) shows the market value added of tourism companies.

**Table 4.** Market value added 2004-2018

#	Year	Palestine Hotel	Ishtar Hotel	Al-Mansour Hotel	Kerbela Hotel	National Tourism Co.	Mean in Millions of Iraqi dinars
1	2004	85039	63264	11354	6372	36646	40535
2	2005	175283	64341	37313	2766	49906	65922
3	2006	41737	20272	32951	2591	25747	24660
4	2007	33653	25436	77431	7215	11250	30997
5	2008	45024	25524	37974	2941	17742	25841
6	2009	117817	38060	42886	18535	78162	59092
7	2010	84983	54535	108327	7527	52323	61539
8	2011	75965	51175	96204	5727	56153	57045
9	2012	76101	38903	99978	2000	62154	55827
10	2013	73566	51309	79989	871	63628	53873
11	2014	65937	53085	71226	2232	93274	57151
12	2015	34307	20893	42608	2231	15383	23084
13	2016	63011	34847	59748	2264	42464	40467
14	2017	52377	30701	32005	-322	27156	28383
15	2018	44598	27095	31946	-682	29149	26421
<b>Mean</b>		71293	39963	57463	4151	44076	43389
<b>Min</b>		33653	20272	11354	-682	11250	23084
<b>Max</b>		175283	64341	108327	18535	93274	65922

It is clear that the highest average MVA was (71,293) million, which is for the Palestine Hotel Company, which indicates the high closing price in the years (2004, 2005). this is an indication of the strength of the activity of the hotel and the volume of its operations, while subsequent years the nominal and paid up capital has increased from 900 million dinars in 2004 to reach 4470 million dinars in 2018, which means an increase in the number of shares. when compared with the overall average market value of (43,389) million shows that the Palestine Hotel has exceeded the general average, and the other company What was the average MVA higher than the average is the Mansour Hotels Company has averaged (57,463). The National Tourism Investment Company also exceeded the general average was the average MVA (44,076) million dinars, while other tourism companies of the sample had an



average MVA has less than the general average. we find the company Ishtar Hotel with an average of (39,963) million dinars. Karbala hotels with an average of (4,152) million dinars in the last rank. The results indicate that the company of Karbala hotels moved away from the general rate due to the diminished volume of business, due to the lack of activity of the company during the period. This has led to a decrease in demand on its shares in the financial market with intensive decline in its share price. When comparing the years vertically in the study, we find seven years in which the average MVA was higher than the general average of 2005, 2009, 2010, 2011, 2012, 2013, 2014, where the highest average MVA in 2005 for Palestine Hotel Company was (175283) millions. The remaining years in the study were less than the general average and the lowest year was 2015 with an average of (23,084) million dinars, while the lowest MVA was in 2015 achieved by Karbala Hotels Company which amounted to (2,231) million dinars and Karbala Hotels Company continued to concede In MVA in 2017 and 2018, respectively (322-, 682-) million dinars. From these results, we can say that MVA has been closely linked to the company's business activity and level of profitability, which drives investors to increase the demand for its shares or not, and this is what is the disparity in MVA tourism companies' sample during the study years.

### Results of the Normal distribution Test

In order to determine the type of statistical distribution of data, the skewness and kurtosis test was used to test the normal distribution. Table 5 shows the results of this test for study variables. The results are shown in table 5 below:

**Table 5 .**Results of normal distribution test of the variables

No.	Variable	Valid	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
<b>Tourism Industry</b>						
1	X1	75	0.449	0.277	-0.770	0.548
2	X2	75	-0.449	0.277	-0.771	0.548
3	X3	75	1.655	0.277	1.155	0.548
4	Y1	75	1.073	0.277	1.216	0.548

The results above show that all Skewness values recorded values ranging between ( $\mp$ .91.96) and all sectors, as well as the values of Kurtosis ranged between ( $\mp$ 1.96) and for all sectors and so that the study data has a normal distribution.

### Results

The paper assumes that there is a significant effect of leverage and equity on total assets and short-term liabilities on equity on the market value added of tourism companies. Any change in leverage and equity on total assets and short-term liabilities on equity will result in a positive change in market value added. The ratio of the impact of each independent index on the market value added will be determined by the coefficient of determination, which shows the variance obtained by independent indicators in the dependent variable.

The effect will be determined by the Beta coefficient, which shows the tendency of the relationship between independent indicators and the dependent variable as shown in Table (6). The market value added (y) is the function of leverage (x1) and equity on total assets (x2) and the ratio of short-term liabilities to equity (x3), as follows:



$$y = a + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 \quad (6)$$

$$y = 71257.365 + (0.43)x_1 + (0.35)x_2 + (0.17-)x_3 \quad (7)$$

**Table 6.** Correlation coefficients between independent indices in the market value added.

Independent variables	Market value added					
	R	R <sup>2</sup>	Beta	t	f	Sig.
Leverage ratio	0.33	0.11	0.434	6.913	7.109	0.000
Equity to total assets ratio			0.350	2.875		0.005
Short-term debts on equity ratio			-0.170	-0.587		0.559

The results in Table 6 show that there is a significant correlation between the financial structure indicators and the market value added (0.33). Moreover, the indicators of financial structure leverage (x1) and equity on total assets (x2) and the ratio of short-term liabilities to equity (x3) account for 0.11 percent of the change in market value added. The calculated value (f) was (7.109) and is greater than its tabular value (4.25). The leverage ratio has a tendency to influence the leverage ratio in the market value added (0.43) which is significant because the calculated value of T is greater than its tabular value of 1.96 as well as the level of significance which is 0.000 which is considered acceptable level of hypothesis. Based on these results we can say that there is a relationship of leverage ratio on the market value added.

The ratio of equity on the total assets has a tendency to have an effect on the market value added (0.35) which is significant because the calculated value of T is greater than its tabular value of 1.96 as well as the level of significance which is 0.005 which is considered acceptable. Based on these results we can say that there is a relationship of ratio of equity on the total assets on the market value added. The tendency of the effect of ratio of the short-term liabilities on equity to the added market value was (-0.17) which is not significant because the calculated value of T is smaller than its tabular value of 1.96 and the level of significance was (0.559) which is not within the acceptable level. Based on these results we can say that there is not a relationship the short-term liabilities on equity ratio on the market value added.

After the first major hypothesis tested by multiple regression analysis, the sub-hypotheses will be tested individually using simple regression analysis. In the three variables, any change in the three ratios leads to a positive change in the market value added. The extent of the relationship between the study indicators at the level of the tourism sector will be determined by finding the correlation coefficient. The percentage of each independent index in the market value added will be determined by the coefficient of determination that illustrates a variation which is explained by the independent market indicators on the market value added. The amount of the effect will be determined by the Beta coefficient, which shows the tendency of the relationship between the independent indices and the dependent variable as the market value added as in Table (7):

**Table 7.** Correlation coefficients between independent variables in MVA

Independent variables	Market value added					
	R	R <sup>2</sup>	Beta	t	f	Sig.
Leverage ratio	0.32	0.10	0.32	2.893	8.38	0.005



<b>Equity to total assets ratio</b>	0.31	0.10	0.31	2.751	8.36	0.005
<b>Short-term debts on equity ratio</b>	0.07	0.01	0.07	0.590	0.348	0.557
equations						
$y = a + \beta_1x_1$			$y = 30138 + (0.32)x_1$			
$y = a + \beta_2x_2$			$y = 68239 + (0.31)x_2$			
$y = a + \beta_3x_3$			$y = 42614 + (0.07)x_3$			

The results in Table 7 show that there is a significant correlation between the leverage ratio and the added market value (0.32) which is significant according to the calculated level of significance (0.005) which is considered within the acceptable level. We found that there is a correlation between the leverage ratio and the added market value has reached (0.32) which is significant according to the calculated moral level is (0.005) which is lower than the level of moral assumed by the researcher (0.05). The leverage ratio is explained by the variance in the dependent variable with the market value added as the coefficient of determination is 0.10, which is acceptable because the calculated F is greater than its tabular value of 4.25. The tendency of the relationship to the leverage ratio in the market value added was (0.32) which is significant because the calculated value of T is greater than its tabular value of 1.96 as well as the level of significance which is 0.005 is less than the acceptable level of significance. Based on these results, we can say that there is a significant relationship between the leverage ratio and the market value added at the tourism sector level.

Moreover, there is a correlation between the rate of equity on the total assets and the added market value of (0.31), which is significant according to the calculated moral level (0.000) which is within the acceptable level of significance (0.05). The ratio of equity to total assets explains the variance in the market value added. The determination coefficient was 0.10 which is acceptable because the calculated F is greater than its tabular value of 4.25. The tendency of the ratio of equity to total assets with the market value added was (0.31), which is significant because the calculated value of T is greater than its tabular value of 1.96 as well as the level of significance which is 0.005 which is within the acceptable level of (0.05).

Based on these results, we can say that there is a significant relationship between the ratio of equity to total assets and the market value added at the tourism sector level. The results also show that there is a relationship between the rate of short-term liabilities on equity and the added market value of (0.07), which is not significant according to the calculated level of significance (0.557) which is greater than the acceptable level of significance (0.05). The ratio of short-term liabilities on equity account for the change in market value added as the coefficient of determination is 0.01 and is unacceptable because the calculated F is smaller than its tabular value of 4.25. The tendency of the relation to the ratio of short-term liabilities on the property right in the market value added was (0.07), which is not significant because the calculated value of T is smaller than its tabular value of 1.96, as well as the level of significance which is (0.557) which is greater than the acceptable level of significance (0.05). Based on these results, we can say that there is not a significant relationship between rate of short-term liabilities on equity and the market value added at the tourism sector level.

## Conclusions and discussion

In this paper, the main objective was to explore the relationship between the financial structure of Iraqi tourism companies and the added market value. To achieve this goal, the financial data of a sample of Iraqi tourism companies for the period from 2004 to 2018 were used. Three variables were used to represent the capital structure, which is the rate of leverage, the rate of equity on total assets, and the



rate of short-term liabilities on equity as independent variables. The results of the study showed that tourism companies differ in their dependence on debt compared to property rights. This limited reliance of most of the companies surveyed on fixed-cost loans in financing, especially long-term loans. Accordingly, any improvement in the market value of the entity relative to the book value will result in an increase in the market value added. The results of the practical analysis of the tourism sector showed that there is a significant correlation between the financial structure indicators and the added market value of the company, which reached 33% on the total sample level.

These results imply that the Iraqi companies use debt and do not use equity financing unless necessary, to avoid the low share price on the one hand and on the other hand the introduction of information sent to the stock markets. Iraqi companies should also determine the percentage of leverage that will maximize the value of the company. In addition, some tourism companies must stop issuing new shares because their share prices are lower than their book value. The companies should also seek long-term sources of funding, with the assistance of the competent authorities and specialists and support to allow the opportunity for Iraqi companies to take a leading role in the Iraqi economy.

In this context, it is necessary to emphasize the importance of financial and information disclosure in terms of attention to financial statements in preparation, auditing and directing. It is proposed that a special committee be established from the Board of Financial Supervision and the Iraqi Stock Exchange, and the joint stock companies listed in the market concerned with auditing the financial statements and the speed of issuance. On the other hand, the companies listed in the Iraq Stock Exchange should submit the annual financial statements and final accounts once the financial year ends and make them available to the parties that can benefit them, especially investors and researchers in the fields of finance, banking sciences, etc. Developing the fields of work and activity in this vital sector. Finally, companies should diversify their sources of funds and avoid the traditional behavior of relying on one source only.

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