

Contributing forces in achieving foreseeable Industrial and Services Sector Growth Rates and their impact on GDP in the Sultanate of Oman

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Abstract

The Sultanate of Oman has reported around 4.31% of economic growth rate in the year 2022 over the previous year 2021. It is evident that the country has been able to achieve good economic growth and prosperity. The industrial policies of the country have been relevant and highly motivating for both national and international investors, so the economy is now able to attract both local and international investors to invest in both manufacturing and services sector. The Sultanate of Oman is diversifying its oil dependency to non-oil dependency sector, thus, the pressure on generating adequate revenue from oil exports can be reduced. The economy is diversifying its economic resources towards achieving sustainable industrial and services sector growth. The country had been able to achieve a growth rate of 3.09% in the year 2021. The increase in economic growth rate is fully assisted by growing rates in household consumption (16.8%) and raising retaining capital investments (more than 20 billion in US, dollars, keeping the inflation rates in the range of 1.5 – 2.8%. In addition to these factors, there must be other contributing forces like growth in industrial productivity, services sector contribution for the GDP, contribution of manpower, government spending, spending on health and education etc. The economy is current in the path of achieving 2040 vision in terms of economic development. Thus, understanding the contributing forces to enhance the manufacturing value added and service sector value added is important for the economy. Thus, research must be carried out essentially to find the relationship between GDP and the contributing factors such as industrial production and services sector contribution and other related variables. An initial analysis reveals that GDP in (US \$) is correlated with manufacturing value added with 1.00 positively and with services sector contribution with 0.635 positively. It is found that the country has got the greater potential in achieving maximum in manufacturing value added and in service sector value added. which can be converted into their competitive edge through policies and procedures. .

Keywords: GDP – Manufacturing value added – Service Sector value added - Correlation – Potential - Competitive edge.

Introduction

Economic growth of a country is driven by contributions of manufacturing and services sector. The growth that has been evident in manufacturing and services sector leads to an upward moving growth rate in economy, which is regarded as one of the key economic performance indicators of an economy. The contribution of manufacturing and services sector will have to be analysed in detail to know more about the insights into the sector wise contributions. This analysis will help policy makers and economists in formulating long-term strategies that can address country's potential effectively and turn such potential into bigger strengths, which are not imitable. Countries are working on developing strengths and opportunities within an economy, so every component of an economy, would gain benefit out of utilizing such strengths and opportunities. Manufacturing value added and service sector value added are contributing at a greater extent to the country's GDP level. Thus, the economic growth is ultimately measured with the help of GDP values obtained in two different periods. This GDP must be comparable and relevant for the policy makers, so they can formulate industrial, economic, fiscal and monetary policies that can capitalize the existing strengths of a nation. Thus, manufacturing value added, and service sector value and their components are immensely contributing in achieving the desired level of GDP in a country. An analysis on the components of manufacturing value added and service sector value will throw further insights into the components of these two and help policy makers in formulating policies and procedures.

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Academic Literature on economic growth rate

Economic Growth Rate

It is a percentage change observed in the value of goods and services produced by a country, compared to the previous financial year (Chen, 2023). Economic growth rate is measured as a percentage considering the change in the value of GDP of two different years. GDP of the current financial year is expected to be higher than the previous year, thus indicating a growth in economic condition. Economic growth rate is the most important indicator used in assessing the economic performance of a nation. Countries fix up a target rate to be achieved in economic growth and make plans and policies to achieve that targeted growth rate. Economies failing to achieve that target economic growth rate must intensify its industrialization projects, so in the subsequent financial years, the growth rate would not fall below the targeted rate.

Why economic growth rate is important?

Economic growth rate is so important for an economy since it measures the growth achieved in GDP over the years and is regarded as an indicator of performance of an economy (Sen, 2021). Economic growth rate is important for an economy for the following reasons:

- (i) It is an indicator of health of an economy
- (ii) It indicates about the effective utilization of all economic resources
- (iii) It helps in planning and prioritizing sectors wherein more focus in terms of allocation of resources, making directive policies are needed.
- (iv) A positive economic growth rate indicates that the economy has grown compared to previous years in terms of value of goods and services produced in a particular period.

Objectives of the Study

Following are the objectives of this study:

- (i) To analyze the driving forces of Oman's GDP over the last 10 years (i.e., 2013 to 2022)
- (ii) To analyze the manufacturing value added of the Sultanate of Oman and identify the relationship those sectors have over GDP of Oman in the study period (2013 – 2022)
- (iii) To analyze the services value added the Sultanate of Oman in last 10 years (i.e., from 2013 to 2022) to identify the sector or service from which the nation's competitive advantage can be achieved
- (iv) To identify some of the positive forces and the relative challenges that the Sultanate of Oman will have in achieving its growth in manufacturing and service value added.

Literature Review

Ilyas et. al. (2010) presents that manufacturing sector of any economy is the key output producing sector that can make the economy financially healthy and competitive. Meanwhile, the contribution of the manufacturing sector in achieving desired level of GDP must also be ascertained to focus, so existing strengths prevailing in those sectors can be converted into synergistic. Economies and policy makers will have to formulate policies and procedures in accordance to the insights found in any in depth study on contributing forces in manufacturing value added or manufacturing sector, so that strengths can be converted efficiently into a permanent beneficial factor for the economy.

Ntamwiza et. al (2022) presents that the economy of Rwanda, indicating the relationship existing between capital formation, foreign direct investment and the economic growth rate. This study analyzes the relationship existing between these economic variables and explains how capital formation is duly helping an economy to foster a sustainable economic growth rate. The objective of this study was to test the trends and relationship between capital formation, foreign direct investment and economic growth in Rwanda. The study also revealed that gross capital formation has positive correlation with manufacturing value, and thus provides a strong foundation to move ahead in achieving the desired rate of economic growth as well as GDP in (US \$). At the same time, the services sector contribution is also playing a major role in determining the economic growth rate, thus this must also be studied in detail.

Zhou et. al (2017) presents that service sector boosts the economy to achieve a desirable performance level in terms of achieving good employment rate, higher labor productivity and overall, the country's GDP. It is evident from many studies that the services sector contributes well to an economy and is the major contributor of GDP. This makes it a point that the factors or contributors of serviced sector value must also be analyzed well in detail to identify the industries in services sector that provide the maximum contribution in the GDP of a nation. This research aims to identify the components of services sector value and its relationship with GDP reported.

Ndubuisi et. al (2023) argues that the growth in the service sector increases employment opportunities enormously and it brings productivity growth. The services sector is creating a wealth of jobs in an economy and bridging the gap in employment conditions. The services sector works as a complementary to the manufacturing sector in offering placements to qualified people. By doing so, the sector is immensely contributing in minimizing the unemployment problems. Secondly, the sector identifies the right talent which will have to be inculcated among the people, so they will not face any unemployment scenario

Owusu et al. (2021) found that the productivity growth in service activities is equal to or higher than that in manufacturing and other sectors. This indicates that the inputs used in services sector are efficiency used as they are being used in manufacturing sector. Thus, service sector produces output that are on par or better than the output of manufacturing sector. There are other studies that make it clear that productivity improvement in services sector is more important than the productivity achieved in manufacturing sector. (Timmer et. al 2009).

Economic Growth rate in Oman

The mean (average) economic growth rate (in %) achieved by GCC countries, including Oman in the last 10 years is as under:

Table 1 - Economic growth rate (calculated) achieved by Oman in the last 10 years of time (2013 – 2022)

Analytical Tool	Oman	Overall GCC Rate
Mean	2.11	2.17
Median	2.19	2.56
Standard Deviation	2.94	3.42

(Source: the global economy, world bank data, 2024)

Table 1 given above makes it clear that Oman's average growth rate recorded in the previous 10 years has been close to the overall mean growth rate of GCC countries and when compared with other GCC economies, the growth rate achieved in Oman is bit higher than a few other economies as well. The

variations observed in the growth rate (measured in standard deviation. i.e., 2.94) which is lower compared to other GCC economies and the overall GCC variation, which is 3.42 (See Table 1)

Contributing Forces – Manufacturing Value Added

Economic growth is measured by the increase in value of goods and services produced in a certain period. Thus, GDP is influenced by all sectors of the economy including manufacturing, service sector, agriculture sector, oil sector etc.

Table 2 – Manufacturing Value Added and its contribution to GDP of Oman

Year	Gross Domestic Product, billions of U.S. dollars	Manufacturing value added, billion USD (\$)	% of manufacturing value added to GDP (in US Dollars)
2013	89.94	8.46	9.41
2022	114.67	12.04	10.50
Mean	87.568	7.812	8.85
Correlation between GDP (in billions of US \$ and Manufacturing value added (in billion US \$) is 1 (One) – representing a high positive correlation			

(Source: the global economy, world bank data, 2024)

Table 2 reveals an analysis done on GDP and the Manufacturing value added in the Sultanate of Oman during 2013 – 2022. This analysis indicates the following:

- (i) Manufacturing value added can positively contribute to achieving a desirable growth in GDP
- (ii) Manufacturing sector's contribution to GDP has been constantly increasing, indicating a positive correlation with the GDP's growth, across the years, ($r = 1$), This indicates that the country has the potential to influence GDP through the contribution of manufacturing sector. Thus, a further close study on industrial policies of the country and having some changes in them, will bring in more contribution to the country's GDP as there exists a perfect positive correlation between manufacturing value added and the GDP (See Table 2)

Manufacturing Value Added – Components Analysis

Worldbank (2024) explains that “manufacturing value added as the net output of a sector after adding up all outputs and subtracting intermediate inputs” and it is influenced by the economic variables like government spending, capital investment, household consumption (in % of GDP). All these components contribute to manufacturing value added and in turn for achieving a growth GDP of a nation. The following table (table 3) illustrates the contributions of the components in manufacturing sector to the manufacturing value added of the Sultanate of Oman during 2013 – 2022:

Table 3 – Components of manufacturing sector that can positively contribute to Manufacturing Value Added and to GDP in Oman during 2013 - 2022

Information	Value added by the manufacturing sector as percent of GDP	Capital investment as percent of GDP	Household consumption as percent of GDP	Inflation: percent change in the Consumer Price Index	Exports of goods and services as percent of GDP	Foreign Direct Investment, percent of GDP	Government spending as percent of GDP
Mean Value in Oman	8.66	30.65	36.92	0.71	51.54	3.04	23.19
GCC average	10.86	29.43	35.64	1.58	62.88	1.62	19.54
% of Oman's value to GCC's average	79.75	104.16	103.60	45.09	81.97	188.10	118.65
Impact Analysis	Major Contribution	Highly contributing	Highly contributing	Minor Contribution	Highly contributing	Highly contributing	Highly contributing

(Source: the global economy, world bank data, 2024)

Table 3 given above presents the some of the variables that could have positively contributed to the manufacturing value added in Oman. There are several variables that can contribute positively in achieving the highest manufacturing value added possible. Variables such as capital investments made, inflation rate prevailing in the economy, value added by the manufacturing sector, exports, foreign direct investments (FDI), and government spending are all contributing in an economy to achieve the highest possible manufacturing value added. Table 3 points out clearly that all these variables analysis are making a positive impact on the manufacturing value added and it is also observed that in the contributions of capital investment, household consumption, foreign direct investment and government spending are far better as the ratio of Oman to GCC countries is exceeding 100% (i.e. 104.16, 103.60, 188.10 and 118.65 in percentages respectively)

Following are the observations from the analysis:

(i) Investments made on assets purchased in the industrialization process is a high contributing factor in getting the desired manufacturing value added in Oman. Capital investments can be used as a major driving force in industrialization process in Oman, i.e. Oman's average value is 104.16% higher than the GCC value.

(ii) Household consumption is one of the key significant factors making an impact on the manufacturing value added in Oman. A rise in household consumption is expected to give a rise in manufacturing value added. Thus, focusing on household consumption products in the manufacturing sector would be an advantageous one for Oman

(iii) Foreign Direct Investment (FDIs) are contributing at a higher proportionate in getting the desired manufacturing value added, thus, FDIs can be regarded as one of the pathways in industrialization process in Oman

(iv) Government spending is one of the key contributing factors in industrialization and getting the desired manufacturing value added. Government spending efficiency can be one of the focus areas to be considered in industrialization process in Oman.

Contributing Forces – Services Value Added

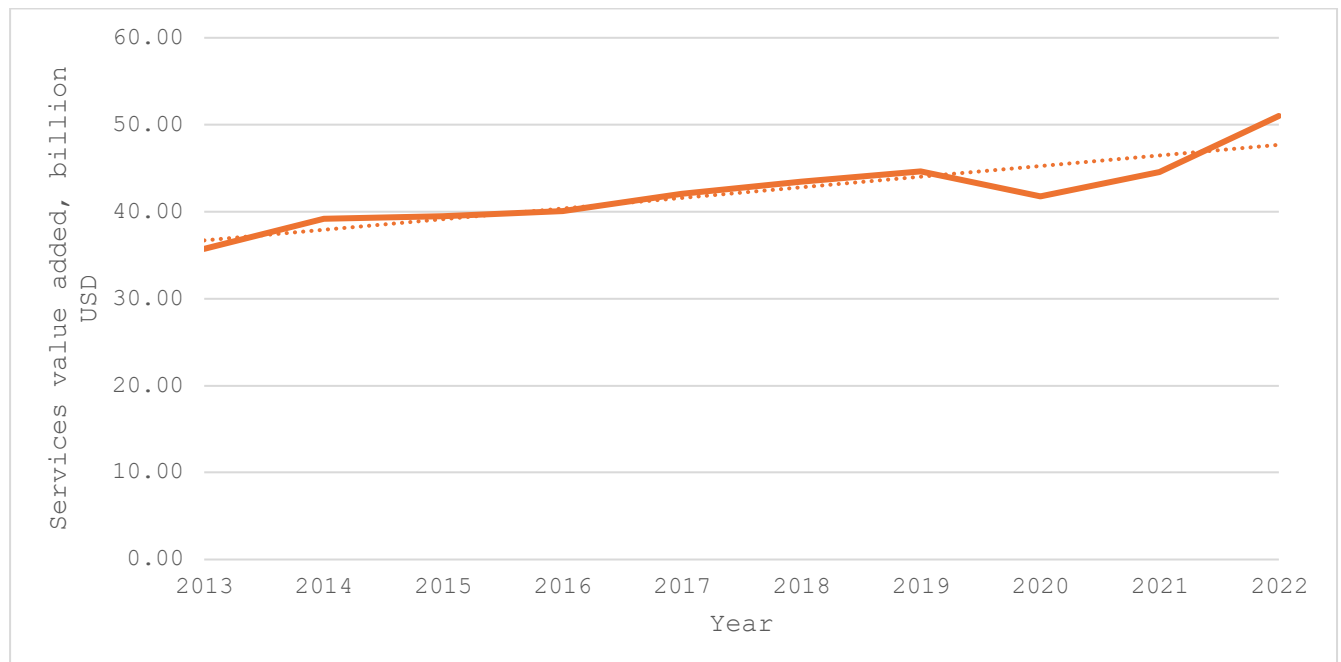
World bank (2024) explains that “service sector value added includes the value added in wholesale and retail, transport, and government, financial, professional, and personal services such as education, health care, and real estate services, imputed bank service charges, import duties. Value added is ascertained taking the sum of output of different sectors and subtracting the intermediate inputs and without making depreciation deductions. Services sector contribution is also one of the contributing factors of GDP of a nation.

Table 4 – Service Sector Value Added and its contribution to GDP of Oman

Year	Gross Domestic Product, billions of U.S. dollars	Services value added, billion USD	% of Service Value added in GDP (in US \$)
2013	89.94	35.73	39.73
2022	114.67	51.01	44.48
Mean	87.57	42.20	48.57
Median	88.13	41.92	50.32
Standard Deviation	11.53	4.13	4.97

Correlation between GDP (in billions of US \$) and Services sector value added (in billion US \$) is 0.635 – represents a high positive correlation

(Source: the global economy, world bank data, 2024)



(Source: the global economy, world bank data, 2024)

Fig.1 Service Sector Value Added in Oman from 2013 - 2022

Table 4 given above illustrates that in Oman service sector contribution is of pivotal importance in achieving and sustaining the desired economic growth rate. The values of service sector value added has

been steadily increasing as seen in Fig.1. An analysis of service sector value added of Oman reveals the following:

(i) The contributions of services sector are higher than the contribution of manufacturing value added in GDP of Oman (See Table 2 and 4)

(ii) The value added in services sector keeps increasing throughout the period of study (from 2013 – 2022), indicating a big rise in demand level of services sector (see Table 4). This indicates that Oman is one of the key service providers in GCC region and it has the potential to excel in services sector. This is one of the key competitive edge factors that Oman possesses, which will have to be further explored in the subsequent financial budgets.

(iii) As the service sector value added percentage is high in terms of its contribution to the GDP (as percentage to GDP), it indirectly asserts that the cost of rendering such services has been minimum when compared to other countries in GCC countries and which is falling well within the limit that is determined in advance. (See Table 4)

(iv) The government policies are highly conducive for the entrepreneurs who want to have businesses that focus on providing services than merchandising and manufacturing. This is one of key competitive forces that Oman possesses and with the help of that edge, organizations in Oman could provide services to people at the best possible/affordable prices to the consumers of such services.

Service Sector Value Added – Components Analysis

It is evident from Table 4 that service value added in GDP of Oman is leading and competing highly with manufacturing value added. Secondly, it was observed from Fig. 1 that service sector value added contribution to GDP has been consistently increasing, indicating a greater potential for Oman being developed as a service sector hub in GCC region. An analysis into some of the key services variables that are part of service sector value added is essential. This analysis would reveal what industry in services sector is contributing much to the economy. An attempt has been made here to analyze the contributions of different industries that are coming under the service sector.

Table 5 – Components of Service Sector Value Added in Oman in comparison with GCC countries from 2013 – 2022 - A Descriptive analysis

Information	Bank assets, percent of GDP	Insurance company assets, percent of GDP	Research and development expenditure, percent of GDP	Health spending percent of GDP	Public spending on education, percent of GDP	International tourism revenue, percent of GDP
Average value in Oman	78.62	3.38	0.25	4.23	5.36	2.62
GCC Average	104.60	6.49	0.46	4.31	4.15	4.63
% of Oman's average to overall GCC countries average	75.16	52.11	54.41	98.17	129.07	56.52

Impact analysis	Growing	Growing	Growing	Growing at an increasing rate	Well-Grown Sector	Growing Sector
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(Source: the global economy, world bank data, 2024)

Table 5 makes it clear that service sector is hugely contributing to the GDP of Oman. The mean value of the service sector value added in a few industries is much higher than in other GCC countries. For example, in public spending, Oman's mean value in contribution to GDP % is much higher than the other GCC countries reflecting the importance of public spending in achieving the desired GDP. (See Table 5)

An analysis on services sector value added being the major contributor to GDP of Oman, reveal the following:

(i) Oman is an oil dependent economy. A lot of related oil extraction service providing organizations must be present in the market for the safe and efficient extraction of oil. Thus, the contribution of services sector that are closely working with oil sector is tremendously high in Oman.

(ii) The government spending on the education sector is huge. Thus, in terms of knowledge and skills needed in performing the required services, Oman would be ranked high, as revealed by the contribution of education sector of the government. Thus, education and educational services sector can be regarded as one of the highest contributing industries in Oman. This sector can be further explored for achieving a constant growth in GDP and economic growth rate.

(iii) The government is also spending huge amount of wealth on developing and providing best health care facilities in Oman; thus, the health sector is seeing a consistent growth in terms of its contribution to GDP. Table 5 clearly reveals that the contribution of health care sector is vital for the country and with the help of that sector, GDP of the country is also getting value additions

(iv) Banking and Insurance sectors are booming up and competing with international companies. Value added services are being offered by these organizations to attract more and more customers to such services. Thus, the banking and insurance industry is seeing an upward growth in terms of its reach out to national and international customers. Thus, this sector is also one of the highest contributing industries in service sector value added as well in GDP of Oman.

Findings and Discussion

Following is some of the findings of the Study:

(i) Oman is one of the leading economies in GCC countries. Oman's revenue mostly comes from exports and sale of oil. This is an oil-based economy. Though the country's major source of revenue is oil and its allied activities, it possesses huge potential in achieving the highest possible manufacturing value added and service sector value added. The contribution of these two sectors has been significant and potential enough, replacing oil revenue with tax revenues arising from profits of companies coming under both manufacturing and services sectors respectively.

(ii) Manufacturing value added in Oman both in terms of US (\$) and as a % of GDP is seeing a big shift. There has been an increasing trend in the manufacturing value added (in US\$) indicating current industrial and economic policies are in favor of industrialization and entrepreneurship. The increasing trend in manufacturing value added and its positive correlation with the GDP in Oman indicate there has been efforts for diversifying the revenue streams of the country. The policies that are implemented in effect of

diversifying revenue streams through entrepreneurship and FDI invites are working good in the country and producing the desired results.

(iii) Capital investment in Oil and Gas sector and related industries will have the potential in creating many service providing organizations in Oman. Thus, an enhanced contribution in manufacturing value added will be assisting in establishing many service sector organizations in Oman. This indicates that Oman has the potential in expanding service sector value added through an increased contribution in manufacturing value added. Both manufacturing value added, and service sector value can go hand-in-hand with an incremental investment in either manufacturing or service sector in Oman. This potential will have to further explored in Oman.

(iv) Apart from oil exports, Oman's other potential export products such as minerals can be explored. As the manufacturing value added increases with the investments been committed in capital assets, Oman can raise the amount of capital investment being committed in industries development and sustainability. In this direction, further exploration of minerals can be focused and additional investments in this industry can be made. This will bring competitive advantage to Oman as capital investments are diversified towards having energy related products.

(v) Services sector is contributing widely for GDP of Oman as the sector tends to be possession of all kinds of resources like manpower, technology, capital investments, skills and knowledge. The services sector's contribution to GDP has been constantly raising and it is positively contributing at a higher level in Oman. Thus, further investments in services sector will offer additional benefits to the economy in terms of additional employment, enhanced corporate tax revenue, enhanced GDP etc.

Conclusion

The research clearly highlights the fact that the Sultanate of Oman is having all the potential to excel in manufacturing and services providing industries. This potential is getting converted into competitive edge in the economy through additional investments in long-term assets as well in people welfare and health facilities. The government spending in Oman is one of the greatest contributors in achieving the desired manufacturing value added and services sector value added and in turn the GDP and economic growth. The economic indicators provide clear evidence about the country's potential. Trade and other Manufacturing sector policies will have to fully address the potential that Oman has in yielding desirable economic growth rate. Sultanate of Oman is also taking care of the expectations of present and future Entrepreneurs as they stand behind shifting from oil dependency to being non-oil dependent. Policy makers can identify the potential well and formulate policies accordingly so that all the potentials identified in manufacturing and service sector value added into competitive edge for the nation.

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