e-ISSN : 2347 - 9671 p- ISSN : 2349 - 0187

Impact Factor : 0.998

EPRA INTERNATIONAL JOURNAL OF ECONOMIC AND BUSINESS REVIEW

www . epratrust.com

December 2014 Vol - 2 Issue- 12

IMPACT OF FINANCIAL INTERMEDIATION DEVELOPMENT ON ECONOMIC GROWTH

Aysha Noor[1] & Zaheer Abbas[2]

[1.]Aysha Noor, Ph. D scholar, Faculty of management sciences, International Islamic University Islamabad, Pakistan.

[2.]Dr. Zaheer Abbas, Assistant Professor, Head of Department, Faculty of management sciences, International Islamic University Islamabad, Pakistan.

ABSTRACT

There are profound changing's in the developing and developed countries after the development of the financial intermediation. Therefore this paper is to empirically investigate the impact of financial development on economic growth by utilizing the large panel data of seventeen developed and developing countries for period of 1961 to 2011. The main findings suggest negative effect of financial development on economic growth and robustness proves the main findings. The results support for further analysis of the factors which contributes to the existence of financial intermediaries' development in the presence of its negative impact on economic growth.

KEY WORDS: Economic Growth; Financial Development, Investment.

1. INTRODUCTION

The financial intermediation development plays a vital role in the complex globalized financial system. It acts as an active participant in channelizing funds from surplus agents to deficit agents. This activity is a crucial for economic growth suggested by Schumpeter (1911). The financial intermediaries are in a better position to identify and avail the investment opportunities, play the role of savings mobilization, facilitating innovation and better ability to take risk. The relationship between the economic growth and financial intermediaries' development always remain an important issue of economic debate. This debate is not just limited to a specified period of time such as the pioneers who suggested that financial intermediation development leads to economic growth includes Schumpeter (1911),

Goldsmith (1969), Mckinnon and Shaw (1973).

This debate becomes the controversial issue by study of Robinson (1952) that economic growth leads to financial development. The debate of this relationship becomes more apparent when Patrick (1966) added endogenous relationship between growth and finance. Patrick (1966) developed two possible hypotheses that are supply leading and demand following hypothesis. The supply leading hypothesis suggested that in the early stages of growth the financial development induces capital formation. The financial development as identified by Schumpeter (1911) leads to identifying and availing new investment opportunities and encourages innovation causes growth. The supply leading hypothesis suggested that the growth creates the demand for financial development.

The fourth most important argument is based on financial repression model suggested negative effects of ceiling on deposits and interest rates on mobilization of savings or availability of reallocated funds developed by McKinnon and Shaw (1973). The model suggested that due to these negative effects there is a reduction in financial deepening that leads to reduction in growth. The debate was gone above the endogeneity relationship to changing relationship overtime by the study of Trew (2008). Trew (2008) argued that the finance and growth relationship is not static but it changes overtime due to development of an economy or because of exogenous reasons. The study of Giannopoulos (2006) suggested that there is no relationship between these two economic agents by examined three countries (Sweden, Norway and Finland).

The researches so far are providing contradicting results and economic debate is not just limited to Schumpeter (1911) argument that financial development leads to economic growth or Robinson (1952) argument that economic growth leads to financial development. But the endogenous relationship and overtime changing relationship is also part of this debate. Therefore the existing study is carried out

- To empirically investigate the nature relationship between financial development and economic growth.

The research is a contribution towards the existing literature as it carried out on the large size balanced panel data comprises of seventeen countries including eleven developing countries and six developed countries. To analyze the said relationship the data comprises of period from 1961 to 2011. The study is an addition towards the existing literature as it includes dynamics of developing and developed countries. The study is beneficial for the policy makers and the foe the academicians as it provide insight into the relationship between the two variables both in developing andf developed countries.

2. REVIEW OF LITERATURE

2.1. Financial intermediation development and Economic Growth:-

Benhabib and Spiegel (2000) indicated the correlation between the financial development indicators with both growth and investment. However empirical evidence suggested that the indicators correlated to growth are different from the investment correlated indicators. Hao (2003) empirically verified the existence of economic growth as a result of financial intermediation development in china. The financial intermediaries finance the budget deficit and mobilize savings for economic growth but reallocation of funds is considered as inefficient in this economic growth process. However study of Badar and Qarn (2006) found weak support for the long

term relationship between financial intermediaries' development and economic growth.

Cheng and Degryse (2007) argue that the banks in due financial reforms of banking industry have stronger impact on the economic growth in China than the non-bank financial institutions. A'vila (2007) empirical evidence suggested positive impact of banking harmonization on growth by enhancing financial intermediatiaries efficiency. The robustness of results are by controlling the other growth determinents including unobserved hetrogenity, potential simultaneity bias and effects of business cycles. Deidda and Fattouh (2008) suggested that the financial intermediation development and development of stock market both have significant optimistic impact on the economic growth but the impact likely to be reduces by higher level of capital markets development.

Fung (2009) empirically found the conditional convergence exist in middle and high income countries. The mutual reinforcing correlation between economic growth and financial intermediaries' development is stronger in early stages of growth and the relationship reduces when they attained the sustainable economic growth. The study suggested that the low income countries having sound financial system are more likely to grasp the growth patterns of middle and high income countries than the countries with less developed financial system. These findings suggest great divergence between the poor and rich countries growth patterns and human capital is considered as more important factor in early stages of economic growth but afterwards economic freedom become more important. Hassan and et al (2009) study suggested the empirical association between the growth and explanatory variables includes financial market developments, legal environments, property rights and political pluralism.

Katircioglu and Katiricioglu (2009) suggested that there is bidirectional relational in the Euro area between the credit growth and per capita GDP. Adamopoulos (2010) argued that there is bidirectional causal relationship exists between the economic growth and financial intermediation development. Koetter and Wedow (2010) by using bank specific efficiency estimates for determining the bank quality in Germany. The study suggested that these quality measures have positive significant effect on economic growth in Germany. The robustness of results is tested by exclusion of multiple banks operating in the multiple regions and by controlling the proximity of financial markets and structurally weaker East is excluded from the sample. Ibrahim (2012) argues that the financial intermediaries have significant positive impact on economic growth in Nigeria. Al-Jarrah and etal (2012) employed larger number of financial development indicator which are empirically correlated to each other but found no empirical evidence for their positive impact on economic growth in Jordon as suggested by Schumpeter (1911). Gaffeo and Garalova (2013) found that in the long run the relationship between the financial intermediaries development and economic growth is positive and utilize its full potential however in short run it is weaker and negative.

2.2. Economic growth and financial intermediation development:-

Chang and et al (2010) empirically suggested that there is no correlation between the bank funds reallocation and economic growth or between economic growth and funds reallocation but found positive empirical relationship between bank deposits and economic growth. The study suggested that economic growth leads to financial

development in China. Carby and etal (2012) empirical research conducted at Barbados does not support the Patrick (1966) thesis.

H_1: The economic growth is effected by financial intermediation development.

3. EMPIRICAL METHODOLOGY

The balanced panel data is used in the study covers the period from 1961-2011 and comprises of developed and developing countries. The developing countries includes Pakistan, India, Malaysia, Turkey, Thailand, Sri Lanka, Mexico, Egypt, Nigeria, Sudan and Philippines and developed countries includes USA, UK, Australia, Japan, Sweden and Netherland. The economic growth is as dependent variable is determined through GDP growth (annual percentage) as suggested by Fung (2009) and collected from World Bank economic indicators. The measures of financial intermediation development used are the money and quasi money as percentage of GDP$(M2)$, it is considered as a baseline measure of the financial sector size and domestic credit to private sector as percentage of GDP (Fung, 2009) for robustness test. Schumpeter (1911) suggested that financial development leads to economic growth, Robinson (1952) suggested that growth leads to financial development and Patrick (1966) suggested endogenous relationship. Therefore the instrumental variable estimation is used as indicated by researchers (Azariadis and Smith; 1996, Bittencourt; 2012) both theoretically and empirically that the main macroeconomic determinant of the financial intermediaries' development is inflation. The GDP deflator annual percentage is taken inflation value.

The panel data stationary is tested through Hadri unit root test. To analyze the hypothesis that "The economic growth is effected by financial intermediation development" Two stage least Square is utilized on stationary data. The data is analyzed through Eviews statistical package. The following equations are utilized for data analysis through two stage least square.

$$\Delta EG = \beta_0 + \beta_1(FIN) + \varepsilon \quad (1)$$

$$FIN = \beta_0 + \beta_{1(Inflation)} \quad (2)$$

The ΔEG in the equation represents economic growth measured by GDP growth (annual percentage). FIN represents financial intermediation development which is determined through M_2 as percentage of GDP and for robustness test Domestic credit to private sector as percentage of GDP. The issue of endogeneity of Economic growth and financial intermediation development is resolved through two stages least square therefore inflation is used as the instrumental variable. The indicator ε represents error term.

4. EMPIRICAL FINDINGS

The Hadri panel unit root test (Table 1) suggested that all t values are significant therefore it leads to interpretation that the data is stationary therefore the data can rightly be analyzed through two stage least square. The inflation is utilized as the instrument variable to address the issue of endogenous relationship between economic growth and financial intermediation development. The equation 1 and 2 is utilized for this analysis of two stage least square. The t value (Table 2) is significant and showed that the variation in economic growth is significantly explained by the financial intermediation development. The coefficient M2 suggested that one unit increase in financial development significantly decreases economic growth by -0.012526. The R square represents that the variation of 0.021644 in economic growth is significantly explained by the financial development. Therefore the coefficient suggesting there is the negative impact of the financial intermediation development on the economic growth.

The robustness of the main findings is analyzed by utilizing domestic private credit in place of M2 (Table 3). The robustness test verifies the main findings and suggested that 0.042824 variation in economic growth is significantly explained by the financial development. The coefficient of domestic private credit significantly explaining that by one unit increase in financial development leads -0.014755 units decrease in economic growth. Therefore the alternative hypothesis is accepted that financial intermediation effects economic growth although negatively.

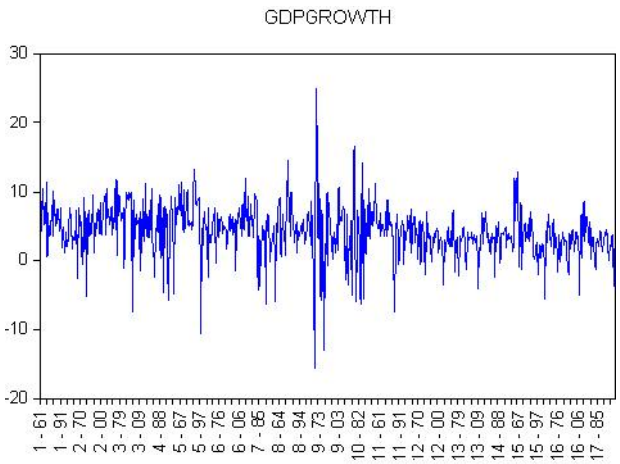
5. CONCLUSION

The balanced panel data is used in the study covers the period from 1961-2011 and comprises of developed and developing countries. The developing countries includes Pakistan, India, Malaysia, Turkey, Thailand, Sri Lanka, Mexico, Egypt, Nigeria, Sudan and Philippines and developed countries includes USA, UK, Australia, Japan, Sweden and Netherland. The review of literature suggested that the financial intermediation development leads to economic growth (Schumpeter; 1911), economic growth leads to financial development (Robinson; 1952) and endogenous relationship between the two suggested by Patrick (1966). Therefore the study is to analyze the empirical nature of impact of financial development on economic growth. The financial development is measured through the percentage of M2 to GDP and for robustness test percentage of domestic private credit to GDP. The economic growth is measure through GDP growth (annual percentage). To address the endogenous relationship between economic growth and financial development the instrument variable (inflation) is utilized.

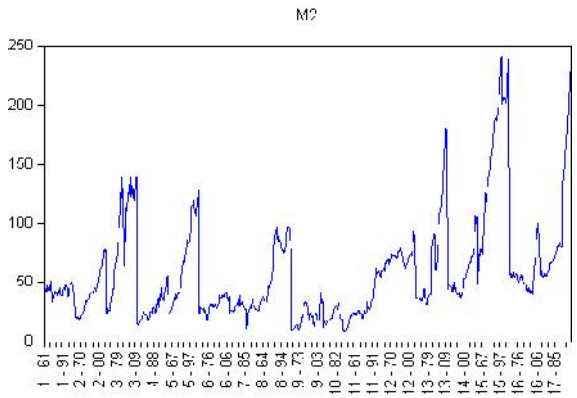
The stationary of panel data is tested through Hadri unit root test. The data is significantly stationary therefore two stage least square is utilized. The two stage least square is the better measure to address the issue of endogeneity. The main findings of the study suggesting that the financial development exerts a significant negative effect on the economic growth and therefore the findings are not aligned with the study of many researchers (Schumpeter; 1911, Goldsmith; 1969 and Mckinnon and show; 1973) and aligned with Trew (2008). The robustness test supports the main findings of the study. These results suggesting for further investigation of the factors contributes to financial intermediation development although it exerts negative impact on the economic growth.

APPENDIX

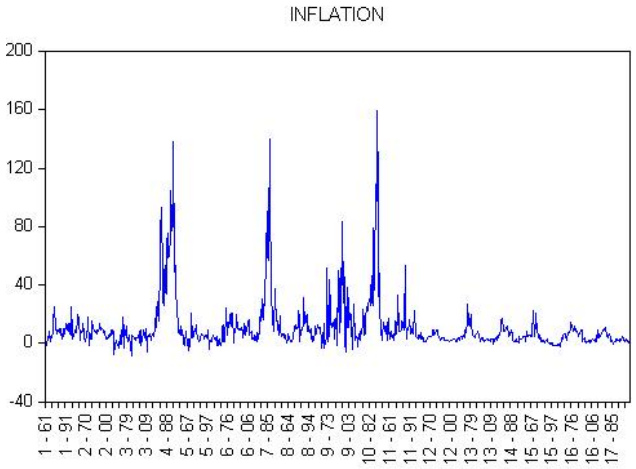
Graph 1



Graph 2



Graph 3



Graph 4

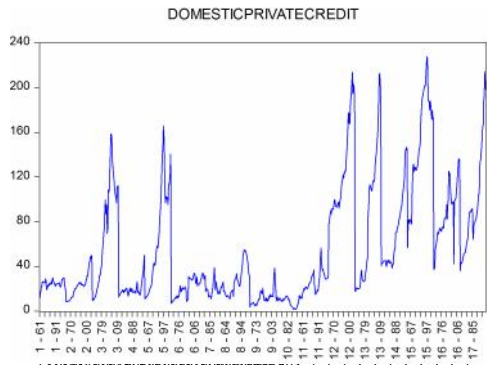


Table 1 (Hadri Panel unit root Test Results)

Exogenous Variables: Individual effects		
Sample: 1961 2011		
Total Panel (balanced) observations: 867		
Cross-Sections included: 17		
Variable (GDP Growth)	**t-Statistics**	**Prob.**
Hadri Z-stat	6.55931	0.0000
Heteroscedastic Constant Z-stat	6.00281	0.0000
Variable (Inflation)	**t-Statistics**	**Prob.**
Hadri Z-stat	1.91687	0.0276
Heteroscedastic Constant Z-stat	3.85382	0.0001
Variable (M2)	**t-Statistics**	**Prob.**
Hadri Z-stat	18.4296	0.0000
Heteroscedastic Constant Z-stat	12.7484	0.0000
Variable (Domestic Private Credit)	**t-Statistics**	**Prob.**
Hadri Z-stat	18.7003	0.0000
Heteroscedastic Constant Z-stat	13.7857	0.0000

Table 2 (Panel Two stage least square)

Dependent Variable: GDP Growth							
Method: Panel Two stage least square							
Total Panel (balanced) observations: 867							
Periods included: 51							
Cross-Sections included: 17							
Instrument Specification: C M2 Inflation							
Constant added to instrument list							
Variables		**Co-efficient**		**t-Statistics**		**Prob.**	
C		5.038263		24.14464		0.0000	
M2		-0.012526		0.002863		0.0000	
R-squared	0.021644	Adjusted R-squared	0.020513	F-statistic	19.13666	Prob(F-statistic)	0.000014

Table 3 (Panel two stage least square-Robustness test)

Dependent Variable: GDP Growth							
Method: Panel Two stage least square							
Total Panel (balanced) observations: 867							
Periods included: 51							
Cross-Section included: 17							
Instrument Specification: C Domestic Private Credit Inflation							
Constant added to instrument list							
Variables		**Co-efficient**		**t-Statistics**		**Prob.**	
C		5.124672		28.41609		0.0000	
Domestic Private Credit		-0.014755		-6.220942		0.0000	
R-squared	0.042824	Adjusted R-squared	0.041718	F-statistic	38.70012	Prob(F-statistic)	0.000000

REFERENCES

1. *A´vila, D. R. (2007). Finance and growth in the EU: New evidence from the harmonisation of the banking industry. Journal of Banking and Finance, 1937–1954.*
2. *Adamopoulos, A. (2010). Financial development and economic growth an empirical analysis for Ireland. International Journal of Economic Sciences and Applied Research, 3(1), 75-88.*
3. *Aghion, P., Howitt, P., & Foulkes, D. M. (2003). The Effect of Financial Development on Convergence: Theory and Evidence. Review of financial studies, 1-49.*
4. *Ahmad, E., & Malik, A. (2009). Financial sector development and economic growth: An empirical analysis of developing countries. Journal of economic cooperation and development, 17-40.*
5. *Al-Jarrah, I. M., & etal. (2012). Evaluating the Impact of Financial Development on Economic Growth in Jordan. International Research Journal of Finance and Economics(94), 123-139.*
6. *Arestis, P., & al, e. (2005). Financial structure and economic growth. CEPP Working Paper, University of Cambridge, centre for economic and public policy , 6(5), 1-31.*
7. *Arestis, P., Demetriades, P. O., & Luintel, K. B. (2001). Financial development and economic growth: The role of stock market. Journal of money, credit and banking, 33(1).*
8. *Azariadis, C., & Smith, B. D. (1996). Private information, money and growth: indeterminacy, fluctuations and the Mundell-Tobin effect. Journal of economic growth, 309-332.*
9. *Bader, S. A., & Abu-Qarn, A. S. (2008). Financial development and economic growth: The Egyptian experience. Journal of Policy Modeling, 887–898.*
10. *Bader, S. A., & Qarn, A. S. (2006). Financial development and economic growth nexus: Time series evidence from Middle Eastern and North African countries. Discussion paper no. 6-09 Monaster centre for economic research, 1-33.*
11. *Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychology research-conceptual, strategic and statistical consideration. Journal of personality and social psychology, 1173-1182.*
12. *Beck, T., & al, e. (2004). Finance, Inequality and Poverty: Cross-Country Evidence. World Bank Policy Research Working Paper 3338, 1-36.*
13. *Beck, T., Levine, R., & Loayza, N. (1999). Finance and the Sources of Growth. Central Bank of Chile, the World Bank (pp. 1-50). The World Bank.*
14. *Beck, T., Lundberg, M., & Majnoni, G. (2003). Financial Intermediary Development and Growth Volatility: Do Intermediaries Dampen or Magnify Shocks? World Bank.*
15. *Bencivenga, V. R., & Smith, B. D. (1991). Financial Intermediation and Endogenous Growth. Review of Economic Studies, 195-209.*
16. *Benhabib, J., & Spiegel, M. M. (2000). The Role of Financial Development in Growth and Investment. Journal of Economic Growth, 341-360.*
17. *Bhattacharya, P. C. (2007). Informal Sector, Income Inequality and Economic Development. Discussion Paper 2007/09, centre for economic reforms and transformation School of Management and Languages, Heriot-Watt University, Edinburgh, 1-36.*

18. Bittencourt, M. (2012). Financial development and economic growth in Latin America: Is Schumpeter right? Journal of policy modeling, 34, 341-355.
19. Bittencourt, M. (2012). Financial development and economic growth in Latin America: Is Schumpeter right? Journal of policy modeling, 34, 341-355.
20. Caporale, G. M., & etal. (2009). Financial Development and Economic Growth: Evidence from Ten New EU Members. Economics and Finance working paper series, 1-39.
21. Carby, Y., & etal. (2012). Finance and Growth Causality: A Test of the Patrick's Stage-of-Development Hypothesis. International Journal of Business and Social Science, 3(21), 129-139.
22. Chang, P. C., Jia, C., & Wang, Z. (2010). Bank fund reallocation and economic growth: Evidence from China. Journal of Banking and Finance, 2753-2766.
23. Cheng, X., & Degryse, H. (2007). The impact of banks and non-bank financial institutions on local economic growth in China. BOFIT Discussion Papers, 22, 1-49.
24. Christopoulos, D. K., & Tsionas, E. G. (2004). Journal of Development Economics. Financial development and economic growth: evidence from panel unit root and cointegration tests, 73, 55-74.
25. Deidda, L., & Fattouh, B. (2008). Banks, financial markets and growth. Journal of Financial Intermediation, 6-36.
26. Demetriades, P. O., & Hussein, K. A. (1996). Does financial development cause economic growth? Time-series evidence from 16 countries. Journal of Development economics, 51(2), 387-411.
27. Fung, M. K. (2009). Financial development and economic growth: Convergence or divergence? Journal of International Money and Finance, 56-67.
28. Gaffeo, E., & Garalova, P. (2013). On the finance growth nexus: additional evidence from central and eastern Europe countries. Economic change and Restructuring, 1-34.
29. Ganga, G. (2001). Financial Development and Economic Growth in Guyana. XXXIII Annual Monetary Studies conference (pp. 1-26). Belize City: Caribbean Centre for Money and Finance.
30. Giannopoulos, M. P. (2006). Economic Growth and Financial Development: Empirical Analysis of three Scandinavian Countries. Operational Research. An International Journal, 6(2), 221-238.
31. Goldsmith, R. (1969). Financial structure and development. London: Yale University press, New Haven.
32. Hao, C. (2003). Development of Financial Intermediation and Economic Growth Chinese Experience. Proceedings of the 15th Annual Conference of the Association for Chinese Economics Australia (pp. 1-29). (ACESA).
33. Hasan, I., Wachtel, P., & Zhou, M. (2009). Institutional development, financial deepening and economic growth: Evidence from China. Journal of Banking and Finance, 157-170.
34. Hendrick, R. (2011). The importance of a financial intermediary . Article factory, 1-18.
35. Ibrahim, S. A. (2012). Financial Intermediation and Economic Growth in Nigeria. British Journal of Arts and Social Sciences, 4, 164-179.
36. Islam, M. A., & Osman, J. b. (2011). Development Impact of Non-Bank Financial Intermediaries on Economic Growth in Malaysia: An Empirical Investigation. International Journal of Business and Social Science, 14(2), 187-198.
37. Jeong, H., & Townsend, R. (2008). Growth and Inequality: Model Evaluation Based on an Estimation-Calibration Strategy. Macroeconomic Dynamics, 12, 1-54.
38. Katircioglu, S. T., & Katiricioglu, E. (2009). Credit Expansion and Real Income Growth in the EURO AREA: Evidence from Panel Unit Roots and Granger Causality Tests. Anadolu International Conference in Economics (pp. 1-13). Eskişehir: EconAnadolu 2009.
39. Koetter, M., & Wedow, M. (2010). Finance and growth in a bank-based economy: Is it quantity or quality that matters? Journal of International Money and Finance, 1529-1545.
40. Kuznet, S. (1955). Economic Growth and Income Inequality. The American Economic Review, 45(1), 1-28.
41. Lee, J. (2005). Financial Intermediation and economic growth: evidence from canada. Eastern Economics Association (pp. 1-26). New York: Eastern Economics Association.

42. Levine, R. (1999). Law, finance and economic growth . Journal of Financial Intermediation, 1-43.
43. Levine, R., Loayza, N., & Beck, T. (1999). Financial Intermediation and Growth: Causality and Causes. World Bank (pp. 1-64). World Bank.
44. Levine, R., Loayza, N., & Beck, T. (2000). Financial Intermediation and Growth: Causality and Causes. Journal of monetary economics, 46, 31-77.451
45. Liang, Z. (2006). Financial development and income distribution: A system GMM panel analysis with application to urban china. Journal of economic development, 31(2), 1-20.
46. Lutz, M. B. (2013). Financial Development and Income in African Countries. Contemporary economic policy, 31(1), 163-175.
47. Mckinnon, R. I. (1973). Money and capital in economic development. Washington DC: The brookings institution.
48. Nikoloski, Z. (2012). Financial sector development and inequality: Is there a financial Kuznets curve. Journal of International Development, 1-15.
49. Niyubahwe, A. (2008). Financial Intermediation and Economic Growth: Time Series evidence from Burundi. Economic Development Institute of Burundi (IDEC).
50. Odeniran, S. O., & Udeaja, E. A. (2010). Financial Sector Development and Economic Growth: Empirical Evidence from Nigeria. Economic and Financial Review, 48(3), 91-124.
51. Pan, S., & etal. (2009). Does Financial Intermediation Development Increase Per Capita Income in Rural China? China & World Economy, 17(4), 72-87.
52. Patrick, H. T. (1966). Financial development and economic growth in underdeveloped countries. Economic development and cultural change, 174-189.
53. Rajan, R. G., & Zingales, L. (1998). Financial Dependence and Growth. American Economic Review, 297-317.
54. Robinson, J. (1952). The rate of interest and other essays. London: Macmillan.
55. Schumpeter, J. A. (1911). The theory of economic development An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle. cambridge, MA: Harvard university press.
56. Shaw, E. S. (1973). Financial deepening in economic development. Oxford university press.
57. Siklos, & Pierre. (2001). Money, Banking and Financial Institutions: Canada in the Global Environment. Toronto: MC Graw Hill Ryerson.
58. Trew, A. (2008). Efficiency, depth and growth: Quantitative implications of finance and growth theory. Journal of Macroeconomics, 30, 1550-1568.
59. W., R., & R.A., R. (2012). Financial Intermediation and economic growth: A lesson from Sri Lanka. Wuhan, PR China: School of Economics, Wuhan University of Technology.