



ROLE OF SAVINGS IN THE ECONOMIC DEVELOPMENT OF THE SULTANATE OF OMAN

Dr. Kanniga Prashanth* Dr. T.S.Raaja Justin*

Muna Abdullah Said Al-Saadi Hajer Khamis Salim Al-Mizini****

**Faculty **Research Scholars - Business Studies Department, University of Technology & Applied Sciences, Al Aqur, Sultanate of Oman.*

Abstract

The critical role that domestic savings rate could play in economic growth process has continued to attract the interest of economists both at theoretical and empirical levels particularly since the formulation of Harrod-Domar model. The purpose of this project is to analyze the role of savings in the economic development of the Sultanate of Oman from 2009 to 2018. Currently, the national economic growth is mostly based on crude oil, natural gas and oil products. For the development of the non-oil sector, mobilization of domestic savings into investments would prove very useful. Savings of people in Oman will be the most important investment resource for the development of the non-oil sector and further leads to economic development of the country.

The paper reviewed the literature and found that Harrod-Domar model has been used to test the relationship between savings and economic development of the country. The data were collected from the secondary sources to analyses the relationship between savings and economic development of Oman. Two important determinants of savings, such as interest rate and inflation rate were analyzed. Other variables, such as gross capital formation, gross national expenditure, household final consumption expenditure, gross capital formation, exports and imports of goods and services were also analyzed, as these determinants are the major forces that shape the economic situation of the country. The result shows that savings to gross domestic product ratio has positive effect on economic development most of the years. But it also has a negative effect on economic development for few years. This could partly be a result of dissaving during those particular periods under study. At the same time, the results also reveal that six independent variables such as LBR, EXPO, IMPO, INT, GNE and GDS are statistically significant and the other three INFR, GCF and HFCE are statistically insignificant. The results supported the Harrod-Domar model which proved that saving rate positively or directly related to the GDP. The study concluded that the Harrod-Domar model is applicable to the economy of the Sultanate of Oman. So, the government should adopt an appropriate approach to encourage savings and foster economic growth.

Key Words: Savings, Economic Development, Gross Capital Formation, Gross National Expenditure, Household Final Consumption Expenditure, Gross Capital Formation.

Introduction

The Economic growth of a country can be referred to as the economy's capacity to increase the productivity of services and goods in comparison with previous time period. Savings has long been considered as an engine for economic growth. Savings creates capital formation and it further leads to technical innovation and progress which helps with the economies of large-scale production and increases specialization, which helps to accelerate the productivity of labour, it further resulting increased GDP. Thus savings leads to fuller utilization of available scarce resources in an efficient way, increase in the size of national output, income and employment, thereby solving the problems of inflation, unemployment and balance of payment, poverty, inequality; and making the economy free from the burden of foreign debt and leads to state of better welfare.



Oman is one of the countries that have a different style of saving. Citizens should be encouraged to save money because it helps to raise the standard of living and improve the quality of life. Omani individuals are advised to rationalize consumption needs and try to save as much money as possible. Omani families contribute to savings to meet basic needs. People can save more in Oman than any other Gulf country because Oman has no more expensive leisure options or expensive luxury brands. Workers in Oman struggle to save money for their future, with salaries falling and inflation rises. It's a worrying situation for most people because they realize the importance of putting some money to save them.

Savings and investment are vital factors in providing a secure financial future, as well as investing in asset purchases that are expected to return additional funds to the individual. There are many types of investment, the most common options in Oman such as: investment in real estate, land and security also in gold and silver. Money market accounts that offer the highest interest and interest rates to a savings account person. Also, deposit certificates can offer higher interest rates than savings or money market accounts, as well as investment elements from various attractions that entice the investor to increase savings. Duqm is an attractive investment area because of the availability of good facilities and favorable features to accommodate any project directly related to industrial projects, thus increasing savings.

Statement of the Problem

The purpose of this study is to analyze the possibilities of accumulation and mobilization of savings and their role in the economic development of the Sultanate of Oman. However, inadequate savings and investment are common problem in developing countries. Poor performance of the economy, high unemployment level, engagement of a large proportion of the population in the informal sector and low wages are factors responsible for low domestic savings in small developing states. This study will help in mobilization of domestic savings is crucial for raising the economic growth and promoting development and play of savings an important role in any economy and its role is important at different levels. As a result, this will lead to the solution for economic problems and it leads to economic growth of the country.

Aims and Objectives of the Study

The general objective of this study is to examine the role of savings in the economic development of the Sultanate of Oman and the following are the specific objectives:

- To study the significant factors influencing savings.
- To investigate the significant relationship between savings and economic development in the Sultanate of Oman.
- To analyze the impact of savings on the economic development of the Sultanate of Oman on the basis of time period.

Research Hypothesis

The study attempted to validate the following hypotheses:

Null Hypothesis (H₀) :

- There is no significant relationship between savings and economic development
- There is no significant causal relationship between gross domestic savings and economic development.



Scope of the Study

Economic development is a crucial indicator of any country's economy. According to Rasmidatta (2011), economic growth also acts as an indicator of other macroeconomic dynamics such as standards of living, per capita income and national income. Many countries seek to increase their economic growth with the primary aim of reducing poverty levels. Abu AL-Foul (2010) notes that investment resulting from growth in savings leads to economic growth. Savings increase an economy's potential to invest, which in turn increases its production capacity. Findings from studies such as Kumo (2012) and Jagadeesh (2015) show that inadequate savings is one of the major hindrances to economic development. This implies that savings should be increased if a country is to realize her desired goal of sustainable economic growth (Rasmidatta, 2011). This study covers a period of ten years from 2010 to 2019. The data on gross domestic product, gross domestic savings, gross capital formation, gross national expenditure, household final consumption expenditure, gross capital formation, exports and imports of goods and services were collected to analyze the role of savings in the economic development of the sultanate of Oman.

Limitations of the Study

- Time is one of the limiting factors to complete such research as per the required quality.
- The data required for this study is not available in one common source.
- The study was fully relied on secondary sources of data. Limitations of the secondary sources of information such as availability, reliability and accuracy is applicable for this study.

Definition of Terms

Savings: is the surplus of individuals after consumption of basic needs and is the income that is not spent and retained or deferred income for the future. Savings also reduce expenses, such as recurrent or unimportant costs.

The economic development of the country is the ability of the economy to increase the productivity of services and goods compared to the previous period and in the future. Savings have long been considered as the engine of economic growth in the country and its mission to develop.

Related Literature

Muhumuza Roland (2019) "studied the relationship between savings and economic growth in Uganda. The main approach used was the ordinary least squares to test for the long run relationship. The variables that were investigated in this study included economic growth, gross domestic savings, gross capital formation, household final consumption expenditure, gross national expenditure, exports and imports of goods and services. The study recommends that government should consider enforcing policies that enhance income since it plays a major role in increasing savings so as to facilitate economic growth. This can be done through the increase in total factor productivity".

Haider Abdul Redha Al-Lawati (2018) "studied importance of saving in Oman. Some banks do programs to promote and encourage culture of saving locally. For business, saving enables them to finance, invest expansion, growth and increase their liability to hire more people. For government, helpful to investment in infrastructure and social service such as: schools and hospitals".

Lumengo Bonga-Bong (2017) assessed the marginal propensity to save by the household, corporate and government sectors in South Africa. The results of the econometric analysis demonstrate that the greatest responsiveness of savings to GDP growth occurs amongst corporates. These findings should



inform the South African government on how to regulate sectoral taxation that intends to encourage savings, given the low level of savings in the country.”

Philippe Aghion (2016) addressed this question both theoretically and empirically “Can a country grow faster by saving more? In the theoretical model, growth results from innovations that allow local sectors to catch up with frontier technology. In poor countries, catching up requires the cooperation of a foreign investor who is familiar with the frontier technology and a domestic entrepreneur who is familiar with local conditions. In such a country, domestic savings matters for innovation, and therefore growth, because it enables the local entrepreneur to put equity into this cooperative venture, which mitigates an agency problem that would otherwise deter the foreign investor from participating.

Dhanya Jagadeesh (2015) “investigated the role of savings in Economic growth in Botswana. Botswana is one of the most successful resource-rich countries in the world. The test found out that there is significant relationship between Savings and Economic growth and the study supported Harrod-Domar growth Model”.

Reza Najarzadeh, Michael Reed & Mona Tasan (2014) “assesses the relationship between savings and total and non-oil economic growth for Iran. The results of the study show that there is a positive and significant impact of savings on total and non-oil economic growth. Both types of economic growth are also found to have positive and significant effect on savings. In addition, the results show that there is a long-run causal relationship between savings and economic growth, and between saving and non-oil economic growth, and that these relations are two-way”.

Ibrahim Alomar (2013)” indicates Long run growth imply that economic growth is associated with accumulating of the physical capital by more domestic savings. This study aims to investigate the relationship between domestic savings and economic growth of GCC. The findings suggested that the economic growth rate Granger causes growth rate of savings in 4 countries”.

Jangili, Ramesh (2011)” assessed the relationship between saving, investment and economic growth for India. The present analysis focuses on India, where saving rate has been the most pronounced. Further, it is empirically evident that saving, and investment led growth is coming from the household sector. The results indicate that though the Indian economy is opened to foreign investments, growth is still driven by the domestic saving”.

Rzeszów (2011) analyzed the cause and effect relationship between economic growth and savings in advanced economies and in emerging and developing countries. In this work we used the method based on studies in macroeconomics and international finance as well as econometric methods (co-integration models and Granger’s causality test). At the same time, it was revealed the absence of causal relationship between gross domestic product and gross domestic savings both in developed economies and developing and transition countries.”

Nagi Bairamli and Vassilis Kostoglou (2010) “analyze the possibilities of the accumulation and mobilization of savings and their role in the economic development of the Republic of Azerbaijan. Currently, the national economic growth is mostly based on the resource components; crude oil, natural gas and oil products. For the development of the non-oil sector the mobilization of domestic savings into investments would prove very useful. Most of the savings are made when they are fully channeled into the productive investments. As a result, this will lead to the solution of problems”.



Tarlok Singh (2010) “this study examines the long-run effects of domestic saving on income shows the bidirectional causality between saving and growth. The stylized evidence for the steady-state effects of saving on income suggests the need to accelerate domestic saving to finance capital accumulation and foster higher income and growth”.

Sajid and Sarfaraz (2008) “analyzed the effect of savings on economic growth by using seasonal data for 1973 to 2003 in Pakistan. The authors assessed the causality Relation between savings and economic growth by using co -integration techniques and A Vector Error Correction Model (VECM). Their results show that there is a one-way causal relationship from savings to economic growth”.

Noriyoshi Hemmi (2007) “studied the relationship between precautionary savings and economic growth. They used an Autoregressive Conditional Heteroskedastic (ARCH) model with annual data from 1955 to 1990. They concluded that increased savings can have a favorable impact on sustainable growth. They also found that stronger shocks on precautionary savings result in the higher levels of savings as a whole”.

Mohan, Ramesh (2006) “addressed the relationship between domestic savings and economic growth for various economies with different income levels. Using time series annual data, the Granger causality test was conducted. The study seeks to determine whether the direction of causality in these economies is different based on their income class: namely low–income, low–middle income, upper–middle income, and high–income countries”.

Aylit Tina Romm (2003)” examined the directions of association between savings and growth in South Africa. We examine the aggregate private saving rate and its interaction with investment and growth. The paper finds that the private saving rate has a direct as well as an indirect effect on growth. The indirect effect is through the private investment rate. In turn, we find that growth has a positive effect on the private saving rate. The extent of this effect is determined by liquidity constraints”.

Jonathan Krieckhaus (2002)” Developmental state theory suggests that rapid economic growth can be achieved when states *allocate* financial resources to strategic industrial sectors. While not denying this mechanism, I argue that an equally important component of state-led growth is public sector efforts to *mobilize* financial resources for investment and growth. I support this argument with cross national statistical evidence, and a Brazilian case study, both of which suggest that public savings substantially influence economic growth rates”.

President and Fellows of Harvard (2000)” examined analysis of the long- and short-run correlations among saving, investment, and growth rates for 123 countries over the period 1961-94. Three results are robust across data sets and estimation methods: i) lagged saving rates are positively related to investment rates; ii) investment rates Granger cause growth rates with a negative sign; iii) growth rates Granger-cause investment with a positive sign”.

Research Methodology

This research work is based on Quantitative Research. It focuses on gathering numerical data and generalizing it to explain a particular phenomenon. The present research used an analytical research design. It uses secondary sources and a variety of documentary evidence, such as official records and reports. Time series data on savings and economic development covering the time period from 2010 to



2019 were used to analyze the relationship between the savings and economic development of Sultanate of Oman.

The secondary data were collected from the website of Central Bank of Oman and CEIC (Census and Economic Information Center). The variables included in this project are gross domestic product, gross domestic savings, gross capital formation, gross national expenditure, household final consumption expenditure, gross capital formation, inflation rate, export and import. After collecting the data of dependent and independent variables, the data were analyzed at two different levels viz; Descriptive analysis and Statistical Analysis.

- Descriptive analysis was used to investigate the significant relationship between savings and economic development in the Sultanate of Oman. Different Ratios were calculated for this analysis.
- Statistical Analysis was used to analyze the impact of savings on the economic development of the Sultanate of Oman on the basis of time period. Multiple Regression Analysis was done by using SPSS to find the cause and effect relationship among the variables and to validate the framed hypotheses by using “Harrod-Domar Model”.

Analysis & Discussion

Descriptive Analysis of the Variables

The present study set out to establish the role of savings in the economic development of the Sultanate of Oman from 2010 to 2019. The descriptive analyses of the variables used for the selected variables. Such variables are economic development, gross savings to gross domestic product ratio, gross domestic savings to interest ratio, gross domestic savings to interest inflation ratio, gross domestic product to gross capital formation ratio, gross domestic product to export, gross domestic product to import, gross domestic product to inflation ratio, gross domestic product to labor ratio, gross domestic product to gross national expenditure and gross domestic product to household final consumption expenditure.

- The result shows that savings to gross domestic product ratio has both positive and negative effect on economic development of the country. But it also reveals that savings to gross domestic product ratio has a negative effect on economic development for few years. This could partly be a result of dissaving during those particular periods under study.
- The results further show that changes in interest rate and inflation rate also affect the savings. However, savings to GDP ratio had an increasing trend from the year 2017.
- Gross Capital Formation has been unstable from one year to another. The highest ratio is in the year 2016 and it could be due to new economic policy of Oman which aimed at improving the fiscal position, enhancing private sector-led growth and employment, and also encouraging diversification.
- Exports to GDP ratio have been increasing from 2010 to 2012 and started decreasing from 2013 to 2015. Lower global oil prices from 2013 to 2016 weakened Oman’s export to GDP. Again, it started increasing from the year 2017, the resultant rise in oil prices, however, provided much needed relief to the economy.
- Imports to GDP ratio had an increasing trend. Overtime, the Sultanate of Oman mostly depends on imported commodities as this can be partly because of the free trade policy practicing in the country.
- Gross National Expenditure to GDP ratio had an increasing trend with a marginal average. The ratio was lowest at 48.25 in the year 2010 and highest at 66.37 in the year 2014.
- Household final consumption expenditure to GDP ratio had a fluctuation over a period of time. Overall, household final consumption expenditure is increasing like GDP of the country.



- The result shows that ‘p’ value of the F statistic is 0.000 less than the significance value of 0.05 at 95% confidence level. This implies that the independent variables do good explaining the variation in the dependent variable. It is concluded that the model is statistically significant and also the model fits the data.
- The results further show that the significance of individual independent variables. LBR, EXPO, IMPO, INT, GNE and GDS indicates that the significance level at 0.05 (confidence level of 95), all these six independent variables are statistically significant in the model. Other three INFR, GCF and HFCE are statistically insignificant.

Statistical Analysis of the Variables

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modeling the future relationship between them. Here, regression analysis is used to predict the relationship savings in national currency with other dependent variables.

Dependent variable

Y = Savings in National Currency

Independent variables

$X_1 = \text{GNE}, X_2 = \text{GCF}, X_3 = \text{EXPO}, X_4 = \text{IMPO}, X_5 = \text{INFR}, X_6 = \text{GDP}, X_7 = \text{LBR}, X_8 = \text{GNE}$

Thus, the model is given below.

Y (Savings in National Currency) = a + b₁(GNE) + b₂(GCF) + b₃(EXPO) + b₄(IMPO) + b₅(INFR) + b₆(GDP) + b₇(LBR) + b₈(GNE).

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a **regression** model and form a basis for tests of significance.

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	80114686.608	8	10014335.826	57.177	.017 ^b
Residual	350290.949	2	175145.475		
Total	80464977.557	10			

a. Dependent Variable: SAVINGS IN NATIONAL CURRENCY

b. Predictors: (Constant), HFCE, EXPO, IMPO, INFR, GCF, LBR, GDP, GNE

From ANOVA analysis summary table, the statistical significance of the model is to be proved first. From the above table the p-value or significance is 0.017, which is less than 0.05, which means, this model is acceptable.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998 ^a	.996	.978	418.50385

a. Predictors: (Constant), HFCE, EXPO, IMPO, INFR, GCF, LBR, GDP, GNE

b. Dependent Variable: SAVINGS IN NATIONAL CURRENCY



Regression analysis result of Savings of Oman citizens and other influencing factors is revealed in Table above. As shown in the model summary, R²=0.996 (adjusted R²=0.978) suggests the explained degree of impact on saving of Oman citizens by Eight variables: HFCE, EXPO, IMPO, INFR, GCF, LBR, GDP, GNE is 99.6%, that is to say, these 8 variables have 99.6% level of influence on Saving capacity of Omani citizens.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-64170.308	14916.347		-4.302	.050
GDP	.937	.604	.996	1.550	.261
GCF	-.610	.910	-.193	-.670	.572
EXPO	.743	.075	.978	9.923	.010
IMPO	.007	.006	.099	1.321	.318
INFR	725.171	451.717	.336	1.605	.250
LBR	1207.363	293.760	1.866	4.110	.054
GNE	-1.093	.818	-1.270	-1.335	.313
HFCE	-2.771	1.736	-1.607	-1.596	.252

a. Dependent Variable: SAVINGS IN NATIONAL CURRENCY

The regression model coefficient of national savings of Oman citizens and influencing factors is shown in Table . According to the result of regression coefficient, we built a regression formula with non-standardized coefficient. Hence the regression model is:

$$Y = -64170.3 - 1.093 (GNE) - 0.610 (GCF) + 0.743 (EXPO) + 0.007 (IMPO) + 725.171 (INFR) + 0.937(GDP) + 1207.363 (LBR) - 1.093 (GNE)$$

Hence “Harrod-Domar Model” is applicable to the economy of Oman.

Recommendation

Policy makers should focus on increasing the level of domestic savings because the crucial problem for developing countries are the lack of investments which restricts economic development and it will also lead to the problem of unemployment and poverty. The result shows that saving is the channel through which capital formation is transmitted to accelerate the economic development in the Sultanate of Oman.

Conclusion

The study therefore concludes that there is a significant relationship between savings and economic development of the country. The study also concluded that the Harrod-Domar model is applicable to the economy of the Sultanate of Oman. So, the government should adopt an appropriate approach to encourage savings and foster economic growth. Therefore, the country is required to increase savings to attain high and sustained economic development.



References

1. Aylit Tina Romm (2003): The Relationship between Savings and Growth in South Africa: An Empirical Study. From: <http://www.tips.org.za/files/688.pdf>
2. Dhanya Jagadeesh (2015): The Impact of Savings in Economic Growth: An Empirical Study Based on Bostswana ,from: <http://www.ijrbm.org/pdf/v2-i9/2.pdf>
3. Determinants of Personal Savings: from, <http://repository.kln.ac.lk/bitstream/handle/123456789/16733/J%20of%20Economics.32-43.pdf?sequence=1&isAllowed=y>
4. Dr. Navdeep Kaur(2015):study of savings and investment in India. From: https://www.academia.edu/22721805/a_study_of_saving_and_investment_pattern_of_salaried_class_people_with_special_reference_to_chandigarh_india
5. Economic development, from: https://simple.wikipedia.org/wiki/Economic_development
6. Factors that influence saving levels. From: <https://www.economicshelp.org/blog/146244/economics/factors-that-influence-saving-levels/>
7. Haider Abdul Redha Al-Lawati (2018)importance of saving in Oman , from: www.omanobserver.com/instilling-culture-of-savings-among-the-public/
8. Ibrahim Alomar (2013): Economic Growth and Savings in GCC from: http://www.ijhssnet.com/journals/Vol_3_No_9_May_2013/21.pd
9. Jangili, Ramesh (2011): Causal relationship between saving, investment and economic growth for India,form: https://mpa.ub.uni-muenchen.de/40002/1/MPRA_paper_40002.pdf
10. Jonathan Kriekhaus (2002): Reconceptualizing the Developmental State: Public Savings and Economic Growth. From: <https://www.sciencedirect.com/science/article/abs/pii/S0305750X02000645>
11. Mohan, Ramesh, (2006):. causal relationship between savings and economic growth in countries with different income levels. From: <http://www.accessecon.com/pubs/eb/2006/volume5/EB-05E20002A.pdf>
12. Muhumuza Roland (2018) relationship between saving and economic growth in Uganda Muhmuza Roland, from:<http://makir.mak.ac.ug/bitstream/handle/10570/7146/Muhumuza-cobams-msqe.pdf?sequence=1&isAllowed=y>
13. Nagi Bairamli and Vassilis Kostoglou (2010): The Role of Savings in the Economic Development of the Republic of Azerbaijan, from: https://www.researchgate.net/publication/49609172_The_Role_of_Savings_in_the_Economic_Development_of_the_Republic_of_Azerbaijan
14. Niwanthika, T. (2016). Determinants of Personal Savings: A Review of Literature. Retrieved September 25, 2019, from : <http://repository.kln.ac.lk/bitstream/handle/123456789/16733/J%20of%20Economics.32-43.pdf?sequence=1&isAllowed=y>
15. Nomvuyo Guma and Lumengo Bonga Bonga (2016). The relationship between savings and economic growth at the disaggregated level, from: https://mpa.ub.uni-muenchen.de/72131/1/MPRA_paper_72131.pdf
16. Noriyoshi Hemmi (2007): The long-term care problem, precautionary saving, and economic growth. From: <https://www.sciencedirect.com/science/article/pii/S0164070406000747#>
17. President and Fellows of Harvard (2000): Saving, Growth, and Investment: A Macroeconomic Analysis Using a Panel of Countries. From: <https://www.mitpressjournals.org/doi/abs/10.1162/003465300558731>



18. Reza Najarzadeh, Michael Reed & Mona Tasan (2014): The relationship between savings and economic growth, The case for Iran, form:
http://jibe-net.com/journals/jibe/Vol_2_No_4_December_2014/7.pdf
19. Sajid and Sarfaraz (2008): saving and economic growth in Pakistan: an issue of causality. From :
https://www.jstor.org/stable/25825322?seq=1#page_scan_tab_contents
20. Tarlok Singh (2010): domestic saving cause economic growth A time-series evidence from India. From :<https://www.sciencedirect.com/science/article/pii/S0161893809000830>
21. Would an increase in savings help the economy? from: [https://www.economicshelp.org/blog/7102/economics/would-an-increase-in-savings-helptheeconomy/#targetText= Higher%20 savings%20 can%20help%20finance,more%20to%20firms%20for%20investment](https://www.economicshelp.org/blog/7102/economics/would-an-increase-in-savings-helptheeconomy/#targetText=Higher%20savings%20can%20help%20finance,more%20to%20firms%20for%20investment).