Evaluating the Impact of Financial Banking Development on Economic Growth : An Empirical Investigation in Sultanate of Oman

** Faris Nasif Alshubiri*

Abstract

The aim of this study was to evaluate the impact of financial banking development on economic growth of Sultanate of Oman. The sample selected covered all six banks listed on MSM over the period from 2008 to 2014. The independent variables of financial banking development classified for five groups were management quality, monetary, credit, market and currency ratios, each group measured by two variables. The dependent variables of economic growth were measured by nine variables. Regression test was used and results showed that for all five groups, financial banking development was statistically significant for economic growth at different significant levels, that is, 1%, 5%, and 10% except the monetary ratios on general price index (CPI) and change of production of oil and gas, also, in the market ratios on change of production of oil and gas and (export - import) as percentage of gross domestic product (GDP). Finally, there was no significant impact of management quality ratios on investment expenditure as percentage of GDP and debt to GDP ratio. It is recommended that proper attention is given to size and quality of investments in the market and also, banks should be encouraged to allocate sufficient credit. Future studies can analyze more economic variables that explain both financial and non-financial sectors in light of many carnages of environment to diagnose obstacles to economic growth.

Key words : **financial development, economic growth, banks, empirical analysis of Oman**

JEL Classification : D22, G21, N2, O1

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Financial system consists of financial institutions, banks, and financial markets, where the financial system contributes to the distribution and growth of resources effectively between sectors in an economy. This growth improves the capital market as the function of the financial system is the production to have capital value and then control of investment, facilitation of trade, reduction in risk operations, and transfer of savings between markets effectively. Many studies such as Midrigan and Xu (2014) and Akinlo and Egbeyunde (2010) focused on financial development, but in different degrees in terms of depth in the analysis of financial development for business sectors, where a lot of direct and indirect financial services contribute to the financial development of the firms' operations. Strong competition in the sector is also a strong reason that contributed to the evaluation of financial performance of firms in terms of this study dealing with the banking sector, which is the main pillar in the economy of any country and contributes to the economic development at the country level where the banking sector has recently witnessed strong competition between local and foreign banks in terms of many financial development indicators, which can be reflected in the country's economic growth, especially in light of the new BASEL III, which banks must adhere to, particularly with regard to capital adequacy (Demirgüç-Kunt & Levine, 2008).

**Faculty,* Department of Accounting and Finance, College of Commerce and Business Administration, Dhofar University, Sultanate of Oman. Email: fa_shub@yahoo.com

The degree of depth in the financial analysis of companies and banks contributes to diagnosis of the economic situation in the country by determining the size of available assets and the ability to employ and distribute them optimally, which promotes economic growth through GDP growth of the country, as the difference in the size of assets leads to a difference in size of investments and savings for banks that contribute to the growth of a country's economic indicators.

The important role of intermediaries is to distribute resources and added economic value in the market. So, the first step begins with collection of information for investment, determining the size and cost of investment, and then allocating these resources and control to maintaining these resources by efficiency method of financial intermediaries to increase cost reductions (Hsueh, Hu, & Tu, 2013).

It should be noted that financial intermediaries and banks bear the degree of risk in dealing with firms through loans, where these financial intermediaries operate in the transfer of this risk to other destinations, and this is done mostly by insurance firms, and it can be said that the mediators are working within the framework of the concept of financial innovation, which is reflected on economic development (Brodie, Winklhofer, Coviello, & Johnston, 2007).

Government restrictions play a role in achieving economic growth through flexibility to encourage investors and firms to implement projects, where the Oman government recently started worthwhile industrial projects in many cities, especially in light of decrease in oil prices, which is the main source of revenue for Oman. In recent years, it became necessary to work on the development of all industrial, service, and financial sectors. Also, information and communication technology has become an important element in building banks on the basis of future strategies and adapt to competitors in the market to achieve high market share that contributes to the development of economic growth (Pyun, Scrugs, & Nam, 2002).

Therefore, the aim of this paper is to diagnose financial banking development in Oman and show how this sector impacts the economic growth. The contribution of this study is to analyze the financial banking development and interaction with different factors - management quality, monetary, credit, market and currency, ratios on economic growth indicators, which build strong political relations with stability of laws, increase international trading, and decrease the risk of investments that explain the positive picture of GDP and employment rate.

Theoretical Framework

This section explains two topics:

(1) Literature Review : Beck and Levine (2004) indicated that there was a relationship between the stock price of firms and performance of banks that provided many of the financial quality services, which positively affected economic growth. Hernando and Nieto (2005) noted that the productivity of banks and their profitability depended on revenue from non-interest by using technology, that is, it contributed to better and accurate provisioning of financial services by reducing operational costs, increase in employment, effective and positive increase in economic growth. Kenourgios and Samitas (2007) pointed out that the long-term loans granted by banks to firms positively contributed to economic growth. It works on building long-term investments and a strong foundation in the market.

The study by Egbetunde (2009) said that many countries weaken during a financial crisis. A weak financial system affects a country's economy, unlike developed countries, where the financial system contributes effectively in the evolution of building the economy of the country and there were many examples of financial crisis in the period that had occurred in the world. Midrigan and Xu (2014) indicated that in addition to the size of loans granted to firms and distribution and allocation on different investments in the market, these issues contributed efficiently and effectively to rapid economic growth in the market. Akinlo and Egbeyunde (2010) pointed out that the evolution of the financial system was in the flexibility of policies at the macroeconomic level

and government restrictions, which mainly worked on the development and growth of the economy in different countries depending on the economic growth of policies and procedures in the country.

Aurangzeb (2012) explained that the exploitation of banks for deposits for investments contributed to increased profitability, leading to improved economic growth indicators in addition to the use of information technology in most banking operations that created a competitive advantage for banks in the market. It reflected positively on the country's economy. Agwu (2013) explained the obstacles in implementation of banking operations, especially, electronic operations, but these operations helped banks to work efficiently, contributed to reduction of operational costs, thereby leading to improved economic growth rates. Recently, Hsueh et al. (2013) indicated that economic growth of any country was measured by the degree of vulnerability of the economy and how it interacted with financial systems and market indicators. Abida, Sghaier, and Zghidi (2015) pointed out that there was a strong positive relationship between financial development and economic growth due to the extent and scale of economic freedom in the country and the degree of flexibility of laws and regulations that allowed for many local and foreign investments to start their projects easily.

Kuznetsova and Kuznetsova (2015) noted that economic security was an important factor in stimulating economic activity and encouraging investment, whether local or foreign, and it increased economic growth. Venkata Raman, Srinidhi, and Chandramouli (2016) said that leadership and policies were important factors in achieving economic growth to attract foreign investment, which was a result of economic stability in the country. Tripathi, Singh, and Singh (2016) showed that the stock market played an important and prominent role in the economic growth as the indicators of industrial production had a significant statistical effect on financial market movements of Indian indices.

(2) The Financial Development Banking Industry and Economic Growth in Oman : The relationship between financial development and economic growth is linked to savings and investment indicators. In other words, investments start from firms that borrow from banks or banks intervene as brokers to select investment projects and study all the surrounding risks and work on the distribution of these risks between various investments and oversight of corporate behavior through various borrowings from banks. In this way, firms and banks try to achieve greater returns contributing to the economic growth in the market. The various financial indicators of banks are considered as an indication that the bank is working consistently with the existing market of financial resources and ,therefore, firms are working with banks to build the country's economy. As the size of credit granted may contribute to maintaining the value of the local transactions in an economy, these positive effects reflect market share indicators (Anyasi & Otubu, 2009).

Financial institutions also contribute through financial channels in the distribution of resources among different investments in a market, where information and communication technology contribute to economic growth through e-business at the bank, where the bank offers service to customers within 24 hours. So, the bank is working to create continuous opportunities in the market in an integrated manner with foreign banks. They work together to improve the economic growth indicators for granting investments to the business sector (Salawu, 2007).

Hence, we see that there are benefits for the economy, customers, and banks in adopting banking technology. The benefit for the customer is the speed and accuracy of the service, while the benefit for banks is in improving competitive position in the market and increase in profit through cost reduction for the economy of the country. Banks positively support firms through loans, and the lowest cost comes to reflect on the country's economic growth. A review of literature and analysis of the financial environment in the Omani market revealed that Omani banks supported firms, which was reflected in economic growth, but also noted that there were challenges in the Omani market in terms of global technology used in banks to carry out operations, which strongly competed to stay. So, the firms must work more coherently with the public and private sector to facilitate legislation and laws in relation to commercial transactions. As for the opportunities that might be available, the Sultanate of Oman has the advantage of environmental stability, and the government can contribute to increased domestic and foreign

investments, which creates many incentives for investment cooperation between countries through open economy and increased employment, improved infrastructure, sharing of experiences and opportunities to increase and improve the industrial sector, especially in the context of low global oil prices. It was noted in the *Annual Statistical Bulletin* of Central Bank of Oman (2014) that decline in oil prices led to increased government spending and control of the tools of monetary policy to maintain financial performance where government deposits accounted for 35% of total deposits of banks, and personal loans accounted for 40% of total loans of banks. Thus, Omani banks maintained the ratio of deposits and loans despite a drop in oil prices and impact on macroeconomic level.

Methodology of the Study

(i) The Variables and Model of the Study : The model of this study was developed on the basis of 10 independent variables that represent the five groups: management quality, monetary, credit, currency, and market ratios, and nine dependent variables that explain the economic growth of Sultanate of Oman in the banking sector. The equation is presented below:

$$\textit{Economic Growth Indicators } (EGI_{it}) = \alpha_0 + \beta_1 EX/EM_{it} + \beta_2 PRO/EMP_{it} + \beta_3 BMG_{it} + \beta_4 QMTGDP_{it} + \beta_5 BCT GDP_{it} + \beta_6 BCTNOGDP_{it} + \beta_7 MM_{it} + \beta_8 SMCTGDP_{it} + \beta_9 CWPTGDP_{it} + \beta_{10} CWPTBM + \epsilon_{it}$$

Notes:

Ten independent variables of financial banking development were classified for five groups and each group measured has two measures related to management quality ratios as given here:

Expenses/Employee (*EX/EM*), profit/ employee (*PRO/EMP*) related to management quality ratios, broad money (*M2*) growth (*BMG*), quasi-money to GDP (*QMTGDP*) related to monetary ratios , bank credit to GDP (*BCT GDP*), and bank credit to non oil GDP (*BCTNOGDP*) related to credit ratios , money multiplier *(MM)*, and stock market capitalization to GDP ratio *(SMCTGDP)* related to market ratios ; and finally, currency with public to GDP *(CWPTGDP)*, and currency with public to broad money *(CWPTBM)* related to currency ratios.

Nine dependent variables are : annual growth of GDP of current market prices , general price index CPI, percentage change of production of oil and gas, average of Oman's oil prices, fiscal balance as percentage of GDP , investment expenditure as percentage of GDP , debt to GDP ratio, (Export - import) as percentage of GDP, and total non oil exports as percentage of GDP.

(ii) Population and Sample Selection : This paper explained and analyzed the impact of development of banking sector on economic growth of Sultanate of Oman over the period from 2008 to 2014. Six banks were selected to represent the banking sector. All economic and banking variables of the study were selected from annual company guides (2013 & 2015) from Muscat Security Market (MSM) and *Annual Statistical Bulletin* (2014) from Central Bank of Oman.

Analysis and Results

(i) Descriptive Statistics Analysis : The statistical descriptive analysis in Table 1 shows 10 independent variables classified into five groups of the study related to management quality, market, credit, currency, and monetary ratios over the period from 2008 - 2014 in the Sultanate of Oman. The results show that there is a gap between the minimum and maximum number for management quality ratios related to the two variables, expenses per employee and profit per employee ; and also, on monetary ratios in broad money (*M*2) growth variable that shows

Table 1. The Statistical Descriptive Analysis of Independent Variables

Independent Variables (R.O. Million)	Minimum	Maximum	Mean	Std. Deviation
Financial Ratios				
Expenses / Employee *(EX/EM)*	-65.53	-8.34	-36.2572	11.86584
Profit/ Employee *(PRO/EMP)*	-4.81	54.19	27.2993	14.35711
Monetary Ratios				
Broad Money *(M2)* growth *(BMG)*	4.70	23.10	12.3857	5.34646
Quasi-money to GDP *(QMTGDP)*	23.80	29.80	26.4429	1.93014
Credit Ratios				
Bank credit to GDP *(BCT GDP)*	39.60	57.10	49.1857	5.23108
Bank credit to non oil GDP *(BCTNOGDP)*	78.90	94.80	87.3571	4.77152
Market Ratios				
Money Multiplier *(MM)*	3.70	5.60	4.5286	0.67509
Stock market capitalization to GDP ratio *(SMCTGDP)*	33.90	49.00	43.2286	5. 48035
Currency Ratios				
Currency with public to GDP *(CWPTGDP)*	2.70	3.80	3.2571	0.32844
Currency with public to broad money *(CWPTBM)*	7.90	8.70	8.3714	0.29490

Table 2. The Statistical Descriptive Analysis of Dependent Variables

Dependent Variables	Minimum	Maximum	Mean	Std. Deviation
Annual growth of GDP of current market prices (R.O. Million)	-20.60	45.00	11.5571	18.73037
General price index CPI (R.O. Million)	100.00	139.20	118.7286	15.97163
Percentage change of production of Oil and Gas (Million Barrels)	0.20	7.10	4.1714	2.51535
Average Oman's oil prices (US $/ Barrel)	56.67	109.61	93.6671	18.28800
Fiscal balance as percentage of GDP(R.O. Million)	-3.70	0.30	-1.1429	1.55754
Investment expenditure as percentage of GDP(R.O. Million)	9.80	14.50	11.2429	1.50983
Debt to GDP ratio (R.O. Million)	4.10	5.60	4.8286	0.42155
[Export - import] as percentage of GDP(R.O. Million)	94.40	117.70	103.1714	7.16367
Total non oil exports as percentage of GDP(R.O. Million)	14.90	24.40	20.2857	2.75721

that the banks should adopt awareness program for customers to increase savings and deposits. This would enhance the profit and portfolio investment in a bank. This issue is reflected in the monetary policy of the country and increased broad money *M*2. Finally, there is stability in policy of banking system of Oman in credit ratios. This means that the banks follow the conservative strategy for different loans, which leads to a balance in the market and currency ratios.

The Table 2 explains nine dependent variables of economic growth over the period from 2008 - 2014. The differences result in numbers of the annual growth of GDP of current market prices variable explained by the growth in different industrial economic sectors that reflected in the GDP. The results show that there is a gap between the minimum and maximum number in both variables, that is, change of production of oil and gas variable and average Oman's oil prices variable. This is an issue because the changes in global oil prices which affected Oman government's revenues prompted the government to improve its performance in the industrial

sector by increasing investments and financing through the banking sector with flexible guarantees, which strengthened the economic performance of the government.

(ii) Regression Analysis and Discussion : The Table 3 focuses on the regression analysis at different significant levels, that is, *significance at p <0.10, ** significance at p < 0.05, and *** significance at p < 0.01 for each group of independent variables and annual growth of GDP on current market prices. It can be seen that there is a significant impact of all groups on both two variables except management quality and currency ratios groups' as only one variable is significant, so the alternative (positive) hypothesis for eight variables is accepted. The significant t - values are 2.137, 11.519, -12.363, -9.232, -3.751, -6.516, -7.308, and -7.143, where the significance level is high at 1% for all variables, except expenses / employee variable *(EX/EM)*, which is significant at the 5% level, where R (correlation) is between 32% and 89%. These results show that all the variables work together efficiently and effectively in the market and contribute to an increase in GDP, which is considered as the most influential economic variable. The results of this study are consistent with the study results of Beck and Levine

Table 3. Regression Analysis of Each Group of Independent Variables and Annual Growth of GDP of Current Market Prices

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Unstandardized Coefficient	
						St-Error	B
Management	*EX/EM*	0.320	0.102	2.137	0.039**	0.236	0.505
Quality Ratios	*PRO/EMP*	0.095	0.009	-0.601	0.551	0.205	-0.123
Monetary	*BMG*	0.877	0.768	11.519	0.000***	0.267	3.071
Ratios	*QMTGDP*	0.890	0.793	-12.363	0.000***	0.699	-8.639
Credit	*BCT GDP*	0.825	0.681	-9.232	0.000***	0.320	-2.954
Ratios	*BCTNOGDP*	0.510	0.260	-3.751	0.001***	0.534	-2.002
Market Ratios	*MM*	0.718	0.515	-6.516	0.000***	3.055	-19.909
	SMCTGDP	0.765	0.572	-7.308	0.000***	0.354	-2.584
Currency Ratios	*CWPTGDP*	0.749	0.561	-7.143	0.000***	5.978	-42.696
	CWPTBM	0.151	0.023	0.965	0.340	9.928	9.577

Table 4. Regression Analysis of Each Group of Independent Variables and General Price Index CPI

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Unstandardized Coefficient	
						Std. Error	B
Management	*EX/EM*	0.400	0.160	2.762	0.009***	0.195	0.539
Quality Ratios	*PRO/EMP*	0.483	0.234	-3.491	0.001***	0.154	-0.538
Monetary	*BMG*	0.009	0.000	0.059	0.953	0.472	2.792E-2
Ratios	*QMTGDP*	0.116	0.013	-0.736	0.466	1.300	-0.957
Credit	*BCT GDP%*	0.487	0.237	-3.522	0.001***	0.422	-1.485
Ratios	*BCTNOGDP%*	0.634	0.402	-5.184	0.000***	0.409	-2.122
Market Ratios	*MM*	0.309	0.095	2.052	0.047**	3.558	7.300
	SMCTGDP	0.132	0.017	-0.839	0.406	0.457	-0.383
Currency Ratios	*CWPTGDP*	0.559	0.313	-4.265	0.000***	6.375	-27.188
	CWPTBM	0.573	0.328	-4.423	0.000***	7.018	-31.036

(2004). The current study shows the impact of variables in the market on the GDP growth rate in the economy while the study by Beck and Levine (2004) indicated the impact of stock prices on economic growth rate.

The regression analysis of each group of independent variables and general price index *(CPI)* is shown in the Table 4 and a significant impact is seen on all groups except on monetary group variables and one variable in the market ratio group. So, I accept the alternative (positive) hypothesis of seven variables. The significant *t* - values are 2.762, - 3.491,- 3.522,- 5.184, 2.052,- 4.265, and - 4.423, where all variables have high significance level at 1%, except money multiplier, which is 5%, where *R* (correlation) is between 30% and 63%. These results explain that the quality of credit policy in banks reflects positive work in the market, which encourages firms to increase their investments and increase their number of customers, and thereby, it contributes to increased market share of banking in the financial sector. The results of this study are consistent with those of Hernando and Nieto (2005) in terms of the nature of production and financial services provided that determine cost and thus affect consumption or service request, thus achieving an increase in the economic growth index.

The Table 5 tests each group of independent variables and percentage change in production of oil and gas and it can be seen that there is a significant impact of management quality, credit, and currency group's ratios except monetary and market group's ratios. Thus, the alternative (positive) hypothesis is accepted in case of six variables. The significant *t*- values of variables are 3.604, -3.066, - 4.166,-11.883, -5.511, and -10.626. All variables have high significance level at 1%, where *R* (correlation) is between 43% and 88%. These results show that there is a relationship between the quality of administration & bank credit and currency in oil and gas production volume control, where in spite of lower oil prices, the government has supported all sectors of the economy at the state level to maintain positive results and rate of economic growth. The results of this study are consistent with those of Midrigan and Xu (2014) in terms of changes in production, distribution, and allocation of resources, which are important factors in achieving effectiveness and efficiency in work and lead to economic growth.

The Table 6 shows the impact of 10 independent variables by five groups on average Oman's oil prices as dependent variable and the results show that these are significant in case of variables of all groups with the exception of three variables - *EX/EM , BCT GDP,* and *CWPTGDP.* As per the results, the alternative (positive) hypothesis in case of seven variables is accepted. The significant *t*-values of the variables are 2.360, 3.828, - 4.941, 2.495, - 2.641,- 4.431, and 13.761 at the significance level of 1% and 5%, where *R* (correlation) is between 35% and 90%. These results can explain the situation through and after the global crisis. Oil prices declined, so the Omani government paid more attention to the quality of services provided by the financial sector in order to

Table 5. Regression Analysis of Each Group of Independent Variables and % Change of Production of Oil and Gas

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						St-Error	B
Management Quality Ratios	*EX/EM*	0.495	0.245	3.604	0.001***	0.029	0.105
	PRO/EMP	0.436	0.190	-3.066	0.004***	0.025	-7.64E-02
Monetary Ratios	*BMG*	0.025	0.001	-0.157	0.876	0.074	-1.17E-02
	QMTGDP	0.107	0.012	-0.683	0.499	0.205	-0.140
Credit Ratios	*BCT GDP*	0.550	0.303	-4.166	0.000***	0.063	-0.265
	BCTNOGDP	0.883	0779	-11.883	0.000***	0.039	-0.465
Market Ratios	*MM*	0.061	0.004	-0.385	0.703	0.588	-0.226
	SMCTGDP	0.071	0.005	-0.451	0.655	0.072	-3.26E-02
Currency Ratios	*CWPTGDP*	0.657	0.432	-5.511	0.000***	0.913	-5.030
	CWPTBM	0.859	0.738	-10.626	0.000***	0.690	-7.329

Table 6. Regression Analysis of Each Group of Independent Variables and Average of Oman's Oil Prices

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						St-Error	B
Management Quality Ratios	*EX/EM*	0.210	0.044	-1.359	0.182	0.238	-0.324
	PRO/EMP	0.350	0.122	2.360	0.023**	0.189	0.445
Monetary Ratios	*BMG*	0.518	0.268	3.828	0.000***	0.463	1.771
	QMTGDP	0.616	0.379	-4.941	0.000***	1.181	-5.833
Credit Ratios	*BCT GDP*	0.160	0.023	-1.028	0.310	0.546	-0.561
	BCTNOGDP	0.367	0.135	2.495	0.017**	0.564	1.406
Market Ratios	*MM*	0.385	0.148	-2.641	0.012**	3.953	-10.437
	SMCTGDP	0.574	0.329	-4.431	0.000***	0.432	-1.915
Currency Ratios	*CWPTGDP*	0.025	0.001	-0.159	0.875	8.801	-1.398
	CWPTBM	0.900	0.826	13.761	0.000***	4.095	56.347

Table 7. Regression Analysis of Each Group of Independent Variables and Fiscal Balance as % of GDP

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						St-Error	B
Management Quality Ratios	*EX/EM*	0.313	0.098	2.085	0.043**	0.020	4.110E-02
	PRO/EMP	0.001	0.000	-0.009	0.993	0.017	-1.50E-04
Monetary Ratios	*BMG*	0.412	0.170	2.858	0.007***	0.042	0.120
	QMTGDP	0.939	0.881	-17.249	0.000***	0.044	-0.758
Credit Ratios	*BCT GDP*	0.775	0.601	-7.763	0.000***	0.030	-0.231
	BCTNOGDP	0.403	0.162	-2.784	0.000***	0.047	-0.132
Market Ratios	*MM*	0.455	0.207	-3.234	0.002***	0.325	-1.050
	SMCTGDP	0.579	0.335	-4.489	0.000***	0.037	-0.165
Currency Ratios	*CWPTGDP*	0.716	0.513	-6.486	0.000***	0.523	-3.395
	CWPTBM	0.252	0.064	1.648	0.107	0.808	1.332

improve the quality and size of bank credit in order to maintain growth in profitability, which led to improvement in the market stock prices of banks. The results of this study show the importance of market activities which interact with each other to achieve economic growth, especially for Oman, which depends on the prices of oil for government revenues. This result is consistent with the study results of Hsueh et al. (2013) in terms of economic growth that is achieved through efficient and effective interaction between economic activities.

The Table 7 shows the regression analysis of each group of independent variables and fiscal balance as percentage of GDP and there is a significant impact on all five groups and all variables except profit per employee *(PRO/EMP)* and currency with public to broad money *(CWPTBM)* variables. Hence, we accept the alternative (positive) hypothesis for eight variables. The *t* - values of significant variables are 2.085, 2.858, -17.249, -7.763, -2.784, -3.234, - 4.489, and - 6.486 at significance levels of 1% and 5%, where *R* (correlation) is between 31% and 93%. These results show that the government used fiscal and monetary policy in a balanced way to control many economic variables. The results of the current study are consistent with the study results of Akinlo and Egbeyunde (2010) in terms of flexibility in polices and financial system positively affecting the economic development and growth in economic activities.

The Table 8 focuses on the regression analysis of each group of independent variables and investment expenditure as % of GDP and finds a significant impact on all groups except management quality group and one

Table 8. Regression Analysis of Each Group of Independent Variables and Investment Expenditure as % of GDP

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						St-Error	B
Management Quality Ratios	*EX/EM*	0.024	0.001	-0.149	0.882	0.020	-3.00E-03
	PRO/EMP	0.250	0.063	-1.635	0.110	0.016	-2.63E-02
Monetary Ratios	*BMG*	0.641	0.411	-5.286	0.000***	0.034	-0.181
	QMTGDP	0.833	0.695	9.539	0.000***	0.068	0.652
Credit Ratios	*BCT GDP*	0.466	0.217	3.332	0.002***	0.040	0.135
	BCTNOGDP	0.013	0.000	-0.084	0.933	0.050	-4.22E-03
Market Ratios	*MM*	0.679	0.461	5.855	0.000***	0.260	1.519
	SMCTGDP	0.629	0.396	5.119	0.000***	0.034	0.173
Currency Ratios	*CWPTGDP*	0.349	0.122	2.356	0.023**	0.681	1.605
	CWPTBM	0.638	0.407	-5.241	0.000***	0.623	-3.267

Table 9. Regression Analysis of Each Group of Independent Variables and Debt to GDP ratio

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						St-Error	B
Management Quality Ratios	*EX/EM*	0.121	0.015	-0.770	0.446	0.006	-4.29E-03
	PRO/EMP	0.067	0.004	-0.425	0.673	0.005	-1.97E-03
Monetary Ratios	*BMG*	0.898	0.806	-12.895	0.000***	0.005	-7.08E-02
	QMTGDP	0.844	0.712	9.944	0.000***	0.019	0.184
Credit Ratios	*BCT GDP*	0.647	0.419	5.370	0.000***	0.010	5.216E-02
	BCTNOGDP	0.252	0.063	1.644	0.108	0.014	2.223E-02
Market Ratios	*MM*	0.686	0.471	5.965	0.000***	0.072	0.428
	SMCTGDP	0.836	0.703	9.726	0.000***	0.007	6.448E-02
Currency Ratios	*CWPTGDP*	0.538	0.289	4.032	0.000***	0.171	0.690
	CWPTBM	0.464	0.215	-3.314	0.002***	0.200	-0.663

variable in credit ratio group *(BCTNOGDP)*. So, we accept the alternative (positive) hypothesis for seven variables. The *t* - value significant variables are -5.286, 9.539, 3.332, 5.855, 5.119, 2.356, and -5.241 at high significant level of 1% except currency with public to GDP variable at significant level of 5%, where *R* (correlation) is between 34% and 83%. These results show that the quality and size of the appropriate credit balance in the market contributes to obtaining market share, which affects the volume of investment in a positive way through loans granted to firms that have contributed to economic growth. The current study results are consistent with the study results of Aurangzeb (2012) in terms of investment and technology used to achieve competitive advantage for the banking sector and the impact on increased profitability to achieve economic growth.

The Table 9 focuses on the regression analysis of each group of independent variables and debt to GDP ratio and finds a significant impact on all groups except management quality group and one variable of credit ratios related to bank credit to non oil GDP *(BCTNOGDP)*, so these results accept the alternative (positive) hypothesis of seven variables .The significant *t* - value variables are -12.895, 9.944, 5.370, 5.965, 9.726, 4.032, and -3.314 at high significant level at 1%, where *R* (correlation) is between 46% and 89%. The results explain that the evolution

Table 10. Regression Analysis of Each Group of Independent Variables and Export - Import as % of GDP

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						Std. Error	B
Management Quality Ratios	*EX/EM*	0.276	0.076	-1.815	0.077*	0.092	-0.167
	PRO/EMP	0.428	0.184	2.999	0.005***	0.071	0.214
Monetary Ratios	*BMG*	0.023	0.001	-0.147	0.884	0.212	-3.10E-02
	QMTGDP	0.269	0.072	-1.765	0.085*	0.565	-0.997
Credit Ratios	*BCT GDP*	0.153	0.023	0.977	0.334	0.214	0.209
	BCTNOGDP	0.504	0.254	3.686	0.001***	0.205	0.756
Market Ratios	*MM*	0.063	0.004	-0.398	0.693	1.675	-0.666
	SMCTGDP	0.065	0.004	-0.409	0.685	0.206	-8.44E-02
Currency Ratios	*CWPTGDP*	0.276	0.076	1.818	0.077*	3.314	6.025
	CWPTBM	0.847	0.717	10.068	0.000***	2.043	20.570

Table 11. Regression Analysis of Each Group of Independent Variables and Total Non Oil Exports as % of GDP

Group	Independent Variables	*R* (Correlation)	R^2	*t* - Value	Significant	Un standardized Coefficient	
						St-Error	B
Management Quality Ratios	*EX/EM*	0.464	0.215	-3.313	0.002***	0.033	-0.108
	PRO/EMP	0.444	0.197	3.133	0.003***	0.027	8.525E-02
Monetary Ratios	*BMG*	0.599	0.358	-4.725	0.000***	0.065	-0.309
	QMTGDP	0.474	0.225	3.409	0.000***	0.199	0.678
Credit Ratios	*BCT GDP*	0.817	0.667	8.953	0.000***	0.048	0.430
	BCTNOGDP	0.892	0.796	12.492	0.000***	0.041	0.516
Market Ratios	*MM*	0.286	0.082	1.885	0.067*	0.619	1.167
	SMCTGDP	0.632	0.400	5.162	0.000***	0.062	0.318
Currency Ratios	*CWPTGDP*	0.853	0.727	10.317	0.000***	0.694	7.157
	CWPTBM	0.502	0.252	3.667	0.001***	1.279	4.690

of financial variables contribute to reducing government debt through investments in the market. The results of the present study are consistent with those of Egbetunde (2009) in terms of the financial system, the strength of the key factors that put a barrier in front of a financial crisis, and therefore, the size of debt in the country's economy. These are concerns of countries in achieving economic growth.

The Table 10 focuses on the regression analysis of each group of independent variables and (Export - import) as percentage of GDP and finds a significant impact on management quality and currency ratios groups for both the two variables. However, in credit and monetary groups, it is significant for only one variable. Finally, there is no significant impact related to market ratios group. The significant level is different at 1% and 10%, so these results accept the alternative (positive) hypothesis of six variables. The significant *t* - values are -1.815, 2.999, -1.765, 3.686, 1.818, and 10.068, where *R* (correlation) is between 26% and 84%. These results show that the availability of a number of financial variables contributes in a positive way to the ratio of net exports in the country and thus, reflects economic growth.

The Table 11 focuses on the regression analysis of each group of independent variables and total non oil exports as percentage of GDP and here, we can see the significant impact on all five groups, that is, management quality,

monetary, credit, market, and currency ratios at high significance level of 1% and one variable *(MM)* is significant at level of 10%. Hence, we accept the alternative (positive) hypothesis for all 10 variables. The significant *t* - values are -3.313, 3.133, - 4.725, 3.409, 8.953, 12.492, 1.885, 5.162, 10.317, and 3.667 where *R* (correlation) is between 28% and 89%. These results show that the financial development in the country has a significant impact on exports and thus, on the trade balance of the country, which adds economic value to GDP. However, the country policy in foreign trade is a key factor in determining economic growth and the impact of these results in economic terms are consistent with those of a study by Abida et al. (2015), which shows that economic freedom and restrictions on doing business in a country plays a vital role in economic development.

Research Implications

The results and interpretations show that the Omani financial environment is flexible and there is a prominent role of the banking sector in granting the loans to firms to achieve economic development. Also, e-banking plays a vital role in economic development through electronic services and this result is the same as that obtained by the studies of Kenourgios and Samitas (2007) and Agwu (2013). Also, the Government of Oman always works to continuously support different sectors through legislation that works to encourage investment and this result is consistent with the studies of Akinlo and Egbeyunde (2010) and Abida et al. (2015).

Conclusion

This study aims to shed light on the Omani banking financial sector in all its aspects as it is strategic in the economy of the country and aims to develop wealth and promote economic growth indicators through the interactions of different sectors.

This study analyzed the impact of banking financial development measured by five main groups, that is, management quality, monetary, credit, market, and currency ratios. Each group was measured by two variables to show the impact on economic growth measured by nine variables of Sultanate of Oman as the dependent variable.

The results of the regression tests show that all independents five groups measured financial banking development as statistically significant for economic growth at significance levels of 1%, 5%, and 10%, except monetary ratios group, which is insignificant for two dependent variables at general price index (CPI) and change of production of oil and gas; also, market ratios group are insignificant for two dependent variables, that is, change of production of oil and gas and (export - import) as percentage of GDP. Finally, there is no significant impact of management quality ratio group on dependent variables - investment expenditure as percentage of GDP and debt to GDP ratio.

The economic growth of Oman is influenced by the growth of the financial sector, where the banking sector is an important and strategic sector and the main engine of the indicator of economic development. The results show that the quality of management and administrative practices plays a significant role in determining flexible credit policy for the banking sector and keeping balance of money supply in the country. This contributes positively to GDP, which allows firms cooperating with the banking sector continuity and staying in the market as a strong competitor. I recommend paying attention to the size and quality of investments in the market, so that it reflects positively and effectively on economic growth, while working in an integrated manner with all the financial and non-financial sectors to improve economic growth indicators. This would also encourage banks to increase investments based on flexible laws and legislation to help banks in efficient allocation of credit. Future studies can analyze more economic variables as dependent variables and also analyze the impact of both financial and non-financial sectors in light of many carnages of the environment to diagnose obstacles to economic growth.

Limitations of the Study and Scope for Further Research

The time period of the study is one of the limitations of this study as data is not available for earlier period. Future studies can take advantage of these variables for re-analyzing and comparing with other variables to find the effect of the most influential variable in the economic growth variables. They can also apply different statistical tests to obtain different results.

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