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FACTORS AFFECTING DEBT TO EQUITY MIXTURE IN KUWAIT, BAHRAIN AND OMAN

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ABSTRACT

The key objective of present study analysis is to investigate the impact of various indicators on the value of debt to equity mixture (leverage) of the selected firms in the region of Bahrain, Kuwait and Oman during the time of 2011 to 2016. The key method being implemented in the present study is based on the robust multiple regression equations. The time of the study is from 2011 to 2016 with the factors like current assets, operating fixed assets, the net book value of fixed assets, admin expenses, earnings before interest and tax, return on assets, gross profit and finally the age of the firm. Findings of the study indicate that in the overall sample of the study key factors like of operating fixed assets along with net book value of the fixed assets has their significant contribution to predicting the value of financial leverage in the business. As per the originality/value of the study, it is found that in the selected region, this is a very first attempt to check the impact of selected indicators on the value of leverage over time. However, the limitation of the study includes the limited sample size which can be covered in the coming time for the better generalization of the results and suitable decisions. Besides, the study is contributing to existing literature while providing in-depth analysis of selected firms in three regions.

1. INTRODUCTION

To predict the factors affecting the capital structure in the business is under core consideration since the time of the 1950s (Harris and Raviv, 1991). The study of the combination of both external and internal factors which can define the financial resources of the business firms and its liability and equity side have generated various results (García Padrón *et al.*, 2005). The contribution in existing literature by Miller and Modigliani (MM) has been among the major contribution in the theory of capital structure since the time of 1958 (Stiglitz, 1969; Myers, 1984; Miller, 1988). Their study has provided the idea that under the situation of given investment policy of the business firm, while not paying any type of taxes to the Government and transaction cost, the choice of a capital mix of the business cannot disturb the market value of the firm. Meanwhile, the reason is that real markets are not near to any type of situation of the perfect capital market on which the theory of MM is based. Various studies have presented their findings regarding the association between the financial decisions, investment decision and value of the firms over time. in addition, various certain factors like taxes which can favour of usage of debt by the business. In addition, various factors like the use of taxes in the business are linked with the debt policy and factors like the cost

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of bankruptcy can limit the advantage of tax shield in the business (Miller, 1977; Barclay *et al.*, 1995; Graham, 2000; Barclay *et al.*, 2017; Kanatani and Yaghoubi, 2017).

In addition, the theories like agency and signal offer meaningful help in getting the main idea of debt usage by the company. The reason is that debt usage in the business firm can significantly reduce the managerial decision and lowers the conflicts between the management of the business and those who are contributing and providing the funds to the business. Besides, better combination of debt and equity in the business can lower various another cost in the business but the increased risk in the form of more interest payments by the business firm can increase the risk and finally the more return on equity.

The idea of leverage is explained as the result of the events which can explain the business firm and various sources regarding how to run the company. In their study, Modigliani and Miller (1969) and Stiglitz (1969) have explained the idea of capital structure in a way that it becomes among the significant contribution. In the later time, it is also stated that capital structure of the business depends on the argument that cost of capital will remain at the constant point with the changes in the value of leverage over time. Those Companies which possess a significant level of leverage and capital structure in their balance sheet over a specific time can decrease their flow of free cash flows. In addition, it is also expressed that Companies with the usage of an additional amount of leverage in their business activities will face more amount of risk in their business as well. However, Company's capital structure that includes a large portion of debt and equity amount tends significantly with the higher cost of bankruptcy because of higher interest payments for the business as well. In addition, the idea of Free cash flow denotes the amount of cash that a firm is accomplished of generating after putting aside all the amount which is required to fulfil the reserve needs of the business. Free cash flow also permits a company to track investment prospects due to the reason that it can predict the wealth of the shareholders over time. The idea of Capital structure decisions relies on two major theoretical backgrounds which is under the title of trade-off theory and the pecking order theory as well. for the tradeoff theory graph below can significantly help to understand the idea of the capital structure along with firm value, bankruptcy cost, and debt to equity ratio in a specific time.
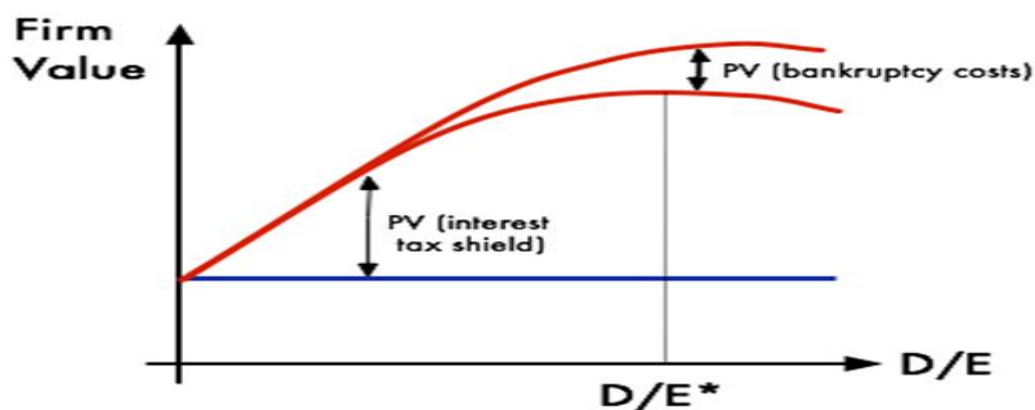

Figure-1. Trade-off theory of capital structure

Source: Slide Share (2018)

Meanwhile, the idea of pecking order theory is very well explained based on the concepts of internal financing, external financing debt and external financing equity over a specific time in the marketplace. Figure 2 explains the hierarchy of these financing links with the increased risk and cost of financing. The idea under packing order theory explains that if the company has no other option for the financing of its assets through retained earnings, then the managers of the business will surely prefer the debt portion over equity because of its time based significant in the overall process.
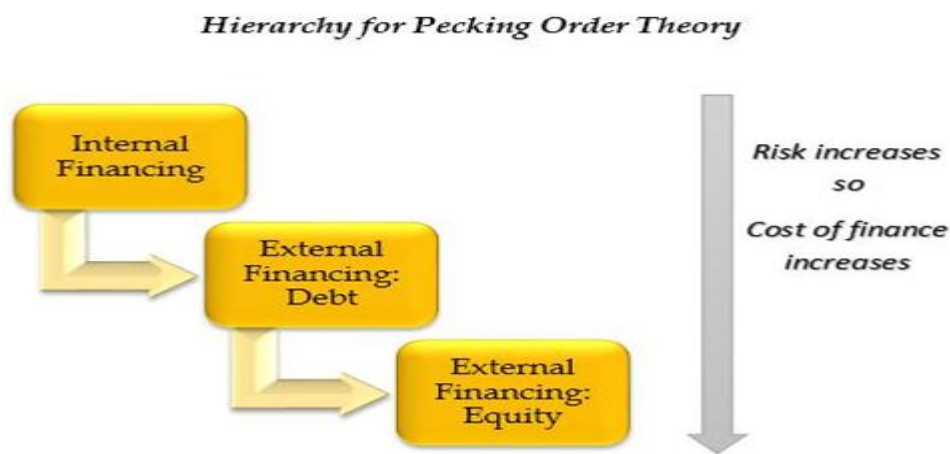
Hierarchy for Pecking Order Theory

Figure-2. Hierarchy of Packing Order Theory

Source: CFA (2016)

The idea of pecking order theory can also be viewed in the context that management provides the preference for internal financing have a lower value of the leverage. In this sense, the association between the leverage and resource of the business firm can be viewed in a reverse sense as explained by Requejo (1996); Menendez-Requejo (2005).

2. LITERATURE FROM THE EXISTING STUDIES

In his studies, Ross (1977) explains the fact that financial structure of the business corporation can provide the business market with the key information regarding the organization, its market value and increasing level of the debt. It is expressed that the increase in the value of debt by the managers of the business is since they think the increasing value of debt is helpful for them to get the stated objectives, while it clear that risk of insolvency is not associated. Some other authors like (Brealey *et al.*, 1977; Myers, 1984; Harris and Raviv, 1990; Zeitun and Tian, 2007) have explained that value of the business and its size is positively associated to each other and cannot be ignored. In addition, the variation in the value of debt of the company can affect its market value, as the change in the value of the capital structure of the business can affect its future expectation. For instance, if the business firm will announce the idea that there is a reduction in the value of the total number of commons stock for the business over time, then it has a significant and positive impact on the market (Cornett and Travlos, 1989; Copeland and Lee, 1991; Chirinko and Singha, 2000; Frank and Goyal, 2003).

Meanwhile, the idea of capital structure is also discussed in various other studies with the key focus on the idea of how the leverage is affected by the various factors in the market and by the balance sheet items. These studies are related to USA along with countries like Spain and the UK. The significant empirical findings of these studies explain that the capital structure of the selected firms has a mixed finding. Besides the significant factors, the size of the business can be the significant determinants (Crutchley and Hansen, 1989; Gaver and Gaver, 1993). It is expressed that firm with the larger size will affect the debt mixture over time. In addition, the value of tangible assets can also be considered the real factors which are affecting the leverage of the firms. Therefore, it is found that overall studies which are provided with their contribution can be divided into two major groups; the positive impact on the debt or leverage and negative impact on the value of leverage.

Besides, some of the firms are those whose repute is affecting the value of the leverage and its capability as its ability is to lower the conflict between the managers and the money lenders. Those assets among the total assets will be very much under consideration having their significant influence over the value of leverage as well. some studies have provided a similar discussion (Menendez-Requejo, 2005; Feito-Ruiz and Menéndez-Requejo, 2010). The study of having concluded the idea that when the business firms pay the obligation on time, a good repute can be enjoyed by the business and its managers as well, hence lowering the conflict between the company and the

credits. The repute factor of the firm can be measured through the factor of age of the firm over a specific time as measured by Crabbe and Post (1994) and Alonso et al. (2005). The value of age can be explained as the positive linkage with the debt value of the firm over time. The authors like Myers (1977) provided their opinion that companies have good repute in the market reflects their honesty towards the market hence positive impression from the creditors and similar other parties.

Meanwhile, those firms with the more opportunities for the growth have a lower value of the leverage. The reason behind this factor is that the growth factor is negatively affecting the leverage of the firm over time. Myers (1977) have explained the fact that for a better outcome in the form of leverage business has to work for more growth opportunities. Some other findings related to growth and leverage factor has been provided in the studies of Alonso et al. (2005); Menendez-Requejo (2005); Robb and Robinson (2014); Albul et al. (2015); Oztekin (2015) and Serfling (2016). The value of the cost of debt is another which can affect the leverage of the business firms. The idea behind this factor is that the actual amount of interest must be considered while going for any type of leverage decision for the business firm over a specific time. However, the factor of interest cost is negatively associated with the value of debt as explained by Heider and Ljungqvist (2015); Dangl and Zechner (2016) and Admati et al. (2018).

3. VARIABLES AND HYPOTHESES OF THE STUDY

Leverage: in the present study, leverage is considered as the main dependent variable and in existing literature, various research works have taken this as an outcome factor (Ahsan et al., 2016). To explain the concept of leverage, present literature has covered the three major proxies which are under the title of short-term leverage, considered through short-term liabilities and their overall value in the balance sheet. The value of this type of leverage is considered through the ratio of short-term obligations divided by total assets of the firm. In addition, the factor of long-term leverage is calculated through long-term liabilities divided by the total assets of the business. While the total leverage in the business is calculated through total liabilities over total assets in a time (Long and Malitz, 1985; DeYoung and Roland, 2001).

Profitability: for the capital structure, the factor of profitably is assumed to be among the controversial measures of capital structure in the business over time. As per the hypothesis under the title of pecking order theory, it is expressed that financial manager always prefers the internal source of financing over those which are in the form of an external source (Myers and Majluf, 1984). Therefore, the idea of POT indicates the fact that there exists a negative association between the profitability measure and level of leverage in the business over time. Meanwhile, the assumption of POT indicates that those firms with the higher level of income will go for the debt financing to get the maximum shield through from the taxes. However, as per the findings in the existing literature, there exists a negative association between the leverage profitability of the firm (Bayrakdaroğlu and Yalçın, 2013) and in the findings of Alkhatib (2012); Chatterjee et al. (2012) and Qureshi et al. (2012).

Liquidity: the factor of liquidity is also considered in existing literature to predict the value of leverage. As per the pecking order theory, firm with the higher level of liquidity will go for the internal financing as a key source of fund, so finally suggest the fact that there exists a significant negative association between the liquidity and leverage of the firms over a period. Ozkan (2001) has also explained the similar findings and stated that the assumption under the title of pecking order theory for the liquidity and leverage is significantly negative. However, as per the packing theory, those firms with the higher level of liquidity is more capable to cover the contractual obligation and vice versa.

3.1. Fixed Asset of the Business

The impact of fixed or tangible assets on the value of leverage is also addressed in the present literature. It is expressed that there exists a significant and positive association between the fixed assets of the business and leverage over time (Jensen and Meckling, 1976). However, another argument is that those firms, who have put their

fixed assets as collateral to secure the loan amount, will face a low amount of debt cost and hence low agency cost in the business. Williamson (1988) has also explained the fact that tangibility of the assets can increase the liquidation of the business and higher liquidation increase the debt level in the business. Therefore, the association between the fixed assets of the business and leverage has a positive association. Such kind of association is expressed in numerous studies like (Titman and Wessels, 1988).

Size of the business Firm: As per the findings under the pecking order theory, those firms with the large in their size tends to have higher leverage comparatively to those who have lower in their size. Various studies have found a significant and positive association between the size of the business and level of leverage. Notable contribution can be viewed from the empirical findings of Bayrakdaroğlu and Yalçın (2013); Cassano *et al.* (2013); Jõeveer (2013); Baltacı and Ayaydın (2014); Kamran *et al.* (2014) and Kamran *et al.* (2016).

The repute of the business: the factor of the reputation of the business in the marketplace is also among the significant variables which can define the current and future position in the form of leverage. Those firms with good repute have more opportunities to get the funds in the market as compare to the new or fresh firms. The factor of age is known as a significant proxy to explain the idea of firm's repute in a lifetime. Age of the firm can be measured through the overall time since the starting of the business to the present. The idea of packing order once again defend the argument that older firms have more experience in the market, hence good creditworthiness and finally known as less risky and leveraged (Postman, 1987; Bates, 1990; Chalip and Leyns, 2002; Chen and Strange, 2005).

Besides some other indicators like admin expenses are also added in the model to check their impact on the value of leverage over time. The table below explains the hypothetical association between the variables of the study.

Table-1. Hypotheses of the study

Hypotheses No.	Hypotheses
1	A significant association between the level of liquidity and leverage of the selected firms is predicted
2	A significant association between the level of operating fixed assets and leverage of the selected firms is predicted
3	A significant association between the level of the net book value of fixed assets and the leverage of the selected firms is predicted
4	A significant association between the level of general and admin expenses and leverage of the selected firms is predicted
5	A significant association between the level of profitability indicators and leverage of the selected firms is predicted
6	A significant association between the business reputation (age) and leverage of the selected firms is predicted

4. METHOD OF ESTIMATION/ ECONOMETRIC MODELS

The present study has conducted the empirical analysis for analyzing the key determinants of debt to equity mixture in three regions. To achieve the stated objective of the study, multiple robust regression analysis has been conducted while putting STATA-14 under consideration. The method of robust regression analysis based on the various equations have been applied because of its wide acceptance and significance in the determination of regression coefficients. The method of robust regression is known as an alternative way to the approach of least square regression when the data is contaminated with influential observations or contaminated with the presentence of outliers. Meanwhile, it is also used for the detection of influential observations in the data set, which can overcome the problems and provide the best regression estimates. In addition, the benefit of using the robust regression as an estimation method of coefficient provides favorable findings without violating the basic assumptions. Meanwhile, robust regression estimation is designed for not affected by the violations of assumption at the time of data generation process. To implement this method, a combination of various explanatory and

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outcome variable has been generated, which are explained below. At first, the equation for the overall sample has been developed which are as under:

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \Delta_6 AGE_6 + \Delta_7 ROA_7 + \Delta_8 GP_8 + \mu i, t \quad (1)$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \mu i, t \quad (2)$$

$$y(Leverage)f = Cons - Cof + \Delta 1 CA1 + \Delta 2 OFA + \Delta 3 NBFA3 + \Delta 4 GADE4 + \mu i, t \quad (3)$$

$$y(Leverage)f = Cons - Cof + \Delta 1 CA1 + \Delta 2 OFA + \Delta 3 NBFA3 + \Delta 4 EBIT4 + \Delta 5 AGE5 + \mu i, t \quad (4)$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \Delta_6 ROA_6 + \Delta_7 GP_7 + \mu i, t \quad (5)$$

Equation 1-5 considers the overall sample of the study while taking the leverage and main dependent variable. Equation 1 has taken all explanatory variables, while equation 2 has deliberately omitted age, ROA, GP, while equation 3rd has considered CA, OFA, NBFA, and AGE. Equation 4 has observed the effect of CA, OFA, NBFA, EBIT along with age, while equation 5 has not considered the effect of GADE. After the consideration of overall sample, the following regression equations will be empirically examined for the subsamples under the title of Bahrain, Kuwait and Oman. Details are as under:

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_2 NBFA_2 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \Delta_6 AGE_6 + \Delta_7 ROA_7 + \Delta_8 GP_8 + \mu i, t \quad (6) \text{ Bahrain}$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \nabla_2 OFA + \nabla_3 NBFA_3 + \nabla_4 GADE_4 + \nabla_5 EBIT_5 + \mu i, t \quad (7) \text{ Bahrain}$$

$$y(Leverage)f = Cons - Cof + \Delta 1 CA1 + \Delta 2 OFA + \Delta 3 NBFA3 + \Delta 4 AGE4 + \mu i, t \quad (8) \text{ Bahrain}$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \mu, t \quad (9) \text{ Bahrain}$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 FA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \Delta_6 ROA_6 + \Delta_7 GP_7 + \mu i, t \quad (10) \text{ Bahrain}$$

$$y(Leverage)f = Cons - Cof + \Delta_1 AC_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \Delta_6 AGE_6 + \Delta_7 ROA_7 + \Delta_8 GP_8 + \mu i, t \quad (11) \text{ Kuwait}$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \mu i, t \quad (12) \text{ Kuwait}$$

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 AGE_4 + \mu i, t \quad (13) \text{ Kuwait}$$

$$y(leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \mu i, t \text{------------equation}$$
:14 Kuwait

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \Delta_6 ROA_6 + \Delta_7 GP_7 + \mu i, t$$
------------equation : 15 Kuwait

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \Delta_6 AGE_6 + \Delta_7 ROA_7 + \Delta_8 GP_8 + \mu i, t$$
-----------------equation :16 Oman

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 GADE_4 + \Delta_5 EBIT_5 + \mu i, t$$
----
equation : 17 Oman

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 AGE_4 + \mu i, t$$
--------equation : 18 Oman

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \mu i, t$$
---------equation
: 19 Oman

$$y(Leverage)f = Cons - Cof + \Delta_1 CA_1 + \Delta_2 OFA + \Delta_3 NBFA_3 + \Delta_4 EBIT_4 + \Delta_5 AGE_5 + \Delta_6 ROA_6 + \Delta_7 GP_7$$
------------------------equation : 20 Oman

For the 2nd sub-samples of Kuwait firms, the following equations will be examined

for the third sub-sample of Omani business firms following equations are under consideration.

For the overall sample of the study, the first equation has considered the factors like current assets, along with operating fixed assets, net book value of fixed assets, general and admin exp, earnings before interest and tax, age of the firms, return on assets, and gross profit has been considered to predict the value of leverage in the overall sample. For the 2nd equation, factors like age, return on assets, and gross profit has been eliminated from the regression model to explain the significance of the overall regression equation. For the third equation, factors like general and admin exp, earnings before interest and tax, along with returning on assets are not under consideration. For the fourth equation, the factors like current assets, operating fixed assets, the net book value of fixed assets, earnings before interest and tax, and age of the firm are added in the model. while for the fifth regression equation, the factors like current assets, operating fixed assets, the net book value of fixed assets, earnings before interest and tax, the age of the firm, return on assets, and finally, the gross profit has been added in the model.

5. RESULTS AND DISCUSSION

Table 3 explains the output for the various regression models, developed under a full sample of the study. To explains the key indicators of financial leverage through balance sheet items, equation 1 to 5 has been developed. For the first regression equation, the factors like currents, assets, operating fixed assets, the net book value of the fixed assets, general admin expenses of the business, along with profitability measures like earnings before interest and tax, return on assets, and finally the age of the firm as core explanatory variables. In the very first equation, the effect of CA, OFA, NBFA, GADE, EBIT has been examined. The effect of CA on lev. is found to be insignificant with the coefficient of -.0366 and standard error .0226. The impact of OFA is found to be significant and positive with the coefficient of .498 with the standard error of -.127. It indicates that increasing value of operating fixed assets causes an increase in the value of financial leverage, suggesting the management of the firms to focus on increasing the value of OFA. The effect of NBFA is .562 indicates that whenever the value of NBFA increases the value of lev. is increased over time. The value of the standard error is .118 which indicates a deviation in the value

of the coefficient. Meanwhile, the impact of EBIT on lev. for the overall sample is found to be .538 with the error of .134. The overall findings for the whole sample indicate that the effect of fixed operating assets, NBFA, and EBIT is significant and supporting the stated hypotheses. For the 2nd equation, the effect of OFA and NBFA is found to be positive without the presence of EBIT, age, ROA. It indicates that without the consideration of profit indicators and age of the firm, the firm should consider the effect of OFA, NBFA with the increasing value of financial leverage in the business firms of Kuwait, Bahrain and Oman.

For the third, the effect of CA, OFA, NBFA along with age is examined for the leverage of the selected firms. It is found that the effect of OFA is .705, indicates an increasing impact on the value of leverage. The effect of NBFA is .389 with the standard error of .389. In addition, under the title of the fourth regression equation, once again the effect of OFA along with NBFA, EBIT is significantly positive on the leverage of the business over time. However, the effect of ROA is found to be significant and negative of -12.3 which indicates that with the presence of CA, FOA, NBFA, EBIT, the effect of ROA is found to be significantly impacting on the value of leverage.

Table-2. Robust regression outcomes for the overall sample

Overall sample of the study					
	(1)	(2)	(3)	(4)	(5)
VARIABLES	Lev	lev	Lev	lev	Lev
CA	-0.0366	-0.0187	-0.0116	-0.0140	-0.0183
	(0.0226)	(0.0274)	(0.0231)	(0.0216)	(0.0191)
OFA	0.498***	0.671***	0.705***	0.466***	0.447***
	(0.127)	(0.168)	(0.172)	(0.0977)	(0.125)
NBFA	0.562***	0.411**	0.389**	0.570***	0.579***
	(0.118)	(0.171)	(0.180)	(0.101)	(0.111)
GADE	0.507	0.323			
	(0.729)	(0.859)			
EBIT	0.538***			11.25***	10.77***
	(0.134)			(1.825)	(2.049)
AGE			5,433**		1,469
			(2,388)		(1,372)
ROA				-12.3***	-17.7***
				(29.58)	(30.04)
GP					0.280
					(0.761)
Constant	-47***	-31***	-66***	-90**	-81**
Observations	179	179	179	179	179
R-squared	0.891	0..812	0..782	0..832	0..713

Source: Author's Findings

Under the title of the 5th regression equation, the effect of OFA, NBFA, EBIT is found to be significantly positive except the effect of ROA which is found to be -17.7, significant at 01% level of significance. The explained variation for the first regression model is 89.1 indicating a good prediction in leverage by selected variables. For the 2nd regression equation, the value of robust R-Square is 81.2 and for the third model is 78.2. The effect of all the explanatory variables under equation 4th and 5th is found to be 83.0 and 71.3 indicating a good prediction by the selected variables for the overall sample of the study.

After the overall sample of the study, three subsamples for Kuwait, Bahrain and Oman has been created. The first subsample is presenting the output for the firms of Bahrain from 2011 to 2016 with the annual number of observations of 60, indicating 10 entities for the time duration of the last six years. For the subsample, the effect of the first regression equation indicates that leverage is positively and significantly affected by CA over time. Meanwhile, the effect of OFA is .0384 showing a positive but insignificant impact on leverage. The effect of NBFA is .906 indicates that increasing value of NBFA causing a positive and significant impact on the value of leverage from 2011 to 2016. The impact of GADE on leverage indicates that increasing admins exp. is positively affecting

on the leverage of selected firms. In addition, the effect EBIT is .188 indicates a significant and positive impact on leverage in the region of Bahrain. The rest of the indicators are not under consideration in the 6th regression equation. For the 7th robust equation, the effect of CA, OFA, NBFA, GADE has been examined for the leverage. However, only the effect of CFA and NBFA is found to be significant and positive on leverage for the subsample of Bahrain. The third model for the firms of Bahrain indicates that OFA is significantly and negatively affecting the leverage. Meanwhile, the effect of age is also found to be negative but insignificant under the same subsample. But the effect of NBFA is positively and significantly affecting the leverage through the effect of 1.234 and standard error of .119. For the 8th regression equation, all the predictors are considered for lev. except for GADE, age, and GP as well. The effect of CA, OFA and NBFA along EBIT is found to be positive and significant. However, under the same regression equation, the effect of ROA is -15.24, indicates that increasing ROA is negatively affecting the leverage of the business over time. for the fifth model, the effect of CA, OFA, NBFA along with age of the firm and GP is found to be positive and significant.

Table-3. Regression Results for Sub-sample 1: Bahrain

Bahrain 10 Firms					
	(1)	(2)	(3)	(4)	(5)
VARIABLES	Lev	Lev	Lev	lev	lev
CA	0.0372***	0.0315	0.0267	0.0396***	0.0430***
	(0.00873)	(0.0301)	(0.0205)	(0.00802)	(0.00922)
OFA	0.0384	-0.187**	-0.200**	0.0684***	0.109***
	(0.0294)	(0.0851)	(0.0903)	(0.0246)	(0.0285)
NBFA	0.906***	1.219***	1.234***	0.884***	0.817***
	(0.0453)	(0.109)	(0.119)	(0.0375)	(0.0461)
GADE	0.118**	-0.0633			
	(0.0486)	(0.266)			
EBIT	0.188***			1.105***	0.414
	(0.0264)			(0.328)	(0.329)
AGE			-1.925		1.300***
			(5.9)		(9.1)
ROA				-15.24***	-5.301
				(5.225)	(5.575)
GP					0.114***
					(0.0399)
Constant	12**	26**	33	87	-32***
Observations	60	60	60	60	60
R-squared	0.75	0.69	0.82	0.91	.88

Source: Author's Findings

However, the effect of ROA is negative but insignificant. the explained value of all the predictors for the under equation 6th is .75, for the equation 7th is .69, for equation 8th is .82, for equation 9th is .91 and finally for the 10th equation found to be .88 respectively.

The 2nd subsample is created for the selected firms in the region of Kuwait. The explained variation for all the models under this sample is significantly found to be very much acceptable and have explained a good level of predictions in leverage of the firms. for the 11th regression equation, the effect of NBFA and EBIT is found to be positive and significant with the coefficients of 1.683 and .590 with the standard deviation of .443 and .323 respectively.

For the 2nd sum sample the effect of various explanatory variables, on the leverage of the selected firms have been examined from 2011 to 2016. The first model considers the same indicator for leverage as the one selected in the whole sample and first subsample of Bahrain. It is found that the effect of NBFA is again positive and significant with the coefficient of 1.68 and a standard error of .443 which indicates a deviation from the predicted value of NBFA for leverage. This positive impact implies that the increasing value of NBFA is causing an upward change in the value of leverage. In addition, the effect of EBIT is also significant and positive of .590 at 1 % level of significance defending the alternative hypotheses that increasing value of EBIT can positively influence on the lev.

of selected firms in the region of Kuwait. The 2nd model under the sample of Kuwaiti firms consider all the indicators except the EBIT, age, ROA and GP, which indicates that the effect of NBFA is found to be positively significant only in this regression model. The robust value of R-Square for equation 11 and 12 is found to be .63 and .72 respectively. The third model for the sample of Kuwait indicates that again the NBFA is positively affecting the lev. with the coefficient of 1.755 significant at 1 % level of significance. For the 4th model, the effect of NBFA is again significantly and positively found for the leverage along with the EBIT of 11.69. However, the effect of ROA is -10.2 which is significant at 1 % level of significance with the overall explained variation of .68 respectively. For the last equation under the sample of Kuwaiti firms, it is narrated that EBIT seems to be positively and significantly affecting the value of the lev, while the effect of ROA is again found to be significantly negative with the coefficient of 10.71 and -19.2 with the standard error of 3.28 as well. The value of R-square in the 5th equation of this sample is .69 indicates that all the explanatory variables seem to create a good variation in Lev. from 2011 to 2016.

For the third subsample, various business firms working in Oman from 2011 to 2016 has been selected. It is found that the effect of CA, OFA and NBFA along with GADE and EBIT is significant with the coefficient of -.160, .126, .946, 1.053 and .245 respectively with the significance level of 1 % except for the 5 % for the GADE. The overall explained variation as predicted through these set of indicators is .92 which indicates a high level of variation through these variables. Meanwhile, for the 2nd equation under the region of Oman, it is expressed that OFA is positively and significantly affecting the value of leverage during the first half of the present decade. The effect of NBFA is again found to be significant and positive for the leverage. The effect of selected factors of lev. for the third model again found to be significantly and positively associated with the NBFA. However, when the age of the firm is added, it is found that the age factor has a negative effect of -4.141. For the fourth model, the effect of CA is -.113 significant at 1% with the coefficient of .0241 indicating a negative impact of CA on lev. the effect of OFA is significantly positive along with the NBFA which is .905. The effect of EBIT is positive and significant at 1% respectively. The effect of ROA is negative and significant for the lev. under the same model of the study. The last model for the subsample of the study indicates a fact that the effect of GP is 1.01, CA is -.156, for OFA, is .119, for NBFA is .947 respectively. The rest of the indicators have explained an insignificant impact on the value of lev. during the subsample of Omani firms.

Table-4. Regression Results for Sub-sample 2: Kuwait

Subsample of Kuwait					
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
VARIABLES	lev	Lev	lev	lev	lev
CA	-0.0292	-0.0193	-0.0183	-0.0106	-0.0229
	(0.0255)	(0.0302)	(0.0317)	(0.0263)	(0.0231)
OFA	-0.369	-0.334	-0.277	0.357	0.198
	(0.512)	(0.468)	(0.269)	(0.234)	(0.538)
NBFA	1.683***	1.806***	1.755***	0.723**	0.818
	(0.443)	(0.479)	(0.367)	(0.337)	(0.557)
GADE	1.431	0.336			
	(3.116)	(2.829)			
EBIT	0.590**			11.69***	10.71**
	(0.232)			(4.061)	(5.192)
AGE			5.935		12.880
			(12.945)		(13.481)
ROA				-10.2***	-19.2***
				(8.51)	(3.28)
GP					1.579
					(2.737)
Constant	-4.061***	-39***	-6**	-9.021	-3.012
Observations	59	59	59	59	59
R-squared	0.63	0.72	0.88	0.68	0.69

Robust standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table-5. Regression Results for Sub-sample 3: Oman

Sub Sample: Oman					
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
VARIABLES	lev	Lev	lev	lev	lev
CA	-0.160***	-0.0905**	-0.0290	-0.113***	-0.156***
	(0.0245)	(0.0415)	(0.0228)	(0.0241)	(0.0247)
OFA	0.126**	0.235***	0.278***	0.184**	0.119**
	(0.0562)	(0.0747)	(0.0701)	(0.0756)	(0.0521)
NBFA	0.946***	0.785***	0.748***	0.905***	0.947***
	(0.0630)	(0.0795)	(0.0786)	(0.0818)	(0.0655)
GADE	1.053**	1.186*			
	(0.493)	(0.641)			
EBIT	0.245***			3.316***	-1.205
	(0.0470)			(0.724)	(2.085)
AGE			-4,141*		-2,194
			(2,449)		(2,596)
ROA				-50.21***	5.329
				(11.95)	(26.94)
GP					1.101*
					(0.608)
Constant	-32.877	-59.259*	10.484	-18.366	44.314
Observations	60	60	60	60	60
R-squared	0.92	0.82	0.88	0.92	0.91

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

As per the stated findings, the hypotheses under the title of liquidity and its impact on the leverage has been accepted during the sub samples. While the effect of operating fixed assets as a proxy of size and profitability indicators have been accepted in the whole sample of the study.

6. CONCLUSION AND FUTURE IMPLICATION OF THE STUDY

The idea of leverage is under significant attention in the field of finance and corporate financial management. Various factors are plying their significant role to define the level of capital structure in the business specifically the balance sheet items. The theories like MM approach, signalling and packing order are defending the argument that capital structure is not an independent decision for the decision for the business firms. In the present business environment, items like the size of the business and market repute are very much significant to positively or negatively affect the leverage of the firms. Under the title of trade-off theory, the factors like firm value, debt-equity mixture and finally the bankruptcy cost are associated with each other. However, for the pecking order theory, the hierarchy of internal financing, external financing of debt and finally the external financing equity is also playing a meaningful role. The present study is conducted in the region of Kuwait, Bahrain, and Oman to identify the significant contribution of various balance sheet items including the market repute and business size along with profitability measures. To achieve this objective, regression equations have been developed based on the stated explanatory variables of the study. Among the key factors under the title of stated equations, it is found that the impact of operating fixed assets along with net book value of the fixed assets has their significant contribution to predicting the value of financial leverage in the business over a period under the full sample of the study. In addition, a factor of firm reputation is also playing a significant role for the leverage of the firms during the period of 2011 to 2016. Under the first sub sample of Bahrain firms, it is expressed the impact of CA, CFA and EBIT with ROA is found to be significant with the good explained variation through the value of robust R-square. For the 2nd sub sample, the firms working in the region of Kuwait have been considered to check the impact of explanatory variables through developed models. It is found that for the Kuwaiti firms, the impact of the net book value of fixed assets, earnings before interest and tax, and finally the ROA is significantly associated with the leverage of the firms over time.

The third subsample of the study has considered the firms of Oman, the effect of current assets, operating fixed assets, the net book value of fixed assets, general and admin exp. And finally, he ages along with ROA has significantly affected the value of leverage for the selected firms. Based on the stated findings, the management of the business should consider the findings for the upcoming duration of leverage and debt-equity mixture decision in their business. The negative impact of firm age in some cases has also provided the idea that some of the firms have their negative repute in the marketplace which needs serious attention. Based on the stated findings, authors conclude that the consideration of leverage and related policies is much need of time in recent years by the management of the business firms. The reason that equity and financial market in these regions are under some growth perspective and for the better future outcome, the increasing risk-return tradeoff is an important point to be addressed. At second, to decide between the debt or equity mixture for the optimum level and increasing value of the firm is an important decision which cannot ignore the stated factors in the present study. At third the business environment is very much uncertain in the present years, and as a result, business should consider the effect of the balance sheet on the financing decision as explained in the present study. For the policy implications, controlling of the stated factors which are negatively associated with the leverage is a need of time. So, it is necessary for the business firms to consider the specific items in the balance sheet which are putting an adverse impact on the leverage. Besides, this study contributes in existing literature while focusing on the idea of debt to equity mixture, which has gained very little attention in earlier findings from the context of Kuwait, Behrain, and Oman.

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