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RESEARCH ARTICLE

DETERMINANTS OF FINANCIAL PERFORMANCE OF NON-FINANCIAL SECTOR: EVIDENCE FROM PUBLIC TEXTILE SECTOR OF SYRIA.

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Abstract

The objective of this study is to examine the determinants of financial performance of public textile firms in Syria. The analysis of present study is based on unbalanced panel data of 7 public textile firms for the period 2000-2016. Panel multiple regression analysis is used for estimation. The empirical results show that debt financing has a negative and significant effect on profitability of public textile firms operating in Syria, while both company size and sales growth have a positive and significant effect on financial performance.

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Introduction:-

Financial performance is crucial to firm's value, health and survival, therefore both firm's management and its stakeholders are interested in the firm's financial performance. If the management is effective and efficient in allocating the firm's resources, then it will maximize the shareholder's wealth and increase the firm's value leading to a high level of financial performance (Abbas, 2013; Ayako et al., 2015; Bongoye et al., 2016).

In order to increase the firm's performance, management should be aware of the factors that affect the firm's financial performance. Financing decision or capital structure is considered as one of the most important factors that has association with financial performance. Modigliani and Miller (1958) were the pioneers of the capital structure theory, followed by a number of theories among which are more common: Trade-off theory (Modigliani and Miller, 1963), Agency theory (Jensen and Meckling, 1976), and Pecking order theory (Myers, 1984; Myers and Majluf, 1984). All these theories emphasized the importance of capital structure in its relation with financial performance. Not only financing decisions, but also investing decisions play a great role in determining the firm's financial performance. In addition, firm's characteristics (i.e. firm size, firm age, liquidity, sales growth, etc.) have been tested by a lot of empirical studies. The macroeconomic environment (business cycle, crises, etc.) also has its impact on the firm's financial performance.

The aim of this study is to investigate the determinants of financial performance of public textile companies in Syria. The textile sector in Syria plays a key role in the Syrian economy, that is Syria is one of the world's top cotton producers and textiles and clothing represent over 25% of industrial GDP making textile manufacturing one of the largest industrial sectors in Syria (Bisso, 2009; IMF Country Report, 2006). The textile industry of Syria is composed of a few large public companies and a large number of small and medium private companies. There are 26 public firms supervised by the General Organization for Textile Industry (GOTI), which was established by

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legislative decree No. 2174 dated 31/7/1975. On the other hand, there are approximately 24000 small and medium enterprises (SMEs) owned by private sector. Our concentrate is on public companies because they are large companies and have the major part of the country's cotton and wool yarn spinning capacities and blanket production (Bisso, 2009). In addition, most of private companies are micro or small¹, therefore there are difficulties regarding getting financial statements from them.

The rest of the paper is organized as follows. The next section reviews the past empirical literatures, followed by a section of the methodology applied in the present study. Next section presents the empirical results and discussion. The final sections draws conclusions and recommendations.

Literature Review:-

A lot of studies have examined the determinants of financial performance or have studied the relationship between capital structure and financial performance. The majority of the studies have focused on the insurance and manufacturing sectors in the developed economies (Ayako et al., 2015). Therefore, there still a gap regarding financial performance of non-financial sector in developing countries.

By reviewing the recent literatures on the determinants of financial performance of textile sector in developing countries, the researchers noticed that most of studies have taken the case of Pakistan (Rehman et al., 2012; Memon et al., 2012; Abbas, 2013; Mujahid and Akhtar, 2014; Ahmad et al., 2015; Tauseef et al., 2015; Javed et al., 2015; Habib et al., 2016). Some of them has taken the case of India (Ramachandran and Madhumathy, 2016), and others have taken the case of Turkey (Azarmi, 2014). Table (1) draws survey for these studies.

Table 1:-survey of recent literatures on the determinants of financial performance of textile sector in developing countries

| Researchers | Sample & Data | Variables | Method | Results |
|---------------------------|--|---|----------------------|--|
| Rehman et al. (2012) | Panel data of 17 textile firms for the period 2003-2007 in Pakistan | The dependent variable: return on equity (ROE). The independent variables: short-term debt, long-term debt, total debt, and sales growth | Pooled OLS | There is a significant and positive impact of short term debts on the profitability, however long-term debt has no impact on the profitability. Sales growth has non-significant effect. |
| Memon et al. (2012) | Panel data of 141 textile firms for the period 2004-2009 in Pakistan | The dependent variable: return on assets (ROA). The independent variables: leverage, size, growth, tangibility, risk, tax. | Pooled OLS | Leverage, size and tangibility are negatively related to the ROA. Risk, tax and growth are positively related to ROA. |
| Abbas (2013) | Panel data of 139 textile firms for the period 2005-2010 in Pakistan | The dependent variable: ROA. The independent variables: leverage, growth, size, risk, tax, tangibility, liquidity and non-debt tax shield. | Fixed effects model | Leverage has negative while size, risk, tax and non-debt tax shield have positive impact on firm's profitability. Other variables do not play significant role. |
| Azarmi (2014) | Panel data of 16 textile firms for the period 1999-2012 in Turkey | The dependent variable: ROA, ROE. The independent variables: size, tangibility, growth, leverage and tax. | Random effects model | Leverage and tax have negative impact on firm's profitability. Other variables do not play significant role. |
| Mujahid and Akhtar (2014) | Panel data of 155 textile firms for the period 2006-2011 in Pakistan | The dependent variables: ROA, ROE, and EPS. The independent variable: debt to equity | Pooled OLS | Debt to equity has negative effect on financial performance and shareholder wealth. |
| Ahmad et al. | Panel data of 111 | The dependent variable: | Feasible | Leverage, growth and liquidity |

¹ 19657 companies of them have 5 or less workers (Bisso, 2009).

| | | | | |
|------------------------------------|--|---|---------------------------------------|--|
| (2015) | textile firms for the period 2006-2011 in Pakistan | Net profit. The independent variables: size, assets turnover, growth, leverage and liquidity. | Generalized Least Square (FGLS) model | have negative impact on firm's profitability. Size and assets turnover have positive impact. |
| Tauseef et al. (2015) | Panel data of 95 textile firms for the period 2002-2008 in Pakistan | The dependent variable: ROE. The independent variables: leverage, size, and sales growth | Fixed effects model | As the debt-to-asset ratio increases, initially the ROE increases until an optimal debt level is reached, after that it starts decreasing. Sales growth has positive and significant effect whereas the firm size has no significant impact on its ROE. |
| Javed et al. (2015) | Panel data of 154 textile firms for the period 2006-2011 in Pakistan | The dependent variables: ROA, ROE, and market to book ratio (MBR). The independent variables: total debt, long-term debt, liquidity, and size. | Pooled OLS | Total debt and long-term debt have negative effect on ROA and ROE. While size and liquidity have positive effect on ROA and ROE. In case of MBR model, total debt, long-term debt and liquidity have positive effect. |
| Habib et al. (2016) | Panel data of 340 textile firms for the period 2003-2012 in Pakistan | The dependent variable: ROA. The independent variables: short-term debt, long-term debt, total debt, size, sales growth, and growth opportunities. | Random effects model | Short term debt and total debt have negative effect on ROA. Both size and growth opportunities have positive effect on ROA, while sales growth has negative effect. |
| Ramachandran and Madhumathy (2016) | Panel data of 10 textile firms for the period 2004-2014 in India | Capital structure variables: debt to equity ratio Profitability variables: net profit margin, return on capital employed, ROE, ROA, and EPS | Correlation Analysis | All profitability variables have negative association with debt to equity ratio |

Source: survey by authors

Other non-financial sectors have been examined by other studies in developing countries. For example, Koroti (2013) examined the effect of investing and financing decisions on financial performance of the sugar factories in Kenya. The researcher used a sample of four sugar factories, which are state corporations, during the period 2008-2013. Multiple liner regression model was used. Return on Assets (ROA) was used as proxy of financial performance, ln of total assets was used as proxy of investing decision, and debt to equity was used as proxy of financing decision. The study found that investing decision positively affected financial performance, whereas there was a negative effect of financing decision on financial performance.

Ayako et al. (2015) analyzed the factors influencing the performance of non-financial companies listed on the Nairobi Securities Exchange (NSE) using panel data of 41 companies over the period 2003 to 2013. The researchers used ROA and ROE as measures of financial performance, and they used the following independent variables: board size, board independence, leverage, liquidity, and firm size. Random effects model was applied for ROA estimation and a fixed effects model was applied for ROE estimation. The empirical results showed that board size and board independence have positive effect on financial performance, while leverage has negative effect on financial performance. Liquidity and firm size did not play significant role in determining financial performance.

Bongoye et al. (2016) examined the effect of firm specific factors on financial performance of non-financial firms listed at NSE. The study used panel data of 37 non-financial firms over the period 2011 to 2015. The dependent variable was ROA, while the independent variables were: asset tangibility, firm size, liquidity, and growth

opportunities. The findings of the study showed that both size and liquidity have positive effect on financial performance, while other variables have non-significant effect.

There are no research findings available in Syria context. Thus, this study contributes to the literatures by providing new evidence of determinants of financial performance of textile sector in Syria. In addition, most of literatures have focused on listed companies, but this study has taken non-listed companies.

Methodology:-

Population and Sample:

The population of this study consists of /26/ public sector textile firms supervised by the GOTI. The GOTI firms distributed between seven sections: spinning, textile, apparel, garments, wool carpet, wool yarn and other (Table 2). All these firms are public owned firms and they are non-listed in Damascus Securities Exchange (DSE) market.

Due to data limitation, a sample of /7/ firms that accounts for 27% of all public textile firms was chosen. Table (3) shows the sample under study which geographically distributed among several governers in Syria.

Table 2:-GOTI Firms

| GOTI firms | Population | Sample | Percentage |
|-------------------|------------|----------|------------|
| Spinning firms | 8 | 4 | 50% |
| Textile firms | 7 | 2 | 28.6% |
| Apparel firms | 2 | 0 | 0% |
| Garments firms | 2 | 1 | 50% |
| Wool carpet firms | 2 | 0 | 0% |
| Wool yarn firms | 1 | 0 | 0% |
| Other firms | 4 | 0 | 0% |
| Total | 26 | 7 | 27% |

Source: GOTI website <http://site.textile.org.sy/>

Table 3:-Sample

| Companies | Proxy | Governorate | Date of Establishment |
|---|-------------|-------------|---|
| 1 The General Company for Cotton Yarns in Lattakia | KHYOT-LATAK | Lattakia | 1997 |
| 2 Jableh Modern Co. for Spinning | GAZL | Jableh | 2004 |
| 3 Hama Company for cotton yarn | KHYOT-HAMA | Hama | 1975 |
| 4 Alwaleed Spinning Company | WALID | Homs | 1978 |
| 5 United Arab Industrial Company – Al Dibs / Damascus | DIBS | Damascus | The company was established in 1954 But it was nationalized in 1964 |
| 6 Lattakia Textile Company | NASIG | Lattakia | 1976 |
| 7 Syrian Company for Ready Made Garments – Waseem | WASIM | Damascus | 1978 |

Source: Companies' websites

Data Collection:-

This study used secondary data and utilized panel/longitudinal data that consists of time series and cross sections. The data for all variables used in this study were extracted from unpublished annual reports that have been obtained through the field visits to the textile companies under study. The dataset of 7 public textile firms operating in Syria for the period 2000-2016 is used.

Empirical Model:-

This study seeks to investigate the determinants of financial performance of non-financial firms (textile firms) that are working in Syria. The dependent variable is the financial performance that is measured by Return on Assets (ROA). While the independent variables can be classified into four categories:

1. Financing decisions (or capital structure) variables: total debt to total assets;

2. Investing decisions variables: fixed assets growth and tangible assets to total assets;
3. Company's characteristics variables: firm size and sales growth²;
4. Macroeconomic environment variables: Syria's crisis since 2011.

The empirical model of this study is specified as follows:

$$ROA_{it} = \beta_0 + \beta_1 TD_{it} + \beta_2 FAG_{it} + \beta_3 TAN_{it} + \beta_4 SIZE_{it} + \beta_5 SG_{it} + \beta_6 CRISIS_{it} + e_{it}$$

Whereas:

i: Represent each of the companies in the sample ($i= 1, \dots, 7$); **t**: Stands for the period of time ($t= 1, \dots, 17$); **ROA_{it}**: Return on Assets of firm *i* at time *t*; **TD_{it}**: Total debt ratio of firm *i* at time *t*; **FAG_{it}**: Fixed assets growth rate of firm *i* at time *t*; **TAN_{it}**: Tangibility of assets of firm *i* at time *t*; **SIZE_{it}**: Size of firm *i* at time *t*; **SG_{it}**: Sales growth of firm *i* at time *t*; **CRISIS_{it}**: Syria's crisis; **β₀**: Constant term; **β₁ to β₆**: Coefficients of the independent variables; **e_{it}**: The error term.

Table (4) shows the definition and measurement of variables used in this study.

Table 4:-Definition of variables

| De pe | Proxy | Measurement | |
|---|---|---|--|
| Independent Variables: | Financial Performance Variables: | | |
| | Return on Assets | ROA | Net Income / Total Assets |
| | Financing Decisions Variables: | | |
| | Total Debt Ratio | TD | Total Debt / Total Assets |
| | Investing Decisions Variables: | | |
| | Fixed Assets Ratio | FAG | Total Fixed Assets Growth Rate |
| | Tangible Assets Ratio | TAN | Net Tangible Fixed Assets / Total Assets |
| | Company's Characteristics Variables: | | |
| | Size | SIZE | Natural Logarithm of Sales |
| | Growth | SG | Net Sales Growth Rate |
| Macroeconomic Environment Variables: | | | |
| Syria's Crisis | CRISIS | Dummy variable that takes two values: 0 for the period pre the Syrian crisis (2000-2010) and 1 for the period after the Syrian crisis (2011-2016) | |

Estimation Methods:-

The data was analyzed using descriptive statistics, correlation analysis, and panel data regression analysis that was carried out to examine the determinants of financial performance of public textile firms in Syria.

Before conducting the regression analysis, correlation matrix, Variance Inflation Factor (VIF) and Tolerance (TOL) were used to test for multi-collinearity. In addition, unit root tests must be done to make sure that the variables of the study are stationary in order to avoid spurious regression (Asteriou and Hall, 2007). There are various panel unit root tests among which are more common: Levin, Lin and Chu (2002), Im, Pesaran and Shin (2003), Fisher ADF and Fisher PP tests. In addition, panel cross-section dependence test is applied, because several panel unit root tests assumed cross-section independence. Also accounting for cross-section dependence is important and affects inference (Baltagi, 2005). There are variety of tests for cross-section dependence among which are more common: Breusch-Pagan (1980) LM, Peasaran (2004) scaled LM, Baltagi, Feng and Kao (2012) Bias-corrected scaled LM, and Pesaran (2004) CD.

For estimation purpose, the most commonly models are pooled OLS regression, fixed effects regression model and random effects regression model. Hausman test is conducted to see whether random effect model is more appropriate or fixed effect model.

² Other variables such as liquidity and age were excluded due to their high correlation coefficients with other independent variables.

VIF and TOL test were carried out using SPSS version 22. All other tests and estimated models were carried out using EViews version 9.

Results and Discussion:-

Descriptive Statistics:-

The descriptive statistics results showing mean, standard deviation, minimum and maximum values of public textile sector performance are presented in table (5). As shown in this table, the average value of return on assets has been (-1.2 percent) with standard deviation (3.2 percent) over the period of 2000 to 2016 for the textile firms in the sample. It could be inferred to the negative value of average that public textile firms are achieving loses in average over the period of study. The average value of total debt to total assets is (55.3 percent), which shows that total debt (total liabilities) of public textile firms in Syria exceeds the half of total assets on average.

Tangibility of assets has an average of 11 percent which imply that only 11 percent of total assets of these firms are tangible assets. This could imply that current assets represent a very high percentage of total assets of firms under study. In addition, it could be inferred according to the high standard deviation values of fixed assets growth and sales growth rates that these rates have been distinctly varying among public textile firms under study.

Table 5:-Descriptive Statistics

| | ROA | TD | FAG | TAN | SIZE | SG |
|------------------|--------|-------|--------|-------|--------|--------|
| Mean | -0.012 | 0.553 | 0.007 | 0.110 | 20.548 | 0.116 |
| Maximum | 0.067 | 0.921 | 0.080 | 0.575 | 22.285 | 2.596 |
| Minimum | -0.152 | 0.177 | -0.230 | 0.007 | 18.503 | -0.834 |
| Std. Dev. | 0.032 | 0.240 | 0.030 | 0.111 | 0.812 | 0.531 |

Note: ROA stands for return on assets; TD represents total debt to total assets ratio; FAG represents fixed assets growth rate; TAN represents tangibility of assets; Size represents the company size; SG represents sales growth rate. Source: processed data based on EViews V. 9

Correlation Analysis:-

Correlation analysis results are depicted in table (6). Correlation matrix gave us predictions about the association between ROA and other variables. It can be noticed that ROA has negative association with total debt, fixed assets growth, tangibility and Syria's crisis. While it has a positive association with both company size and sales growth.

In addition, correlation matrix enable us to see if the explanatory variables are highly correlated with one another, and thus to check for multi-collinearity problem. Such problem occurs when the correlation coefficients between explanatory variables are high, and most researchers appear to consider the value of 0.9 as the threshold beyond which this problem is likely to occur (Asteriou and Hall, 2007). It can be noticed that the highest degree of correlation (absolute value) exists between tangibility of assets and company size with value (0.70) which is below (0.9).

To be sure about not having a multi-collinearity problem, Variance Inflation Factor (VIF) and Tolerance (TOL) also have been used. If the value of VIF exceeded 10 and the value of TOL is close to zero, then the variable is said to be highly collinear (Gujarati and Porter, 2009). From table (7), it can be observed that all VIF values are below 10 and all TOL values are far from zero, hence there is no multi-collinearity problem for the study variables.

Table 6:-Pairwise correlation matrix

| | ROA | TD | FAG | TAN | SIZE | SG | CRISIS |
|---------------|-----------|-----------|-----------|-----------|----------|----------|----------|
| ROA | 1.000000 | | | | | | |
| TD | -0.290229 | 1.000000 | | | | | |
| FAG | -0.020937 | 0.167467 | 1.000000 | | | | |
| TAN | -0.021569 | -0.642473 | -0.061149 | 1.000000 | | | |
| SIZE | 0.235818 | -0.467252 | -0.126739 | 0.700836 | 1.000000 | | |
| SG | 0.357495 | 0.023778 | 0.038722 | -0.045307 | 0.270447 | 1.000000 | |
| CRISIS | -0.035668 | 0.145722 | -0.022519 | -0.144510 | 0.028334 | 0.083313 | 1.000000 |

Note: ROA stands for return on assets; TD represents total debt to total assets ratio; FAG represents fixed assets growth rate; TAN represents tangibility of assets; Size represents the company size; SG represents sales growth rate; CRISIS represent Syria's crisis of 2011.

Source: processed data based on EViews V. 9

Table 7:-Multi-collinearity test

| | VIF | TOL |
|---------------|-------|-------|
| TD | 1.764 | 0.567 |
| FAG | 1.057 | 0.946 |
| TAN | 3.002 | 0.333 |
| SIZE | 2.518 | 0.397 |
| SG | 1.233 | 0.811 |
| CRISIS | 1.064 | 0.940 |

Source: processed data based on SPSS V. 22

Note: TD represents total debt to total assets ratio; FAG represents fixed assets growth rate; TAN represents tangibility of assets; Size represents the company size; SG represents sales growth rate; CRISIS represent Syria's crisis of 2011.

Panel Unit Root Test:-

In the presence of non-stationarity, the results obtained from a regression are totally spurious and such regression is called spurious regression (Asteriou and Hall, 2007). Spurious regression or nonsense regression lead to misleading R^2 and t statistic, and the t statistics cannot be used for testing hypotheses about the parameters (Gujarati and Porter, 2009).

Panel unit root tests are used to test of stationarity (or non-stationarity) of variables under study. Several panel unit root tests have been used which are: Levin, Lin and Chu (2002), Im, Pesaran and Shin (2003), Fisher ADF and Fisher PP tests. The null hypothesis is that all series in the panel are non-stationary processes.

The results of panel unit root tests are displayed in table (8). These results report the rejection of the null hypothesis of all variables. Therefore, it can be inferred that all the variables under study are stationary variables at their level form. Thus, the regression results would not be spurious.

Table 8:-Panel Unit Root Tests

| Variables | Model | Levels | | | | Decision |
|-------------|------------|--------------------------|----------------------------|----------------|-----------------------------|---------------------|
| | | Levin, Lin and Chu (LLC) | Im, Pesaran and Shin (IPS) | ADF Chi-Square | Fisher PP Fisher Chi-Square | |
| ROA | τ_T | -4.94351*** | -2.32928*** | 27.7573** | 33.9920*** | Stationary at level |
| | τ_μ | -4.91478*** | -3.43816*** | 35.6225*** | 38.4247*** | |
| | τ | -4.42543*** | - | 48.2952*** | 48.7579*** | |
| TD | τ_T | -4.12549*** | -2.19324** | 27.5546** | 18.4488 | Stationary at level |
| | τ_μ | -2.06509** | -0.76124 | 16.4657 | 15.4351 | |
| | τ | 0.54594 | - | 6.74210 | 6.33870 | |
| FAG | τ_T | -6.11689*** | -5.01029*** | 47.4927*** | 60.0097*** | Stationary at level |
| | τ_μ | -7.59560*** | -6.67602*** | 64.2362*** | 72.1301*** | |
| | τ | -6.40722 | - | 57.9218*** | 67.3850*** | |
| TAN | τ_T | -5.10773*** | -3.36677*** | 40.8412*** | 25.5087** | Stationary at level |
| | τ_μ | -3.96207*** | -1.09371 | 20.6907 | 24.1662** | |
| | τ | -5.88598*** | - | 44.2102*** | 59.0992*** | |
| SIZE | τ_T | -0.05916 | -1.67253** | 27.8858** | 45.4343*** | Stationary at level |
| | τ_μ | -1.51394* | -2.90875*** | 36.9767*** | 41.6154*** | |
| | τ | 2.91638 | - | 6.55592 | 3.59771 | |
| SG | τ_T | -3.64422*** | -2.79460*** | 37.6653*** | 54.7722*** | Stationary at level |
| | τ_μ | -4.00754*** | -3.85391*** | 41.9053*** | 62.7260*** | |
| | τ | -6.16707*** | - | 57.8847*** | 78.8909*** | |

Note1: ROA stands for return on assets; TD represents total debt to total assets ratio; FAG represents fixed assets growth rate; TAN represents tangibility of assets; Size represents the company size; SG represents sales growth rate; CRISIS represent Syria's crisis of 2011.

Note2: τ_T represents the most general model with a drift and trend; τ_μ is the model with a drift and without trend; τ is the most restricted model without a drift and trend. *, **, *** denotes the rejection of null hypothesis in 10%, 5% and 1%, respectively. Lag length is based on Schwarz Information Criterion (SIC).

Panel Multiple Regression Analysis:-

Panel regression results are presented in table (8). Because there are two proxies of investing decisions (FAG and TAN), three models have been estimated, and thus we could see if the results would change. The probability values of F-statistics are less than the traditional significant levels, indicating that the overall models are statistically fit and statistically significant. R square values indicate that more than 65% of variation in dependent variable has been explained by variation in independent variables for models (1) and (2), while the R square value of model (3) is 27.2%.

Table (8) reports also the Hausman test results. The probability values for the test is less than the traditional significant levels for regressions (1) and (2), indicating that the random effects model is not appropriate and that the fixed effects specification is to be preferred for these models. While, in regression (3), the probability value is above the traditional significant levels, indicating that random effects model performs better than fixed effects model.

Present study also applied panel cross-section dependence test in table (8). The null hypothesis state that there is no cross-section dependence (correlation) in residuals. The probability values for all tests are above the traditional significant levels, indicating that the null hypothesis is accepted.

The results of estimated regressions indicate that debt is significant at 10% level and showing negative impact on financial performance (profitability) of public textile firms in Syria. The negative impact of debt on financial performance is steady with the results of pecking order theory that firms tend to borrow less because firms maintain the sufficient amount of funds internally. A lot of empirical studies had the same result such as Abbas et al. (2013), Azarmi (2014), Ahmad et al. (2015), Javed et al. (2015), Habib et al. (2016), and Ramachandran and Madhumathy (2016).

Firm's size is significant at 1% and has a positive impact on financial performance. It can be inferred from this result that firms with large size have higher financial performance as compared to small firms, because they benefit from economies of scale and obtain funds at lower costs. This positive impact of size on financial performance is consistence with other empirical studies such as Abbas et al. (2013), Ahmad et al. (2015), Javed et al. (2015), Habib et al. (2016).

Sales growth has a positive and significant effect on financial performance that is the increase in the sales of textile products will increase the profitability of firms. This positive impact is consistence with other studies such as Tauseef et al. (2015).

Tangibility is not significant at any level, and thus it does not play a significant role in firm's financial performance in public textile sector in Syria. This non-significant impact is consistence with other studies such as Abbas et al. (2013) and Azarmi (2014). In addition, fixed assets growth does not play a significant role in firm's financial performance. Syria's crisis also does has a significant effect on financial performance. This could be due to the fact that public textile sector in Syria was achieving losses before the crisis.

Table 8: -Panel Multiple Regression Results

| Independent Variables | Regression1 | Regression2 | Regression3 |
|---------------------------------------|---|---|---|
| TD | -0.44932 (0.0692)* [-1.840776] | -0.044332 (0.0716)* [-1.824689] | -0.038289 (0.0841)* [-1.746350] |
| FAG | -0.037043 (0.6006) [-0.525582] | -0.028117 (0.6830) [-0.409734] | |
| TAN | 0.031793 (0.5507) [0.599130] | | -0.023219 (0.6044) [-0.519864] |
| SIZE | 0.016767 (0.0030)*** [3.061402] | 0.017207 (0.0020)*** [3.182574] | 0.015820 (0.0031)*** [3.035744] |
| SG | 0.011337 (0.0263)** [2.262435] | 0.011161 (0.0278)** [2.239651] | 0.011471 (0.0199)** [2.369681] |
| CRISIS | 0.006173 (2.2745) [1.100001] | 0.004627 (0.3540) [0.932078] | 0.003239 (0.5335) [0.625043] |
| C | -0.336735 (0.0037)*** [-2.987427] | -0.342218 (0.0030)*** [-3.057825] | -0.315594 (0.0046)*** [-2.908472] |
| Model Summary: | | | |
| R ² | 65.22 | 65.0696 | 27.1972 |
| F-statistic | 12.97024 | 14.22528 | 6.873747 |
| Prob. (F-statistic) | 0.000000 | 0.000000 | 0.000017 |
| Durbin-Watson Stat. | 1.474065 | 1.465781 | 1.687696 |
| Hausman Test: | | | |
| Chi-Sq. Statistic | 75.333071 | 29.539951 | 3.813915 |
| Prob. | 0.0000 | 0.0000 | 0.5765 |
| Model Selection | Fixed Effects | Fixed Effects | Random Effects |
| Cross-Section Dependence Test: | | | |
| Breusch-Pagan LM (Prob.) | 23.83165 (0.3013) | 24.39337 (0.2744) | 25.60133 (0.2221) |
| Peasaran scaled LM (Prob.) | -0.643190 (0.5201) | -0.556515 (0.5779) | -0.370122 (0.7113) |
| Bias-corrected scaled LM (Prob.) | -0.876523 (0.3807) | -0.789848 (0.4296) | - |
| Pesaran CD (Prob.) | 0.049044 (0.9609) | 0.115241 (0.9083) | 0.242441 (0.8084) |

Source: Processed data based on EViews V. 9

Note: TD represents total debt to total assets ratio; FAG represents fixed assets growth rate; TAN represents tangibility of assets; Size represents the company size; SG represents sales growth rate; CRISIS represent Syria's crisis of 2011.

Conclusion:-

This study aimed to investigate the determinants of financial performance of public textile sector in Syria. The analysis of present study is based on unbalanced panel data of public textile firms operating in Syria. In this respect, dataset of 7 public textile firms operating in Syria for the period 2000-2016 is used. The dependent variable is the financial performance that is measured by Return on Assets (ROA). While the independent variables were: total debt to total assets ratio, fixed assets growth rate, tangibility of assets, company size, sales growth, and Syria's crisis.

The results of panel multiple regression analysis showed that profitability of public textile sector of Syria is affected by debt financing, company size and sales growth. The debt financing has a negative and significant effect, while both company size and sales growth have a positive and significant effect on profitability of public textile firms

operating in Syria. On the other hand, tangibility of assets, fixed assets growth and Syria's crisis do not play significant role in determining profitability of these firms.

The findings of this study could enable the managers of public textile sector in Syria to use their financing and investing decisions more efficiently to enhance the profitability of public textile firms. Precisely, the researchers recommend the management of public textile companies to employ minimal debt level and increase their sales of textile products in order to enhance their financial performance by benefiting from economies of scale as they are large companies. This requires a good, qualified and responsible management to ensure achieving better financial performance.

The main limitation of present study is that it is limited and applicable to textile industry of Syria only, and it is not applicable to financial sector that its capital structure different from non-financial sector.

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