# Do PESTLE Factors Impact the Development of Non-oil Manufacturing Companies in Oman?

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**ABSTRACT**

One of the top priorities of Oman Industrial strategy 2040 is to have economic diversification and activate the role played by manufacturing sector in Oman. As the Oman public finances depend entirely on oil revenues, the development of Oman industrial sector is a key pillar of its long-term development strategy. So the present study aimed to identify and analyse the impact of PESTLE factors on the development of non-oil manufacturing companies in Oman and to suggest suitable measures to develop manufacturing companies in Oman. The researcher used both primary and secondary data for the purpose of the study. The primary data were collected through a structured questionnaire from the sample of 52 manufacturing companies of different sectors in Oman. Further, the researcher had preliminary discussions with the officials of the Department of Commerce, Industry, and Investment Promotion. The collected data were analysed with the help of appropriate statistical tools such as percentage, ANOVA, Independent Z-test, correlation, Regression, and Partial Least Square based Structure Equation Modelling. The results of the study showed that there is a positive relationship between PESTLE factors and the development of non-oil manufacturing companies in Oman.

**Keywords:** Non-Oil, Manufacturing companies, Economic growth, PESTLE, Entrepreneurship
**JEL Classifications:** B22, H25, L25, L60, M13

## 1. INTRODUCTION

Typically, a country's economic growth is driven by several industries or in some instances through a single industry that spurs the economy to actively flitting forward. In Sultanate of Oman, the growth in Oman's economy has been powered by the discovery of the region's most plentiful natural resource-oil thus the consequential development and growth in Oman's economy was a result of oil exports that have steered a rise in government revenue by approximately 68%-85% and hence an increase in imports which in turn result to enhancing the overall standard living of Omanis' (Fanack, 2021). As per the Economic Complexity Index in 2019, Oman has listed at 83 rank as one of the most complex economy in the world with aggregation of export of almost \$37.5B, which qualified it at rank 57 exporter in the world, however, the exports have declined by almost -\$10.6B as compared to \$48.1B in 2014 (Datawheel, 2019); this shrank was

because of the depletion in Oman's oil reserves; hence the country is looking to diversifying its economy by adopting the approach of privatization, diversification, and industrialization to offset the predicted decreases in revenue from oil exports. The country has recognized the vulnerability that the depletion of oil would have on the broader financial system consequently it striving to adopt various sources of national revenues. Therefore, Oman's economic development strategies which dubbed "Tanfeedh" (Arabic for "execution"), have focused on five critical areas: Manufacturing, agriculture and fisheries, energy and mining, transportation and logistics, and tourism and these five sectors were selected due to the abundantly of the resources of these activities in Oman (Times of Oman, 2020). The steps paid off as National Center for Statistics and Information (NCSI) reported that Oman achieved an increase in non-oil revenue by almost 37.4% in 2020 as compared to 2019. Moreover, the report also states that in 2020, non-oil sources of income as contributing to 28% of total revenue, and it is anticipated

to jump to 35% in 2021, and then stable at that level until 2024 (Times of Oman, 2020).

Oman's economy is ranked 71st in the 2021 Index for economic freedom, with a score of 64.6. Its standard rating has elevated by 1.0 point, owing primarily to a rise in enlarge in economic freedom. Oman is ranked 7th in the Middle East and North Africa region, with a score that is higher than the regional and global averages. The total tax burden is 2.6% of gross domestic product. Over the last 3 years, government spending has averaged 45.0% of total output (GDP), with budget deficits averaging 9.6% of GDP, and the public debt reaches 62.6% of GDP (Heritage Foundation, 2021). Therefore, the Sultanate is seeking to reduce the oil's share of GDP to 16% in 2030 and reach 8.4% by 2040 (Times News Service, 2020). While the non-oil share of GDP targets reaching 91.6% in 2040 by focusing on the manufacturing industries sectors: projects based on agriculture and fisheries, and mining and mineral products, in addition to service, cultural, logistical, and educational activities and sectors that support and complement them (Times News Service, 2020). Thus, the present study aiming to support the non-oil manufacturing in Oman by identifying and analyzing the factors that are hindering the development of manufacturing companies other than oil products in the Sultanate of Oman.

## 1.1. Statement of the Problem

Oman economy is a middle-income economy, from 1967 they exported oil. Since then the economy has rapidly expanded, relinquishing its traditional activities of agriculture and fisheries. Nowadays most of the country head for diversity in their economic, and decrease import and increase export. Especially, manufacturing sectors have huge impact on the economic growth. Previous researches have not studied the impact of the Political, Economic, Social, Technological, Environmental, and Legal factors on the survival and success of manufacturing companies in Oman. Therefore, we select this research, so that we can find out the PESTLE factors that influence the manufacturing sector development in Oman, to boost the economy and to create more job opportunities in future.

## 1.2. Research Questions

- How PESTLE factors affect the development of non-oil manufacturing companies in Oman?

## 1.3. Objectives of the Study

- To analyze the economic profile of manufacturing companies in Oman
- To Identify and analyze the PESTLE factors that impact the development of Manufacturing companies in Oman
- To suggest suitable measures to develop the non-oil manufacturing companies in Oman.

## 1.4. Proposed Research Model (Figure 1)

Based on the gap identified by analyzing the previous studies, the researcher has adopted the following research model for the purpose of the study.

## 1.5. Hypotheses of the Study

The following hypotheses are developed based on the objectives of the study



**Figure 1:** Research model
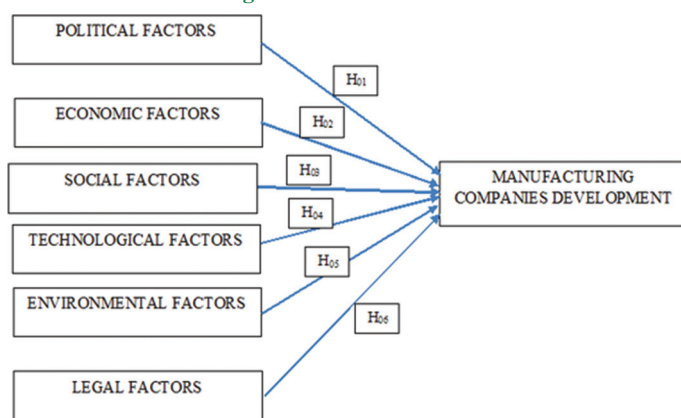
$H_{01}$: There is no significant effect of political factors in the development of non-oil manufacturing companies in Oman.

$H_{02}$: There is no significant effect of economic factors in the development of non-oil manufacturing companies in Oman.

$H_{03}$: There is no significant effect of social factors in the development of non-oil manufacturing companies in Oman.

$H_{04}$: There is no significant effect of technical factors in the development of non-oil manufacturing companies in Oman.

$H_{05}$: There is no significant effect of environment factors in the development of non-oil manufacturing companies in Oman.

$H_{06}$: There is no significant effect of legal factors in the development of non-oil manufacturing companies in Oman.

## 2. LITERATURE REVIEW

Shayah (2015) praised the role of non-oil Exports in the Economic diversification, and according to Amah and Onoh (2013), not diversifying the economy away from oil is dangerous given that in addition to being an exhaustible resource, oil has a volatile price pattern, Ogunbiyi and Abina (2019) argued the significance of diversification of unexploited non-oil resources in the country such as manufacturing, agriculture, mining, etc. Onoh et al. (2018) highlighted that the non-oil private sector in many of OPEC countries remains relative small contributor to the GDP, as they highly recommended that these countries should foster more inclusive growth by growing their private sector to drive their economy. According to Roxas et al. (2007), there are three dimensions that determine productive entrepreneurship which are the economic, the political, and the socio-cultural environments. In the same view, Krasniqi. (2007) found that the growth of SMEs is reduced by the presence of business environmental barriers such as tax burden, unfair competition, and inadequate financing. In same view, Notta et al. (2018), pointed that the companies facing high interest rates and loans made low profits and reduce the profitability and market share of the company. Likewise, Olaleye et al. (2016) found some strong positive linear relationships between reduced company income tax incentives and foreign direct investment. Moreover, Hasanov et al. (2018) showed that fiscal policy has a statistically significant positive impact on the non-oil sector both in the long and short-run and the research opened the way for further investigation of this topic for the oil-exporting economies in the future. Also, Kumar and Kumar. (2017) stated

GST would impact the overall aspect of the business. Additionally, Dauda and Ismaila. (2013), argued the significance of focusing on the environment and the newest technologies for manufacturing. In Ljiieh (2014) the investment in the non-oil sector (Industrial/Manufacturing, Agricultural, and Solid Minerals Production) can lead to economic growth and development because of its potential impact on generating additional revenue, reducing unemployment and poverty when the government makes the right policy decisions on institutions, research, trade, and education for technological adaptations. In the same way, Nwanne (2014) as he investigated the relationship between diversification of non-oil export products and economic growth he was of the view that the government should enforce non-oil export policies towards resuscitating the failing non-oil export industry, he revealed that the policies on non-oil products during the period in Nigerian do not sufficiently encourage non-oil export, thus reducing their contributions to growth. Likewise, Unegbu and Okanlawon. (2015) agreed that the government should embark on fiscal Cashless policies in order to stimulate further spill-off effects of attracting enormous Non-Oil Sectors of Foreign Direct Investments into the region. Furthermore, Ekperiware. (2011), examined the impact of oil and non-oil FDI and found that NONOILFDI is more statistically significant and has a more positive effect on the Nigerian economy on the average compared to OILFDI, and advise government and all stakeholders to encourage FDI into the non-oil sectors. Additionally, Olurankinse and Bayo (2012) analysed the impact of non-oil export on the growth of the Nigerian economy and recommended the need to increase production in both agricultural and manufacturing sectors to ensure product availability for both local and export purposes. Thus, Ude and Agodi (2014) revealed that non-oil firms will have the ability to contribute and diversify the economy. Despite the importance of oil and gas in the region and the state's endeavor to put in place development plans aimed at economic diversification and activating the role of the industrial sector, it lacks studies in this regard. Hasanov et al. (2018) investigated the non-oil sector effects of fiscal policy suggested for further investigation of this topic for the oil exporting economies in the future. And that the existing studies are mostly in foreign countries, and they are different in nature from the state in terms of area, resources, and political, economic and social activities. Also, there is no comprehensive and specialized study stating the causes and factors affecting countries 'retreat from the interest in the industrial sector and focus on the non-oil sector to promote economic growth. Therefore, this research aimed to address how the PESTLE factors impact on the development of non-oil manufacturing companies in Oman.

## 3. RESEARCH METHODOLOGY

It is descriptive because it attempts to answer the descriptive questions of the research study and eventually identify and describe the factors that contribute to the development of non-oil manufacturing companies in Oman. The aim of this study is to make inference about the PESTLE factors that impact on the development of Non-Oil manufacturing companies in Oman, from the sample of Non-Oil manufacturing companies in Oman. Probability sampling applied used for sample selection. Consequently, the respondents for this study are heterogeneous

therefore the stratified random sampling adopted. In pursuance of the objectives and hypotheses of the study, the study used both primary data and secondary data. The primary data for the study have been collected from the sample 52 non-oil manufacturing companies with the help of a structured questionnaire. Further, the researcher had preliminary discussions with the officials of the Department of Commerce, Industry, and Investment Promotion. Although the nucleus of the study depends on primary data, the study like any other research work uses some secondary data for better understanding of the study area. The secondary data were collected from the published as well as unpublished reports from the Department of Commerce, Industry, and Investment Promotion, also drawn from the research reports, various books, journals, magazines and websites of Government Namely National Centre for statistics and information etc. these data contributed toward the formation of background information, analysis and conclusion. This study analysed by two variables namely the independent variables are business background, firm information and PESTLE factors whereas the dependent variable is the Business success of Non-oil manufacturing companies in Oman. The collected data analysed through SPSS Version 22 for Windows has been used for following statistical analysis: descriptive statistics such as standard deviation, Z-test, ANOVA, Inter correlation, regression etc. and SmartPLS Version 3.0 has been used for developing and validating measurement and structural models of the study (Table 1 and 2).

## 4. RESULTS AND ANALYSIS

Firstly, percentage analysis was used to analyse the Firm information and Personal Background information of the non-oil manufacturing companies. In Type of Ownership, a majority of respondents are into Sole-proprietorship business and 47% of respondents. The majority of respondent are running small scale business which constitutes 49% of them. The analysis reveals that the majority of the companies are involved in food product as the nature of product in business which constitutes 35%. Based on the above Classification related to present age of concern, majority 32% of the respondents are running 5-10 years business. Majority, 63% of respondents have employed less than 50 employees in their business. Majority 44% of respondents are belongs to the age group of 36-45 years. Based on the classification of Gender

**Table 1: Number of affiliates to oman chamber of commerce and industry by governorates until the end of 2020**

| S. No. | Governorate | Number of Affiliates |
|---|---|---|
| 1 | Muscat | 127951 |
| 2 | Dhofar | 56374 |
| 3 | Ad-Dakhiliyah | 29957 |
| 4 | Ad-Dhahirah | 13647 |
| 5 | Al-Wusta | 5989 |
| 6 | Al-Batinah North | 58435 |
| 7 | Al-Batinah South | 25351 |
| 8 | Ash-Sharqiyah North | 25673 |
| 9 | Ash-Sharqiyah South | 26315 |
| 10 | Al-Buraymi | 12880 |
| 11 | Musandam | 3065 |
| | TOTAL | 385637 |

Source: Department for the Department of Commerce, Industry, and Investment Promotion

majority 93% of respondents are male. In educational qualification majority of respondents are completed the post-graduation which constitutes 30%. Under the classification marital status the majority of the respondents are married which constitutes 81%. Majority of 84 % of the respondents are having previous work experience and among 84% of respondents 24% of them are having 6-10 years of previous working experience. Majority of 51% of respondents are having relevant field experience of their current business. Majority of 58% of respondents are not received any formal training before starting their business. Majority of 32% of respondents have invested less than 50,000 as their startup capital.

## 4.1. Difference between the Gender towards Various Dimensions of the Respondents

The Table 3 shows the difference between the gender of entrepreneurs towards the various dimensions of the respondents namely Political factors, Economic factors, Social factors, Technological factors, Environmental factors, Legal factors and Business Success.

The Table 3 shows whether there exists any difference between Genders of respondents with various dimensions. The Z value −0.110, −0.2.12, 2.63, 2.12 with mean score of 43.94, 27.38, 22.98,

53.30 for Male entrepreneurs and mean score of 44.10, 17.54, 12.93, 23.36 for Female entrepreneurs are significant. Therefore, it can be concluded that Business success, Political Factors, Environmental Factors, and Economic Factors have significant difference in opinion among the respondents.

## 4.2. Impact of Profile of Respondents on their Business Success

Since the profile of the respondents may have its own influence on Business success and its determinants among the respondents, there has been made an attempt to examine it with the help of logistics regression analysis. The fitted regression model is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 +. + b_9X_9 + e$$

Y-Score on the level of career success and its determinants
$X_1$-Gender of the respondents
$X_2$-Marital Status of the respondents
$X_3$-Educational Qualification of the respondents
$X_4$-Entrepreneurial training of the respondents
$X_5$-Age of the respondents
$b_1, b_2, b_3$-Regression co-efficient of independent variables
e-error term and
a-constant

The importance of profile variables on the level of business success among the groups of respondents like small, medium and large scale has been examined separately. The results are shown in Table 4.

The significantly influencing profile variables on the Business success among the Small Scale, Medium scale and Large scale entrepreneurs are Gender, Entrepreneurial training and educational qualification since their respective regression co-efficients are significant at five per cent level. The significantly influencing profile variables on the level of Business success among the Small Scale, Medium scale and Large scale of the non-oil manufacturing companies. The rate of impact of profile variables influencing on the Business success among the Small Scale, Medium scale and Large scale of the non-oil manufacturing companies.

## 4.3. Analyzing the Impact of PESTLE Factors in Development of Business Success of Non-oil Manufacturing Companies

A Partial Least Square (PLS) model is usually analyzed and interpreted into two stages sequentially. First is the assessment and

**Table 2: Number of manufacturing companies in oman**

| S. No | Categories | Number of companies | Percentage |
|-------|-----------|---------------------|------------|
| 1 | Computer & Electronics | 128 | 1 |
| 2 | Electrical Equipment, Appliances, and Components | 351 | 1 |
| 3 | Food, Beverage, and Tobacco | 4,434 | 17 |
| 4 | Furniture | 54 | 0 |
| 5 | Miscellaneous Manufacturing | 377 | 2 |
| 6 | Nonmetallic Mineral | 186 | 1 |
| 7 | Petroleum, Coal, Chemicals, Plastics, and Rubber | 1,320 | 5 |
| 8 | Primary metal, Fabricated metal, and Machhinery | 9,741 | 38 |
| 9 | Textiles, Leather, and Apparel | 5,664 | 22 |
| 10 | Transportation | 154 | 1 |
| 11 | Wood, Paper, and Printing | 3,044 | 12 |
| | TOTAL | 25,453 | 100 |

Source: Department for the Department of Commerce, Industry, and Investment Promotion

**Table 3: Difference of gender towards various dimensions of the respondents**

| S. No | Dimensions | Male | | Female | | Z Value | Sig Value | Decision |
|-------|-----------|------|------|--------|------|---------|-----------|----------|
| | | Mean | S.D | Mean | S.D | | | |
| 1 | PF | 43.94 | 14.757 | 44.10 | 16.051 | −0.110 | 0.026 | S |
| 2 | EF | 27.38 | 4.700 | 17.54 | 4.723 | 2.12 | 0.040 | S |
| 3 | SF | 13.38 | 3.675 | 13.38 | 3.681 | 0.000 | 0.490 | NS |
| 4 | TF | 14.26 | 4.378 | 14.18 | 4.301 | 0.185 | 0.841 | NS |
| 5 | EF | 22.98 | 3.932 | 12.93 | 3.721 | 2.638 | 0.008 | S |
| 6 | LF | 13.63 | 3.806 | 13.91 | 3.624 | -0.842 | 0.297 | NS |
| 7 | BS | 53.30 | 7.1226 | 23.36 | 4.956 | 2.127 | 0.033 | S |

PF: Political factors, EF: Economic factors, SF: Social factors, TF: Technological factors, EF: Environmental factors, LF: Legal factors, BS: Business success. Source: Primary Data; S: Significant; NS: Not Significant

refinement of adequacy of the measurement model and followed by the assessment and evaluation of the structural model. This is to ensure the reliability and validity of the measures prior to the attempt in making and drawing the conclusion on the structural model.

Stage: 1 Reliability and Validity measurement between PESTLE factors and Business success

Measurement model evaluation is aimed to evaluate the consistency and validity of the dimensions. Consistency evaluations are through individual indicators and construct reliability tests. The consistency evaluation is constructed reliability where it is evaluated by two measures, that is, Cronbach's alpha and Composite Reliability (CR). Convergent validity is carried out by Average Variance Extracted (AVE) test on variables.

The Table 5 reveals that the composite reliability, Cronbach alpha, AVE, loadings, and indicator loading of the Political, Economic, Social, Technological, Social, Environmental, and legal, all the obtained values were greater than the threshold value 0.4 (Wold, 1998). Hence they are acceptable. Squaring of the indicator loadings provide the indicator reliability values which are shown in the fourth column of Table 5. Although indicator reliability value of 0.7 or higher is preferred, values higher than 0.4 are acceptable (Clarck and Watson, 1995). As all the indicator loadings in the table are greater than the threshold value of 0.4 the indicators of the constructs are accepted. The Cronbach's alpha scores for all the constructs (for Political 0.762, Economic 0.783 Social 0.732, Technological 0.793, Social 0.772, Environmental 0.713, legal 0.752 Business Success 0.815, Business Performance 0.712) which are shown in the above table are above 0.7 which indicate that internal consistencies of the constructs are reliable. The composite reliability values for Political 0.768, Economic 0.758 Social 0.748, Technological 0.738, Social 0.728, Environmental 0.718, legal 0.752, Business Success 0.728, Business Performance 0.718) are shown in column 6 of the table are greater than the threshold value of 0.7. Therefore, the set of indicators measuring the latent constructs is ensured. The above three estimations are very well greater than the threshold values. Hence it is confirmed that the constructs of the measurement model are reliable. Validity of constructs of Measurement Model 1-For validity assessment convergent validity and discriminant validity are checked.

**Table 4: Impact of profile of respondents on their business success**

| Sl.no | Variables | Small scale | Medium scale | Large scale |
|-------|-----------|-------------|--------------|-------------|
| 1. | Gender | 0.0044* | 0.0244* | 0.0996 |
| 2. | Marital status | 0.0894 | 0.0996 | 0.0894 |
| 3. | Educational qualification | 0.0241* | 0.0562* | 0.0894 |
| 4. | Entrepreneurial training | 0.0249* | 0.0122* | 0.0062* |
| 5. | Age | 0.1842 | 0.0600 | 0.1842 |
| | Constant | 0.3989 | 0.4183 | 0.4183 |
| | $R^2$ | 0.6542 | 0.6739 | 0.6297 |

Source: Primary data. *Significant at five per cent level

### 4.3.1. Convergent validity of measurement model
The computed AVE values of each construct are shown in the seventh column of Table 5 are Political (AVE = 0.698) Economic (AVE = 0.817) Social (AVE = 0.798), Technological (AVE = 0.717) Environmental (AVE = 0.678), legal (AVE = 0.877) Business Success (AVE = 0.678), Business Performance (AVE = 0.788). As the computed AVE values are >0.5, the convergent validity of the constructs in the measurement model is confirmed.

### 4.3.2. Discriminant validity of measurement model
In the discriminant validity of the measurement model is shown below where all the factors such as Political, Economic, Social, Technological, Social, Environmental, and legal are validated.

The discriminant validity is estimated by taking the square root values of AVE for each constructs of Business success, Political, Economic, Social, Technological, Social, Environmental, and legal factors. All the correlation values between the constructs are shown in Table 6. The corresponding square root of AVE value of each construct Business success 0.900, Political 0.883, Environmental factors 0.856, Economic factors 0.989, Social factors 0.873, Technological factors 0.865, Legal factors 0.894 is given in the diagonal of the table. The square root of the AVE values, shown on the diagonal for each construct Business success, Political, Economic, Social, Technological, Social, Environmental, and legal factors, in Table 6 are higher than the correlated values between the two constructs of interest. To strengthen further the discriminant validity for the constructs of measurement model it is proved based on the Cross loading values. Hence it is inferred that discriminant validity of the constructs of the measurement model is confirmed. This implies that the measurement model for all the factors are reliable and valid.

Path analysis and STRUCTURAL Model development using smart PLS.

Stage: 2 Model FIT for Relationship between pestle factors and business success of non-oil manufacturing companies.

Structural model measures relationship between PESTLE factors and Business Success of Non-Oil manufacturing companies latent variables through evaluating $R^2$ value, that is, coefficient of determination. $R^2$ corresponds to the degree of explained variance of endogenous latent variables.

After assessing the reliability and validity of the measurement model, the next part of the PLS-SEM path model is to assess the validity of the structural model. The structural model is tested to study the complex inter relationships among the constructs of Political, Economic, Social, Technological, Social, Environmental, and legal are factors (exogenous constructs) and Business success (endogenous constructs). In PLS the strength of relationship is tested and analyzed through the values of $R^2$, t-statistics and standardized path (beta coefficient).

### Obtained Coefficient of Determination ($R^2$)
The coefficient of determination ($R^2$) is a measure of the proportion of an endogenous (dependent) constructs variance that is explained by its predictors (independent) constructs. It also measures the

**Table 5: Results summary of the measurement model of PESTLE factors on Business Success**

| Construct | Indicators | Loadings | Indicator Reliability | Cronbach's Alpha | Composite Reliability | AVE |
|---|---|---|---|---|---|---|
| Political factors | PF1 | 0.865 | 0.854 | 0.783 | 0.768 | 0.698 |
| | PF2 | 0.852 | 0.794 | | | |
| | PF3 | 0.763 | 0.872 | | | |
| | PF4 | 0.749 | 0.883 | | | |
| | PF5 | 0.744 | 0.885 | | | |
| | PF6 | 0.896 | 0.560 | | | |
| | PF7 | 0.721 | 0.784 | | | |
| | PF8 | 0.787 | 0.954 | | | |
| | PF9 | 0.787 | 0.921 | | | |
| Economic factors | EF1 | 0.683 | 0.913 | 0.762 | 0.758 | 0.817 |
| | EF2 | 0.751 | 0.856 | | | |
| | EF3 | 0.786 | 0.877 | | | |
| | EF4 | 0.576 | 0.943 | | | |
| | EF5 | 0.751 | 0.965 | | | |
| | EF6 | 0.888 | 0.977 | | | |
| | EF7 | 0.711 | 0.758 | | | |
| | EF8 | 0.703 | 0.738 | | | |
| | EF9 | 0.921 | 0.898 | | | |
| | EF10 | 0.857 | 0.725 | | | |
| | EF11 | 0.811 | 0.876 | | | |
| | EF12 | 0.718 | 0.972 | | | |
| | EF13 | 0.603 | 0.879 | | | |
| Social factors | SF1 | 0.865 | 0.789 | 0.732 | 0.748 | 0.798 |
| | SF2 | 0.852 | 0.523 | | | |
| | SF3 | 0.763 | 0.781 | | | |
| | SF4 | 0.749 | 0.544 | | | |
| | SF5 | 0.744 | 0.815 | | | |
| | SF6 | 0.896 | 0.888 | | | |
| | SF7 | 0.721 | 0.589 | | | |
| | SF8 | 0.787 | 0.986 | | | |
| | SF9 | 0.787 | 0.912 | | | |
| | SF10 | 0.762 | 0.641 | | | |
| | SF11 | 0.719 | 0.697 | | | |
| Technological factors | TF1 | 0.583 | 0.770 | 0.772 | 0.738 | 0.717 |
| | TF2 | 0.751 | 0.589 | | | |
| | TF3 | 0.686 | 0.739 | | | |
| | TF4 | 0.676 | 0.780 | | | |
| | TF5 | 0.851 | 0.766 | | | |
| | TF6 | 0.818 | 0.834 | | | |
| | TF7 | 0.611 | 0.536 | | | |
| | TF8 | 0.803 | 0.734 | | | |
| | TF9 | 0.721 | 0.756 | | | |
| | TF10 | 0.757 | 0.976 | | | |
| | TF11 | 0.711 | 0.991 | | | |
| | TF12 | 0.818 | 0.813 | | | |
| Environmental factors | ENVF1 | 0.865 | 0.823 | 0.713 | 0.728 | 0.678 |
| | ENVF2 | 0.852 | 0.932 | | | |
| | ENVF3 | 0.763 | 0.955 | | | |
| | ENVF4 | 0.749 | 0.931 | | | |
| | ENVF5 | 0.744 | 0.693 | | | |
| | ENVF6 | 0.896 | 0.808 | | | |
| Legal factors | LF1 | 0.583 | 0.793 | 0.752 | 0.718 | 0.877 |
| | LF2 | 0.751 | 0.956 | | | |
| | LF3 | 0.686 | 0.855 | | | |
| | LF4 | 0.676 | 0.852 | | | |
| | LF5 | 0.851 | 0.625 | | | |
| | LF6 | 0.818 | 0.881 | | | |
| | LF7 | 0.611 | 0.597 | | | |
| | LF8 | 0.803 | 0.828 | | | |
| | LF9 | 0.721 | 0.966 | | | |
| | LF10 | 0.757 | 0.506 | | | |
| | LF11 | 0.711 | 0.867 | | | |
| | LF12 | 0.818 | 0.725 | | | |

*(Contd...)*

**Table 5: (Continued)**

| Construct | Indicators | Loadings | Indicator Reliability | Cronbach's Alpha | Composite Reliability | AVE |
|---|---|---|---|---|---|---|
| Business success | BS1 | 0.865 | 0.954 | 0.815 | 0.728 | 0.678 |
| | BS2 | 0.852 | 0.923 | | | |
| | BS3 | 0.763 | 0.879 | | | |
| | BS4 | 0.749 | 0.591 | | | |
| | BS5 | 0.744 | 0.964 | | | |
| | BS6 | 0.896 | 0.947 | | | |
| | BS7 | 0.896 | 0.813 | | | |
| Business performance | BP1 | 0.583 | 0.978 | 0.712 | 0.718 | 0.877 |
| | BP 2 | 0.751 | 0.851 | | | |
| | BP 3 | 0.686 | 0.608 | | | |
| | BP 4 | 0.676 | 0.646 | | | |
| | BP 5 | 0.851 | 0.636 | | | |
| | BP 6 | 0.818 | 0.758 | | | |
| | BP 7 | 0.611 | 0.945 | | | |
| | BP 8 | 0.803 | 0.951 | | | |
| | BP 9 | 0.721 | 0.968 | | | |
| | BP 10 | 0.757 | 0.934 | | | |

Source: Primary data

**Table 6: Discriminant validity for the constructs of measurement model**

| Variables | PF | EF | SF | TF | EF | LF | BS |
|---|---|---|---|---|---|---|---|
| PF | 0.883 | | | | | | |
| EF | 0.978 | 0.989 | | | | | |
| SF | 0.775 | 0.762 | 0.873 | | | | |
| TF | 0.726 | 0.734 | 0.748 | 0.865 | | | |
| ENTF | 0.739 | 0.759 | 0.789 | 0.733 | 0.856 | | |
| LF | −0.593 | −0.589 | −0.602 | −0.390 | −0.610 | 0.894 | |
| BS | 0.739 | 0.851 | 0.739 | 0.851 | 0.532 | 0.633 | 0.900 |

PF: Political factors, EF: Economic factors, SF: Social factors, TF: Technological factors, ENTF: Environmental factors, LF: Legal factors, BS: Business Success. *Square root of AVE values are shown in bold diagonally, **values shown in the other boxes are correlation matrix value

**Table 7: Obtained coefficients of determination ($R^2$)**

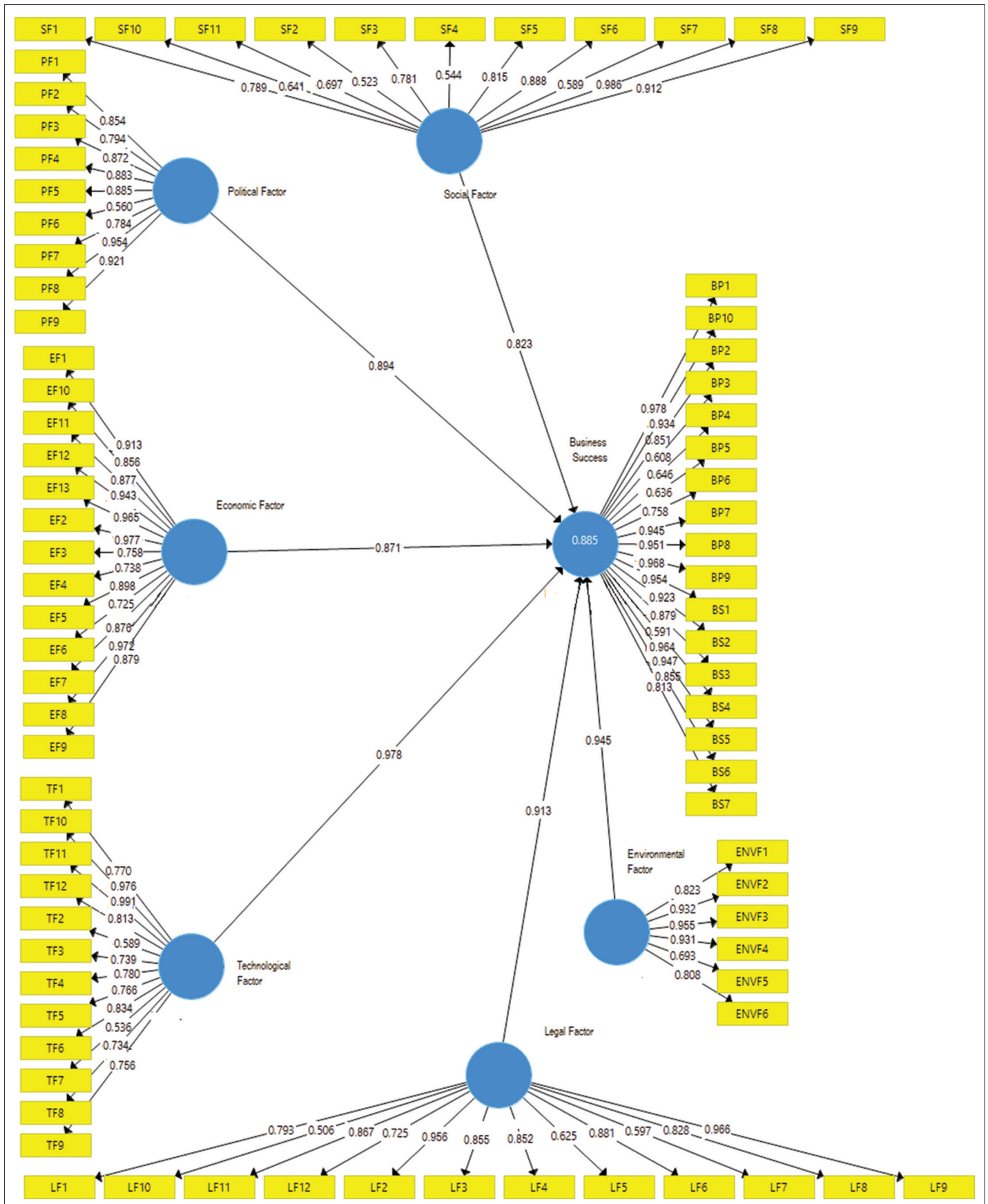| Variables | R Square | R value |
|---|---|---|
| Pestle factors | 0.877 | |
| Business success | | 0.471 |

Source: Primary data

factors and Business success is statistically significant, PESTLE factors directly impact the development of non-oil manufacturing companies in Oman (Table 8).

## 5. DISCUSSIONS

It was also found that

- Lack of special industrial zones and infrastructure facilities in industrial zones is one of the major challenge faced by the young people and investors to conduct the manufacturing business in Oman.
- It was found that the local manufacturing companies are facing intense competition from the Gulf market.
- Difficulty in obtaining financial support: Most of those wishing to start a manufacturing company suffer from difficulties and pressures from banks, where the banks ask the companies to pay off his debts before reaching the break even, so there is a fear about starting this type of business.
- Lack of innovation and the lack of continuous efforts by Omani companies in the area of interest in improving the quality of products.
- It was also found that lack of clarity and consistency in the policies and decisions issued by the concerned authorities. Each party issues its own laws and there is no facilitation or law on which manufacturers can rely to keep pace with development. Frequent issue of new additions and changes affect the functioning of the plans of manufacturers, one of the major obstacle faced by manufacturers in Oman,
- Instability in labour costs and the frequent change of the minimum wage for workers, as well as the high costs

predictive accuracy of the model. The obtained $R^2$ value of the constructs of the structural model is presented in Table 7.

The $R^2$ in the Table 7 and Figure 2 explains that 87.7% of impact in Business Success is explained by PESTLE Factors. The R values for PESTLE Factors and for business success which indicates that 0.471 scores shows the correlation value, between PESTLE factors and Business Success.

The $R^2$ in the Table 7, Figure 3a and b explains that 77.6% of impact in Business success is explained by PESTLE factors. The R value 0.877 indicates the correlation between PESTLE Factors and business success is explained in the Figure 2.

Hypotheses testing through PLS-SEM bootstrapping

The following null hypotheses tested for the constructs and the estimation of the bootstrap technique is presented.

By performing the bootstrapping procedure in Smart PLS, t-values are generated for the model. The setting for the complete bootstrapping procedure included 500 subsamples, and a two-tailed t test is conducted at $\alpha = 0.05$ significant level.

Null hypothesis ($H_01$) is that PESTLE factors impact on Business success. The Structural path coefficient value between the PESTLE

**Figure 2:** Smart PLS-PATH analysis results

**Figure 3:** (a) Results of the path model after boot strapping-pestle factors impact on business success, (b) Results of the path model after boot strapping-pestle factors impact on business success
The coefficient of determination (R²) is a measure of the proportion of an endogenous.
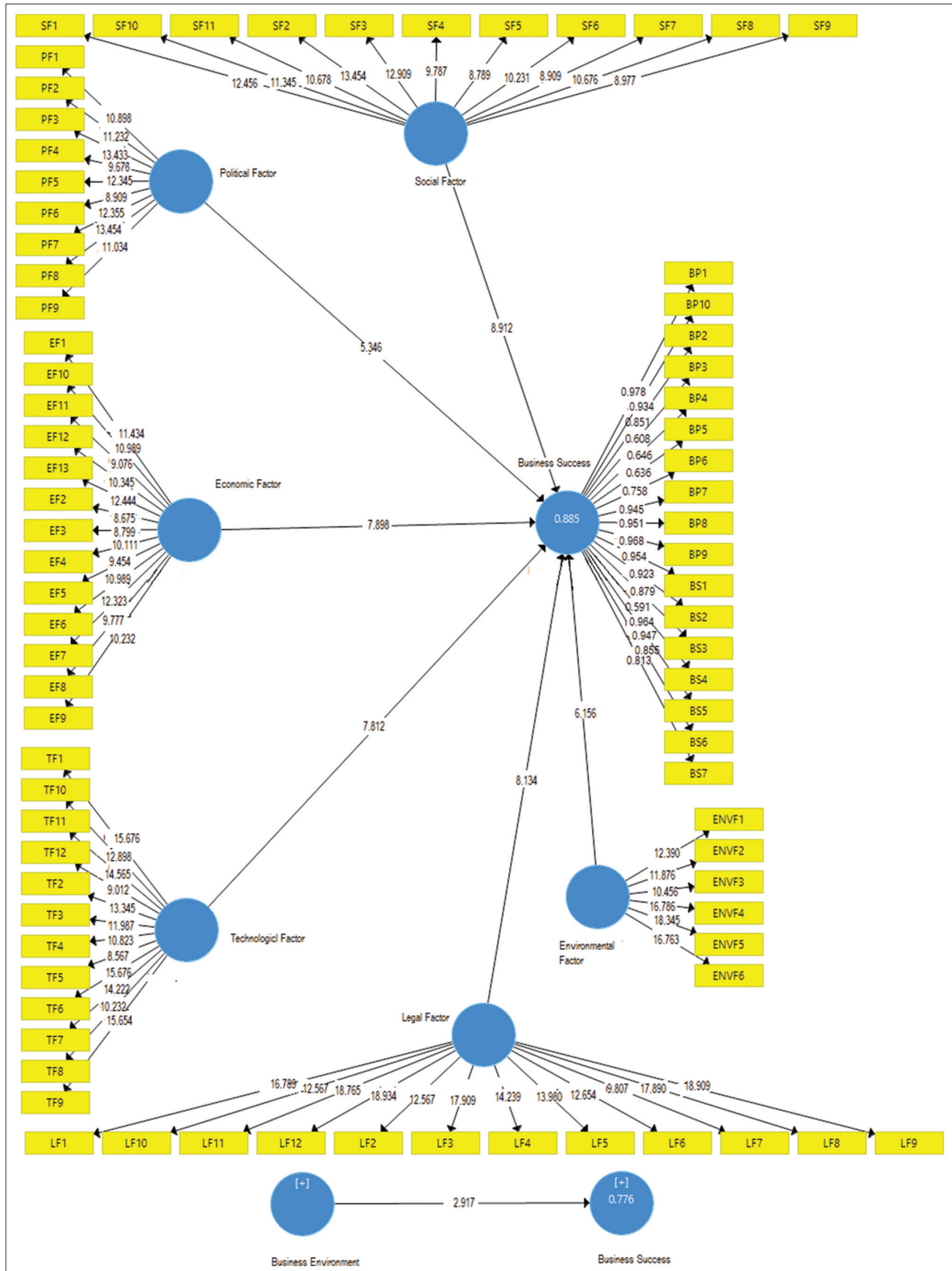
**Table 8: Path coefficient and T-statistics for hypotheses tested through Bootstrapping**

| S. No | Null Hypotheses | Paths | T Statistics | Results of hypotheses |
|---|---|---|---|---|
| $H_01$ | PESTLE factors does not have impact on Business success. | PESTLE Factors-> Business success | 2.917 | Significant |

Significant at the P<0.05 level

of workers' insurance, is one of the obstacles to the advancement of manufacturers and the ability to compete and keep pace with foreign companies.

- Most of the food manufacturing companies in Oman where raw materials are imported from abroad and manufactured in Oman. Based on the analysis, the researcher recommended the following to the various stakeholders for the development of non-oil manufacturing companies in Oman.

- Manufacturing companies must pay more attention to research and development activities by supporting innovations in order the enhance the quality of the products and to adopt the newest technologies as recommended by Dauda and Ismaila. (2013) for the development of manufacturing companies in order to compete in the gulf as well as in the international market.

- To ensure the continuity of the companies, the manufacturing companies must find multiple financial sources and investments to finance their business and maintain the strong financial side in the long term. As Notta et al. (2018) pointed companies faced high interest rates and loans made low profits and reduce the profitability and market share of the company.

- Companies should strengthen the Omani economy by seeking to innovate national products and find local alternatives to raw materials wherever applicable instead of importing from international markets.

- Understanding the local culture and being close to the target audience is critical when developing manufacturing companies. This is because the consumer values and beliefs has an active role in the development of the product and the company in all aspects for a long time.

- To the Policy Makers

  - The government should develop more special economic zones/industrial estates with adequate infrastructure facilities in addition to the robust digital infrastructure network to enable future-oriented manufacturing will motivate the young people and investors enter into the manufacturing business as pointed by Olurankinse and Bayo 2012 complete export processing zones to promote the export oriented manufacturing firms.

  - Non-Oil Foreign direct investment has more positive effect on the economy (Ekperiware 2011; Augus and Augustine 2015) so it is recommend to develop positive economic and political environment by easing the policies and procedures for the foreign investors. The procedures related to manufacturing companies should be reduced or eliminated in order to facilitate their work and support them to move forward.

  - The growth of manufacturing companies is reduced by the presence of business environmental barriers such as tax burden, unfair competition and inadequate financing

(Krasniqi 2007), establishing projects for investors without payment of taxes during gestation period, as well as easing fees and facilitating obtaining licenses, enable the development of manufacturing companies this would reduce dependence on oil.

- The policy makers also have to put in place several steps to push incentives to facilitate the establishment of industrial projects and facilitate their competition in the Gulf market, also enforce non-oil export policies towards resuscitating the failing non-oil export industry. (Nwanne 2014).

- There should be stimulating and supporting programs, research and development, and innovation: Innovation plans to create innovative products that will contribute to promoting growth by developing more manufacturing companies in Oman.

- Steps should be taken to create more awareness among the investors and young people about the funding sources, support programs and policies attached with the manufacturing companies to motivate them to enter in the non-oil manufacturing.

- The government should provide some rehabilitation or restructuring programs for the projects those who suffer from debts, so that these companies can continue in the market.

- The financial institutions must give a chance for young people by providing a grace period of atleast 2 years to repay their debts which will encourage the youth to get into this field and start their own projects.

- It is also recommended to reduce the export of products in the form of raw materials to neighboring countries, such as livestock, fish, as well as dates, as well as mineral wealth such as chrome and marble, materials for crushers instead of exporting as raw materials which can be exported after processing by adding value by manufacturing units, which contributes to economic growth significantly.

## 6. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Non-oil will have the ability to contribute and diversify the economy (Ude and Agodi, 2014; Al Awad 2010; Ljiieh 2014). In order to achieve economic diversification, the advancement of the industrial sector and overcoming the obstacles facing this vital sector is an essential pillar of the long-term development strategy. In this research, we have developed a conceptual framework to identify and understand the relationship between PESTLE factors and the success of Non-oil manufacturing companies in Oman. The researchers also formulated a hypothesis to test the factors affecting the development of the manufacturing sector, surveyed a number of manufacturers, used percentage, correlation, variance

and regression analysis to review and determine the nature and type of relationship between the PESTLE factors and non-oil manufacturing companies. Given the current conditions, this study was conducted on 52 companies. The results of the study showed that there is a positive relationship between PESTLE factors and the development of non-oil manufacturing companies in Oman, as Roxas et al. (2007) pointed out 3 dimensions –economic, political and socio-cultural environment are more important to develop manufacturing, which heralds the important contribution of local manufacturing companies to achieving sustainability and reducing import and unemployment rates. Further the present study suggests to conduct study on micro environment factors to support the development of non-oil manufacturing companies in Oman.

## ACKNOWLEDGEMENT

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