Impact of Financial Decisions on Suppliers Relationships with the Business: A study From Kuwait

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The purpose of the present study is to examine the effect of financial decisions on supplier’s relationship with business. For financial decisions factors like dividend decisions, leverage and business growth are selected as major explanatory variables. To measure the supplier’s relationship with the business, accounts payable is selected as the main outcome factor of the study as it measures the supplier’s account using the balance sheet. A sample of 100 manufacturing firms is observed, covering the time of 2011 to 2016 on annual basis. Panel data models under the title of pooled regression, fixed effect, and random effect are applied to check the empirical relationship between the variables. Based on the findings, it is suggested that fixed effect findings under all regression models can be generalized. While under multiple regression models, market leverage, dividend payments, and dividend yield have their significant association with supplier’s accounts. For the panel fixed effect estimator, book leverage, market leverage, and debt to assets are significant determinants of a supplier’s account. For the whole sample of variables, book leverage, market leverage, debt to asset, dividend yield and business growth were identified as significant determinants. However, under the combination of debt to equity, leverage and business growth, debt to equity, dividend yield, and assets growth are significant determinants of a supplier’s account. The originality of this study addresses an identified gap in the empirical literature for financial decisions and supplier relationships with business. This study is further based on several limitations such as advance panel models and robust checks for the data are not observed.

**Key words:** dividend decision, leverage, supplier’s relationship, fixed effect, random effect.
Introduction

In the field of business management, research studies have contributed from both a theoretical and an empirical perspective, and assumed that financial decisions of firms have a significant impact on key stakeholders. The context of economic activities from a global perspective indicates that there is a need for configuration in financial decision making of firms and various parties like customers and suppliers. Numerous studies (J. Baggs & J. Brander, 2006; J. Baggs & J. A. Brander, 2006; Johnson, Kang, & Yi, 2010; Zhou, Booth, & Chang, 2013; Junuz, 2016; Remache and Ibrahim, 2018; Maldonado-Guzman, et.al. 2018) show that corporate decisions are influenced by parties having direct or indirect economic relations with business. In recent times, the literature indicates how a firm’s relationship to its stakeholders can affect the overall business strategy, including leverage and capital structure decisions. One of the significant topics for this relationship is based on the integration of suppliers with the business affecting the financial choices. Titman and Wessels (1988) explain that stakeholders like customers and suppliers have significant influence on business including investment decisions. Meanwhile, costs in the form of customer and supplier retention can affect capital structure too.

Currently literature is available regarding the supplier’s relationship with business and its link with the capital structure and leverage decisions. In Titman & Wessels 1988 study), it was posed that those firms dealing with durable items have a lower value of the leverage. However, various factors are available to explain why firms dealing with durable goods are facing lower leverage position. Association with the suppliers can be observed for its impact on the investment decisions also (Xue, Liang, & Boulton, 2008; Okafor and Shaibu, 2016; Bugu and Yucheng, 2018; Mosbah, et.al. 2017). For instance, if a supplier firm is significantly dependant on the liquidation of the customer, then its sale is also integrated with financing decisions. Based on the close connection with its suppliers, firms always work to reshape their monetary choices which can increase their value. In a study (Charreaux & Desbrières, 2001; Wye and Lim, 2014; Isimoya, 2014; Iyiola, 2014; Šehidić and Agbim and Eluka, 2018; Udanoh and Zouria, 2018;), it was observed that both the factors of shareholder’s value and stockholders value are determined through governance structure of the firm.

Therefore, the focus of the present study is to examine the empirical association between the financial decisions of a firm such as leverage, dividend and business growth and link with the suppliers. The rest of the paper is as follows. Section two reviews the literature from the context of financial decisions and a supplier’s relationship with business. Section three
explains the data and sample, variables and hypotheses. Section four critically analyzes the findings and presents the significant discussion regarding results. Section five provides a comprehensive discussion in context of conclusion, limitations and future implications of the study.

**Literature Review**

Overall supply chain activities cover the title of relationship with the suppliers and business as organizational management decides how to work with the upstream and downstream partners. Earlier studies explain that a supplier’s relationship is based on strategic decisions and is considered as an essential dimension of overall supply chain management practices. Contemporary literature has provided supportive findings for the supplier relationship and its link with business decisions. Recently, Miocevic & Crnjak-Karanovic (2012a, 2012b) explain that supplier relationship and its management can leverage between supply chain, its orientation and purchase decisions of the business. Some other researchers (Teller, Kotzab, & Grant, 2012; Fenyves, Bács, Karnai, Nagy, & Tarnoczi, 2018) find that the significance of the supplier relationship can be viewed from the context of its role in improving overall business process. There exists a positive result for the performance of logistic activities through properly management of their supply to business.

Due to limited empirical contribution for supplier relationship and financial decisions of the business, a significant gap is evident. The existing literature assumes the idea of a supplier relationship as a supply chain management process which can further support the integration between upstream supply chain partners (Flynn, Huo, & Zhao, 2010). This association is likewise examined, up to a strategic level as explained by Hamister, 2012; Hogarth-Scott & Parkinson (1993) and Kotzab, Munch, de Faultrier, & Teller (2011). More precisely, Teller et al., (2012) have given an empirical idea that supplier relationship management plays a significant role in changing the traditional approach of dealing with such partners. Some authors have defined the supplier relation as the higher involvement of business. Based on the various relationship development process, association between the supplier and business is under the title of fourth stage; the commitment level in which both partners share values, structure of governance and other issues (Dwyer, Schurr, & Oh, 1987). In the stage of relationship management, (Heide, 1994) have provided a title of “bilateral non-market governance” which considers the role and responsibilities for both the business firm and its suppliers.

The overall process of supply chain management indicates the firm capability to work on supplier relationships as an internal fitness as described by Halldórsson, Hsuan, & Kotzab, (2015). Such resources are known as the integral component for both inside and outside
success of the business (E. G. Lambert, 2004). The focus of internal supply chain related sources provides the organization with collaboration and integration within departments. Such cooperation covers the communication with the top-level management, capital, human and financial resources, goal setting at an internal level before starting work on SCM, data exchange with the suppliers, and adding the trained personnel who can contribute to overall management process (Boeck & Fosso Wamba, 2008; Sandberg & Abrahamsson, 2010). For integrated relationship with the suppliers, firms should enable internal and external procedures for better organizational outcomes (Hamister, 2012; Sandberg & Abrahamsson, 2010).

The association between firm and supply chain activities is also observed through implicit and explicit contracts. Relationship between suppliers and customers are significantly associated with the capital structure and relevant choices. The reason behind this association is that the debt level of the firm is defined through its investment decisions and a supplier is the main party involved in overall strategic planning of the business (Romano, Tanewski, & Smyrnios, 2001). Meanwhile, bargaining power of the supplier defines the business position and its strategic decisions to develop the relationship with the respective supplier (Porter, 1989). In Vandermerwe & Rada (1988), it is expressed that another party in overall strategic relationship of the business is the customer and integration with the supplier is just to satisfy the needs of present and potential customers. Another supposition indicates that when the business firms produce unique products, both customer and supplier undertake the investment in case the firm is in financial unrest (Hart, 1995). This idea assumes that higher leverage in the business can significantly reduce the incentives for customers and suppliers. In the meantime, relationship-specific investment assumption assumes that both suppliers and customers can be attracted by the firm through low leverage (Hald, Cordón, & Vollmann, 2009; Quinn, 1999; Rockson, Owusu-Anane, & Sey, 2017).

In addition, research studies during the last decade focus on bargaining theory to express the relationship between customers & suppliers with capital structure choice. Research findings by (Hennessy & Livdan, 2009) develop a theoretical model to analyze the optimal level of leverage of the firm which mainly relies on implicit contracts and suppliers (Hussain, Sallehuddin, Shamsudin, & Jabarullah, 2018). They indicate that debt position of the business defines the strategic association with the supplier. This relationship is defined as the bargaining power of the firm and involves lowering the bilateral surplus which can reduce the supplier incentives. However, the optimal level of capital structure is the “balance” between the debt level and efficiency cost (DeAngelo & Stulz, 2015). The model specifies by Fabbri & Klapper, (2016) explains that with more bargaining power evidenced by the supplier, a firm evidences higher level of debt burden in the balance sheet.
Another assumption of a supplier’s business relationship can be viewed from the context of financial distress and bankruptcy. When a business faces bankruptcy, all stakeholders will be affected, either directly or indirectly. For instance, wealth effects of a business’s bankruptcy will not only ripple within the firm but also affect the suppliers and customers. In the study of (Baranchuk & Rebello, 2011), it is found that a business’s bankruptcy affects the supply chain due to spillover effect. Another empirical investigation (Hertzel, Li, Officer, & Rodgers, 2008) explains the wealth effect of bankruptcy and financial distress on customers and suppliers. It was found that negative abnormal loss is faced by the filing firm during the time of bankruptcy. However, in these findings, evidence of contagion to the supplier is severe. Another contribution by (Ali & Haseeb, 2019; Haseeb, Abidin, Hye, & Hartani, 2018; Haseeb., 2019; Suryanto, Haseeb, & Hartani, 2018; Kolay, Lemmon, & Tashjian, 2016) defines the concept of financial distress and its impact on customer relationship with the business and finds that suppliers have faced lower earnings return and lower capital adequacy ratio.

Financial decisions of a business can also be viewed from the context of dividend and its distribution to shareholders (Kajola, Adewumi, & Oworu, 2015). Business earnings are also significantly associated with the supplier’s relationship, but little empirical contribution is provided by the researchers in this regard (Xu, Lin, & Wang, 2015). A firm’s dividend policy has a significant association with the suppliers and customers (Kale & Meneghetti, 2014). For example, (Chan, He, Chan, & Wang, 2012) examine two hypotheses to observe the association between the suppliers and dividend policy. The first one is known under the title of financial distress, indicating that lower dividends will be paid to reduce the probability of financial unrest. Another study (Johnson et al., 2010) provides in depth discussion regarding the negative link between supplier relationship and business dividends. It is proposed that dividend payments can be viewed as governance mechanisms for a business to satisfy its stakeholders while getting better earnings through relationship management with the supplier. Based on the critical review of the literature, the present study has contributed a new insight into the field of the supply chain and its impact on financial decisions of a firm.

**Data and sample collections**

The study sample discussed here comprises of manufacturing firms, currently working in the region of Kuwait during the time of 2011-2016. Only firms dealing with leverage, dividend and investment decision through asset’s growth were selected. A sample of one hundred firms is finalized covering both dimensions of units of observations being observed over time. All information is collected and added to he data sample and no missing value is
observed during the time of study.

**Variables of the study and hypotheses**

**Leverage**

Leverage is defined as the use of fixed cost in the business to magnify the factors of risk and return during a specific time (Gitman, Juchau, & Flanagan, 2015). It covers how much capital comes from the portion of debt financing to meet the financial obligations of the firm (Rajan & Zingales, 1995). Leverage ratio is used for both the debt and equity portion of the business to finance capital investments for long run projects. Long-term debt financing requires fixed obligations like interest payments over the lifetime of a loan (Dailami & Leipziger, 1998), while equity portion covers the fixed payments in the form of dividend for the business. In existing literature, various measures are presented to cover the idea of leverage. For instance, leverage is measured through book leverage, market leverage, debt to asset ratio, and finally debt to equity ratio (Ahmed, Shah, Siddiqui, Shah, Dahri & Qureshi, 2017; Graham, Leary, & Roberts, 2015; Halling, Yu, & Zechner, 2016).

Additionally, both financial and operating leverage are under consideration by the researchers to explain the total leverage of the business (Van Horn & White, 1974). The value of market leverage is defined as the overall book value of long-term debts divided by market value of the assets of the business (Graham et al., 2015). The concept of book leverage is defined through book value of the assets and long-term debt portions in the firm’s balance sheet. The ratio of debt to equity covers the theme of total debt of the business divided by total equity including both preferred and common stock (Peirson, Brown, Easton, & Howard, 2014). The term equity multiplier is also assumed through total assets over total equity (Samad & Hassan, 1999). Debt to assets ratio are measured through total debt burden divided by total assets (Ackert & Deaves, 2009).

The following hypotheses are developed to explain the relationship between leverage and a supplier’s relationship with the business

**H1:** Market leverage is significantly associated with the supplier’s relationship with the business

**H2:** Book leverage is significantly associated with the supplier’s relationship with the business

**H3:** Debt to equity measure is significantly associated with the supplier’s relationship with the business

**H4:** Debt to assets measure is significantly associated with the supplier’s relationship with the business
Dividend Payments

A dividend is the distribution of reward from the portion of overall business earnings to its shareholders (Travlos, Trigeorgis, & Vafeas, 2015). The portion of dividend and its distribution is decided by the managers and board of directors, approved by the stockholders through voting rights. The payment of dividend is in the form of cash, stock or both for the shareholder, but the most common form is a cash dividend by the companies to their shareholders (Travlos et al., 2015). The value of dividend yield is considered as the ratio of annual dividend payments to its stock price in the market. This value is represented through a percentage and is based on the annual value of total dividend paid by the company during a fiscal year. The value of dividend yield provides a comprehensive review regarding the dividend payment capacity and stock prices (Floyd, Li, & Skinner, 2015). Higher dividend yield means more earnings compared to the share value through percentage is distributed to the shareholders. Further, total dividend payment is another indicator to reflect the portion of earnings, provided to the true owners of the business. Dividend payout ratio indicates the total amount paid to shareholders comparatively to the net income of the business and is also known as the percentage of earnings paid to the stockholder. Dividend payout is calculated through yearly dividend per share divided by earnings per share or through net income of the business. In this study all these measures are used in the concept of dividend policy of selected firms.

H5: dividend payment is significantly associated with the supplier’s relationship with the business
H6: dividend yield is significantly associated with the supplier’s relationship with the business
H7: dividend growth is significantly associated with the supplier’s relationship with the business
H8: dividend payout measure is significantly associated with the supplier’s relationship with the business

Business Growth/assets growth

Business growth is a situation or a stage where business reaches a point for expansion and earning of more profit through its operational activities (Haider, 2018; Costa-Climent, & Martínez-Climent, 2018). Growth factor is a function of the life cycle of the business along with industry trends and owner desire to create more value for the business. It also covers various measures for enterprise success like greater product or sale of services with minimum
cost associated to the operations (Lane, 2017; Fatula, 2018). Expansion in the assets class of the business is another indicator to express the growth of the business. The factor of assets growth considers the present and future value of the stock (Dierickx & Cool, 1989). This study has considered the business growth while taking the value of firm size through overall assets during the sample period.

H9: Business growth/assets growth is significantly associated with the supplier’s relationship with the business

**Supplier relationship**

Relationship management is another significant field of study in the literature, covering numerous parties including suppliers and customers. For improved success, business organizations are always trying to develop good associations, specifically with suppliers for long run success in the marketplace (Sengupta, Krapfel, & Pusateri, 1997). Various studies have discussed the strategic role of managing strategic links with suppliers due present and past significance in the literature (Doyle, Moore, & Morgan, 2006). In the field of supply chain management, it is observed that value of the business is created through close relationship with the suppliers and customer. In business to business literature, relationships with the supplier are categorised under buyer-seller and (D. M. Lambert, Cooper, & Pagh, 1998) have shown that logistic performance is significantly depending on the quality of association with the supplier. Hamister (2012) explains the fact that strategic supplier partnership can significantly affect the supplier and business performance.

In this study, significant attention is paid to the idea of supplier relationships with business. Both primary and secondary measures are available in the literature to express the concepts of supplier relationships. One secondary measure is account payables in a firm’s balance sheet which covers the overall supplier’s account in a financial statement from the business (Graham & Harvey, 2001; McLaney, 2006). Strategic supplier partnership is another indicator to reflect supplier’s terms with the business (Ballou, 2007). This study considered also overall value of accounts payable in the balance sheet to reflect the supplier’s relationship with the business (Ahmed, Majid & Zin, 2016; Ali & Haseeb, 2019; Haseeb, Abidin, Hye, & Hartani, 2018; Haseeb., 2019; Suryanto, Haseeb, & Hartani, 2018).

**Method of the Study and Econometric Models**

Based on the selected entities and time, the nature of this study is observed as panel/longitudinal, which allows control on the effect of those variables which cannot be
measured over time due to difference in the business practices (Kacapyr, 2015). Such practices can lead to individual heterogeneity and control for this problem as being only possible through panel regression models. Panel models are suitable to control the effect of unobserved factors over time (Wooldridge, 2015). As per the panel models, three regression models, under the title of pooled regression, fixed effect and random effect were considered. For the pooled regressions the following equations are observed, covering the relationship between explanatory and outcome variables.

\[ y_{it} (Accounts payable) = \alpha + Book\ leverage_{it} + Market\ leverage_{it} + Debt\ to\ asset\ ratio_{it} + Business\ Growth_{it} + \varepsilon_{it} \] (Equation 1)

\[ y_{it} (Accounts payable) = \alpha + Book\ leverage_{it} + Market\ leverage_{it} + Debt\ to\ asset\ ratio_{it} + Debt\ to\ equity_{it} + Dividend\ payments_{it} + Dividend\ yield_{it} + \varepsilon_{it} \] (Equation 2)

\[ y_{it} (Accounts payable) = \alpha + Book\ leverage_{it} + Market\ leverage_{it} + Debt\ to\ asset\ ratio_{it} + Debt\ to\ equity_{it} + Dividend\ payments_{it} + Dividend\ yield_{it} + Dividend\ growth_{it} + dividend\ payout_{it} + \varepsilon_{it} \] (Equation 3)

Model 1 specifies the relationship between the supplier’s account, book leverage, market leverage, debt to asset ratio and finally the business growth for the whole sample of the study, without considering the panel assumptions. Model 2 considers the relationship of leverage factors along with dividend payments and dividend yield with the supplier’s account. Model 3 expresses the relationship between the accounts payable, leverage factors, and dividend variables. After combined regress models, panel models under the title of pooled, fixed and random effect are applied, based on the following equations.

\[ y_{it} (Accounts payable) = \alpha + Book\ leverage_{it} + Market\ leverage_{it} + Debt\ to\ asset\ ratio_{it} + debt\ to\ equity_{it} + \varepsilon \] (Equation 4: Pooled Regression)

\[ y_{it} (Accounts payable) = \alpha + Book\ leverage_{it} + Market\ leverage_{it} + Debt\ to\ asset\ ratio_{it} + debt\ to\ equity_{it} + uit \] (Equation 5: Fixed Effect Regression)

\[ y_{it} (Accounts payable) = \alpha + Book\ leverage_{it} + Market\ leverage_{it} + Debt\ to\ asset\ ratio_{it} + debt\ to\ equity_{it} + uit + \varepsilon \] (Equation 6: Random Effect Regression)

Equation 4 indicates the pooled regression model for the whole sample while taking into
consideration all the indicators of leverage. Equation 5 specifies the fixed effect regression equation, controlling the effect of those factors which can vary over time and effect the coefficients of the study. Equation 6 indicates the random effect model, based on the between the entity error (uit), and within entity error (eit).

\[
y_{it} (\text{Accounts payable}) = \alpha + \text{Book leverage}\beta_1 + \text{Market leverage}\beta_2 + \\
\text{Debt to asset ratio}\beta_3 + \text{Debt to equity}\beta_4 \text{Dividend payments}\beta_5 + \\
\text{Dividend yield}\beta_6 + \text{Dividend growth}\beta_7 + \text{business growth}\beta_8 + \\
e_{it} \quad \text{(Equation 7: Pooled regression)}
\]

\[
y_{it} (\text{Accounts payable}) = \alpha + \text{Book leverage}\beta_1 + \text{Market leverage}\beta_2 + \\
\text{Debt to asset ratio}\beta_3 + \text{Debt to equity}\beta_4 + \text{Dividend payments}\beta_5 + \\
\text{Dividend yield}\beta_6 + \text{Dividend growth}\beta_7 + \text{business growth}\beta_8 + \\
\text{uit} \quad \text{(Equation 8: Fixed Effect Regression)}
\]

\[
y_{it} (\text{Accounts payable}) = \alpha + \text{Book leverage}\beta_1 + \text{Market leverage}\beta_2 + \\
\text{Debt to asset ratio}\beta_3 + \text{Debt to equity}\beta_4 + \text{Dividend payments}\beta_5 + \\
\text{Dividend yield}\beta_6 + \text{Dividend growth}\beta_7 + \text{business growth}\beta_8 + \text{uit} + \\
\text{eit} \quad \text{(Equation 9: Random Effect Regression)}
\]

Equation 7 indicates the pooled regression model for the whole sample while taking into consideration all the indicators of leverage and dividend. Equation 8 specifies the fixed effect regression equation, controlling the effect of those factors which can vary over time and affect the coefficients of the study. Equation 9 indicates the random effect model, based on the between the entity error (uit), and within entity error (eit).

\[
y_{it} (\text{Accounts payable}) = \alpha + \text{Debt to equity}\beta_1 + \text{Dividend payments}\beta_2 + \\
\text{Dividend yield}\beta_3 + \text{Dividend growth}\beta_4 + \text{business growth}\beta_5 + \\
e \quad \text{(Equation 10: Pooled regression)}
\]

\[
y_{it} (\text{Accounts payable}) = \alpha + \text{Debt to equity}\beta_1 + \text{Dividend payments}\beta_2 + \\
\text{Dividend yield}\beta_3 + \text{Dividend growth}\beta_4 + \text{business growth}\beta_5 + \\
e_{it} \quad \text{(Equation 11: fixed effect regression)}
\]

\[
y_{it} (\text{Accounts payable}) = \alpha + \text{Debt to equity}\beta_1 + \text{Dividend payments}\beta_2 + \\
\text{Dividend yield}\beta_3 + \text{Dividend growth}\beta_4 + \text{business growth}\beta_5 + \text{uit} + \\
e_{it} \quad \text{(Equation 12: Random Effect Regression)}
\]
Equation 10 explains the pooled regression model for the whole sample considering dividend and business growth as main explanatory variables of a supplier’s account. Equation 11 specifies the fixed effect regression equation, and equation 12 indicates the random effect model, between the entity error ($u_{it}$), and within the entity error ($e_{it}$).

Results and Discussion

Table 1 below expresses the empirical findings for the multiple regression equation from 1-3. For leverage, factors are entitled as book-lev, market lev, debt to assets, and debt to equity, added in the model. To examine the impact of dividend, factors like dividend payments, dividend yield, and dividend growth are observed. Finally, size of the firms is measured through assets growth. For the first model, impact of market leverage is .910 indicating significant and positive impact on accounts payable. This impact species that market leverage can increase the value of account payables. For the assets growth, the impact on suppliers account is 5.822 indicating a positive and significant influence. For model two, book leverage, debt to assets ratio, debt to equity ratio, and dividend payments along with dividend yield are significantly impacting the supplier’s account in balance sheet. For model 3, leverage factors like book leverage, market leverage and debt to asset ratios are found to be the significant determinants of supplier’s account. From dividend indicators, all the factors significantly affect accounts payable. However, for model 3, the impact of assets growth is not under observation.

Table 1: Multiple Regression Models

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book_lev</td>
<td>-0.0317</td>
<td>-0.152***</td>
<td>0.133***</td>
</tr>
<tr>
<td></td>
<td>(0.0605)</td>
<td>(0.0533)</td>
<td>(0.0189)</td>
</tr>
<tr>
<td>Market lev</td>
<td>0.910**</td>
<td>0.0963</td>
<td>0.105*</td>
</tr>
<tr>
<td></td>
<td>(0.432)</td>
<td>(0.294)</td>
<td>(0.0632)</td>
</tr>
<tr>
<td>Debt-to Asset</td>
<td>0.196</td>
<td>0.847**</td>
<td>0.731***</td>
</tr>
<tr>
<td></td>
<td>(0.554)</td>
<td>(0.340)</td>
<td>(0.0752)</td>
</tr>
<tr>
<td>Debt-to-Equity</td>
<td>-64.748***</td>
<td>19.414</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.458)</td>
<td>(3.504)</td>
<td></td>
</tr>
<tr>
<td>Dividend Payments</td>
<td>0.650***</td>
<td>15.44***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.228)</td>
<td>(1.265)</td>
<td></td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>4.501***</td>
<td>-10.94***</td>
<td></td>
</tr>
</tbody>
</table>

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After applying a multiple regression technique, panel models like pooled regressions, fixed effect and panel effect are further applied. For model 4, market leverage has a coefficient of .910 with the standard error of .432. This impact implies that increasing market leverage can increase the current portion of the supplier’s account in the balance sheet. For the debt to equity indicator of leverage, positive and significant impact of 5.882 was examined. It is implied that higher debt to equity ratio leads to more supplier’s balance in the firm’s financial statement. Overall value of R-square is 88.5 percent indicates a good change in accounts payable due to leverage factors under the title of pooled regression equation. Under fixed effect model, book leverage is found to be negatively and significantly affecting the accounts payable (AP). While for the market leverage, impact on supplier’s account is significantly positive. For debt to asset ratio, coefficient of 1.307 species that higher this ratio can positively and significantly increase the supplier’s balance. The rest of the indicators under fixed effect are found to be insignificant for AP. Under random effect, the effect of book leverage and market leverage along with debt to asset ratio is significant and positive for A.P. It implies that except debt to equity ratio, all leverage factors are significantly affecting the supplier’s account in manufacturing firms, over the last six years. For random effect, explanatory power of leverage factors is 68.7 percent and for fixed effect, it is 62.3 percent approximately.

### Table 2: Panel regression Models for Leverage and Accounts Payable

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>PRM (4)</th>
<th>FEM (5)</th>
<th>REM (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book_lev</td>
<td>-0.0317</td>
<td>-0.324***</td>
<td>-0.122***</td>
</tr>
<tr>
<td></td>
<td>(0.0605)</td>
<td>(0.0352)</td>
<td>(0.0276)</td>
</tr>
<tr>
<td>Market lev</td>
<td>0.910**</td>
<td>0.255**</td>
<td>0.724***</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
The comparison between fixed and random effect model has been completed using the through Hausman test, which indicates the best-fitted coefficients from both the models. Table 3 below presents the coefficients for the fixed and random effect, their difference and square roots of the difference with standard error. To decide whether fixed effect or random effect findings are significant for the decision making, chi-square value was examined. The value of chi-square is 132.032 and is significant at 5 percent, explaining that fixed effect findings are acceptable for the consideration in the first-panel regression equations.

**Table 3: Hausman Test for Model 5-6**

<table>
<thead>
<tr>
<th></th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed</td>
<td>Random</td>
<td>Difference</td>
<td></td>
</tr>
<tr>
<td>Book Lev</td>
<td>-0.32425</td>
<td>-0.12188</td>
<td>-0.20237</td>
<td>0.02189</td>
</tr>
<tr>
<td>Market Lev</td>
<td>0.254733</td>
<td>0.724376</td>
<td>-0.46964</td>
<td>0.054531</td>
</tr>
<tr>
<td>Debt to Assets</td>
<td>1.307149</td>
<td>0.544204</td>
<td>0.762946</td>
<td>0.078751</td>
</tr>
<tr>
<td>Debt to Equity</td>
<td>1822.69</td>
<td>3263.287</td>
<td>-1440.6</td>
<td></td>
</tr>
<tr>
<td>Chi-square</td>
<td>132.032**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 below indicates the findings of all the explanatory variables: leverage, dividend and firm growth. The effect of book leverage indicates a significant and negative impact on suppliers’ accounts for the whole sample of the study. It explains that increasing book leverage causing a decline in the value of accounts payable. For the market leverage, both fixed and random effect models explain a significantly negative effect of -.418 and -.114 respectively. However, in PRM its effect is positive but insignificant. For debt to equity measure of leverage, under all three models of panel regression, significant and positive
effect is observed, expressing that higher debt to asset ratio causes an increase in the value of supplier’s accounts in the firm’s balance sheet. For debt to equity ratio, all the items indicate an insignificant impact on supplier’s account. For dividend payment, the same insignificant effect on supplier’s account is observed. For the dividend yield, pooled regression indicates a positive and significant change of 15.59 percent. While under fixed effect, an impact of 6.477 percent and under random effect is 11.58 is recorded. However, for dividend growth, significant negative effect on supplier’s account is examined in all panel models. For asset’s growth, it is found that higher firm size led to an increased value of the supplier’s relationship with the company, and hence presents more share in the balance sheet. The explanatory power of pooled regression for the whole model is 94.5 percent, and for the fixed effect is 87.6 percent respectively.

**Table 4**: Panel regression Models for Leverage, dividend, business growth and Accounts Payable

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book_lev</td>
<td>-0.134***</td>
<td>-0.417***</td>
<td>-0.240***</td>
</tr>
<tr>
<td></td>
<td>(0.0476)</td>
<td>(0.0245)</td>
<td>(0.0208)</td>
</tr>
<tr>
<td>Market lev</td>
<td>0.103</td>
<td>-0.418***</td>
<td>-0.114*</td>
</tr>
<tr>
<td></td>
<td>(0.304)</td>
<td>(0.0680)</td>
<td>(0.0654)</td>
</tr>
<tr>
<td>Debt-to Asset</td>
<td>0.731**</td>
<td>1.539***</td>
<td>1.066***</td>
</tr>
<tr>
<td></td>
<td>(0.355)</td>
<td>(0.0944)</td>
<td>(0.0837)</td>
</tr>
<tr>
<td>Debt-to-Equity</td>
<td>3.582</td>
<td>1.418</td>
<td>2.170</td>
</tr>
<tr>
<td></td>
<td>(2.999)</td>
<td>(5.173)</td>
<td>(5.703)</td>
</tr>
<tr>
<td>Dividend Payments</td>
<td>2.851</td>
<td>-2.426</td>
<td>2.35</td>
</tr>
<tr>
<td></td>
<td>(2.301)</td>
<td>(2.487)</td>
<td>(2.791)</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>15.59***</td>
<td>6.477***</td>
<td>11.58***</td>
</tr>
<tr>
<td></td>
<td>(2.731)</td>
<td>(1.420)</td>
<td>(1.314)</td>
</tr>
<tr>
<td>Dividend Growth</td>
<td>-11.10***</td>
<td>-0.792</td>
<td>-6.228***</td>
</tr>
<tr>
<td></td>
<td>(2.761)</td>
<td>(1.508)</td>
<td>(1.397)</td>
</tr>
<tr>
<td>Assets-Growth</td>
<td>46.7***</td>
<td>92.53***</td>
<td>19.3***</td>
</tr>
<tr>
<td></td>
<td>(43.94)</td>
<td>(23.59)</td>
<td>(21.81)</td>
</tr>
<tr>
<td>Constant</td>
<td>13.850</td>
<td>18.377</td>
<td>6.420</td>
</tr>
<tr>
<td></td>
<td>(3.64)</td>
<td>(3.74)</td>
<td>(3.73)</td>
</tr>
<tr>
<td>Observations</td>
<td>591</td>
<td>591</td>
<td>591</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.945</td>
<td>0.876</td>
<td></td>
</tr>
</tbody>
</table>
To understand the significance between fixed and random effect, Hausman test findings are presented in table 5 below. The difference between both the coefficients is presented through a Chi-square value of 181.82, which indicates that fixed effect findings are acceptable for the whole model of the study.

Table 5: Hausman Test for Model 8-9

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt(diag(V_b-V_B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book_lev</td>
<td>-0.4174</td>
<td>-0.23986</td>
<td>-0.1775442</td>
<td>0.012891</td>
</tr>
<tr>
<td>Market lev</td>
<td>-0.41755</td>
<td>-0.11445</td>
<td>-0.3030996</td>
<td>0.018773</td>
</tr>
<tr>
<td>Debt-to Asset</td>
<td>1.538983</td>
<td>1.066181</td>
<td>0.4728023</td>
<td>0.043809</td>
</tr>
<tr>
<td>Debt-to-Equity</td>
<td>1.482</td>
<td>2.170</td>
<td>-0.688</td>
<td>.</td>
</tr>
<tr>
<td>Dividend Payments</td>
<td>-2.851</td>
<td>2.35</td>
<td>-5.2</td>
<td>11.09</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>6.476807</td>
<td>11.57876</td>
<td>-5.101952</td>
<td>0.537922</td>
</tr>
<tr>
<td>Dividend Growth</td>
<td>-0.79184</td>
<td>-6.22835</td>
<td>5.43651</td>
<td>0.567168</td>
</tr>
<tr>
<td>Assets-Growth</td>
<td>92.528</td>
<td>19.301</td>
<td>73.227</td>
<td>8.978089</td>
</tr>
<tr>
<td>Chi-square=</td>
<td>181.82***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 below indicates the panel regression findings for the leverage and asset’s growth on accounts payable for the whole sample. The effect of debt to equity under pooled regression, fixed effect, and random effect is significant and negative. However, for dividend payments and dividend growth, insignificant effect is observed across the full sample. For assets growth, a coefficient of 5.212 under pooled regression explains a positive influence on suppliers account, while for the fixed and random effect, both models have explained a positive and significant effect on A.P.

Table 6: Panel regression Models for debt to equity, dividend, business growth and Accounts Payable

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt-to-Equity</td>
<td>-0.165***</td>
<td>-0.444***</td>
<td>-0.312***</td>
</tr>
<tr>
<td></td>
<td>(0.0526)</td>
<td>(0.0233)</td>
<td>(0.0210)</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient (Fixed)</td>
<td>Coefficient (Random)</td>
<td>Coefficient (Difference)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------</td>
<td>----------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Dividend Payments</td>
<td>0.0991</td>
<td>-0.442***</td>
<td>-0.202***</td>
</tr>
<tr>
<td></td>
<td>(0.292)</td>
<td>(0.0688)</td>
<td>(0.0684)</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>0.841**</td>
<td>1.668***</td>
<td>1.300***</td>
</tr>
<tr>
<td></td>
<td>(0.341)</td>
<td>(0.0899)</td>
<td>(0.0864)</td>
</tr>
<tr>
<td>Dividend Growth</td>
<td>6.429</td>
<td>1.258</td>
<td>2.358</td>
</tr>
<tr>
<td></td>
<td>(4.041)</td>
<td>(5.274)</td>
<td>(5.815)</td>
</tr>
<tr>
<td>Assets-Growth</td>
<td>5.212***</td>
<td>5.936***</td>
<td>5.895***</td>
</tr>
<tr>
<td></td>
<td>(1.235)</td>
<td>(0.269)</td>
<td>(0.274)</td>
</tr>
<tr>
<td>Constant</td>
<td>30.6304***</td>
<td>37.579</td>
<td>-21.870**</td>
</tr>
<tr>
<td></td>
<td>(73.431)</td>
<td>(74.304)</td>
<td>(88.592)</td>
</tr>
<tr>
<td>Observations</td>
<td>591</td>
<td>591</td>
<td>591</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.930</td>
<td>0.871</td>
<td></td>
</tr>
<tr>
<td>Number of id</td>
<td>100</td>
<td>99</td>
<td>99</td>
</tr>
</tbody>
</table>

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

For leverage and assets growth, the Hausman test indicate which model (either fixed or random) is assumed to be appropriate. The value of chi-square is found to be significant, finally in favour of the alternative hypothesis that fixed effect findings can be suggested for the relationship between suppliers account, firm’s leverage and assets growth across the whole sample.

**Table 5: Hausman & Breusch and Pagan Lagrangian multiplier Test for Model 11-12**

<table>
<thead>
<tr>
<th>Variable</th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt(diag(V_b-V_B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets Growth</td>
<td>-0.44365</td>
<td>-0.31172</td>
<td>-0.13193</td>
<td>0.0100255</td>
</tr>
<tr>
<td>Dividend Payments</td>
<td>-0.44157</td>
<td>-0.20194</td>
<td>-0.23963</td>
<td>0.0066902</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>1.667708</td>
<td>1.299739</td>
<td>0.36797</td>
<td>0.0249923</td>
</tr>
<tr>
<td>Dividend Growth</td>
<td>1.258</td>
<td>2.358</td>
<td>-1.101</td>
<td></td>
</tr>
<tr>
<td>Assets-Growth</td>
<td>5.935967</td>
<td>5.894986</td>
<td>0.040981</td>
<td></td>
</tr>
</tbody>
</table>

Chi-square= 153.632
Breusch and Pagan Lagrangian multiplier test for random effects
Chi-square= 196.93***

Based on the above findings, the following hypotheses are accepted.
H1: Market leverage is significantly associated with the supplier’s relationship with the business.
H2: Book leverage is significantly associated with the supplier’s relationship with the business.

H4: Debt to assets measure is significantly associated with the supplier’s relationship with the business.

H5: Dividend payment is significantly associated with the supplier’s relationship with the business.

H6: Dividend yield is significantly associated with the supplier’s relationship with the business.

H9: Business growth/assets growth is significantly associated with the supplier’s relationship with the business.

Conclusions and Future Implications

In earlier studies, stakeholders like customers and suppliers had not been observed significantly from the context of leverage, dividend and asset growth. Due to this gap in the literature, the present study was designed with a focus on the supplier’s context through their relationship with the business, based on the accounts payable through dividend, leverage and a firm’s growth. To understand this relationship, a sample of one hundred manufacturing firms from the region of Kuwait was selected and data collected for a six year cycle. To examine the association between the selected determinants and suppliers account, panel models under the categories of pooled regression, fixed effect and random effect were applied for overall model and split models for leverage, dividend and firm growth.

In the very first model, multiple regression models were applied based on the developed equations. It was found that significant determinants of supplier’s accounts are book leverage, debt to equity and dividend yield. For the panel regression models, it is observed that factors like book leverage under fixed effect and random effect are the significant indicators of a supplier’s account. Market leverage is observed as a significant determinant of accounts payable under equation four to six. For debt to assets, it is found that under fixed and random effect, the influence on a supplier’s account is significant and positive. In addition, under all panel models of the study, the effect of book leverage, debt to asset ratio, dividend yield, dividend growth and finally assets growth is found to be significant. Under final panel regression models, the effect of debt to equity, dividend yield and assets growth is found to be significant on a supplier’s account. The comparison of fixed and random effect through the Hausman test in all the models finds fixed effect regression with good explanatory power. The findings indicate that for a better relationship with suppliers, business and or firms need to focus on leverage indicators, along with dividend and firm growth.
Earlier studies (Jensen & Meckling, 1976) have described contemporary trends in corporate business, based on analysis of contracts with the suppliers of a business. It is observed that business firms will make decisions, based on the assumption that financial choices reflect the interests of various stakeholders having direct and indirect economic relations with a firm. Meanwhile, in Titman & Wessels (1988) study, the relationship between the capital structure of the business and a firm’s suppliers was examined empirically providing a pathway for further research in recent times. Claims that the financial decisions of a business/firm are affected when there is no consideration of explicit contracts (Zingales, 2000) have been given further clarity with this study which fills the existing gap in literature while examining the empirical relationship between the suppliers of a business and factors like leverage, dividend decisions and a firm’s growth.

This empirical association provides a new insight to researchers from the context of supply chain and financial decisions of a business such as dividend, leverage and firm growth. However, several limitations were also observed in this study. Firstly, this study focused on the manufacturing sector only while ignoring the pure financial sector like banking firms and insurance companies. Secondly, the time duration of the study considered only six years, which is known in the field as short panel. Thirdly, other financial decisions such as in assets management and investment and the impact of working capital elements like current assets and current liabilities have not been observed in this study. Future research findings can be better extracted based on covering such limitations. The significant implication of the study then is its empirical contribution to the literature and in the provision of guidelines to various policymakers and financial analysts dealing with financial decisions in the context of supplier relationships in the manufacturing industry.

REFERENCES


