CHAPTER 2
REVIEW OF LITERATURE

2.1. Introduction

Before analyzing the relationship between financial development and manufacturing exports, it is important to review existing literature and to understand theoretical background related to it. Schumpeter (1911) was the earliest economist who laid down the importance of finance and services of financial intermediaries in promoting innovation and growth in an economy. Some other economists also mentioned that financial sector helps in growth of an economy. But it was Goldsmith (1955) who did a systematic analysis of financial sector development and growth and he also found positive relation between both. C. Rangarajan (1998) also highlighted the importance of financial sector in achieving the sustainable economic growth.

But the motive of this study is to check whether financial development influences the manufacturing exports of BRICS nations or not. So, in this direction international theories were explored and most of international theories conclude that factor endowments, technologies and scale of economies are main determinants of trade among economies. The basic H-O model explains that country abundant in any factor will have comparatively advantage in good intensive in abundant input factor. But some recent literature has also mentioned that financial sector development can influence the pattern of trade of a nation. One of the first papers and important paper in this field is of Kletzer and Bardhan (1987). They used H-O tradition model with two nations, two sectors, and two factors. They allowed both the sectors dependent on

land and labor, while assumed one sector is also dependent on external financing for capital. And the results showed that nation with a low credit restriction specializes in that sector which utilize external finance for the capital. Beck (2002, 2003) in his paper assumed both the sectors (manufacturing and agriculture sector) to be dependent on external finance. Manufacturing sector has increasing returns to scale feature and is more credit intensive as firms in this sector needs working capital to purchase technology regularly. Agriculture sector has constant return to scale feature as in this sector production takes place with inherited technology. Thus, the quality of technology and price is determined by external funds available for working capital. Since financial sector development diverts the producer's incentives towards the increasing returns to scale good. Other things remaining the same, better financially developed countries become net exporters of the manufactured goods. Chaney (2005) also argued that firms overcome barriers of international trade when they get external finance easily or large number of companies get cheap external finance. Consequently, large number of firms export and exports rise. Rajan and Zingales (1998) also highlighted that countries with poor financial sector development have high cost of external finance in comparison with high financially developed countries. Svaleryd and Vlachos (2002) treat financial sector as a factor of production. An economy with good well-developed financial system specializes in those sectors use more financial sector services. So, economies with better financial system specializes in those industries which are more dependent on external financing. As per Taylor (2008), as a result of financial sector reforms entrepreneurs face less restrictive credit constraints and then investment gets increased.

Melitz (2003) explained that based on his production capacity an entrepreneur can choose to produce for the home country or to bear additional export cost. Increased trade openness leads to decreased exporting cost and increased ability of the producers to export. Improved financial sector development, leads to increased investment, also enhances the marginal effects of trade liberalization in rising the average productivity as well as company size. Acemoglu and Zilibotti (1997) showed that investors who are risk averse likes to invest in low return projects in those countries where capital is scare. Fanelli and Keifman (2002) showed that in only large and well-established companies are in poor financial developed nations. Rajan and Zingales (1998) also mentioned that total trade flows are more effected by number of exporting firms rather than the volume of export exported by each firm. Manova (2005, 2006) mentioned that entry in market not only depends on exporter´s financial development but also on the size of market of importer. As, firms profit increases with the size of the importer's country size. It is also believed that well financial developed countries have a greater number of partners in trade and also have ability to export to smaller markets, especially in those sectors which are financially sensitive. Finally, several authors have studied the role of exchange rate on trade while considering financial development. Becker and Greenberg (2003, 2007) mentioned that in less financially developed countries exports are less effected by exchange rate fluctuations. Chaney (2005) also argued that change in exchange rate causes larger movements in export volumes if financial markets are perfectly developed.

The existing literature related to this study is explained below in elaborately manner and has been divided in below mentioned in three parts: -

i. Studies related to determinants of financial sector development.

ii. Studies related to financial development and economic growth.

iii. Studies related to financial development and trade.

2.2. Studies Related to Determinants of Financial Sector Development

Moustain and Fatima (2004) checked the causality between financial sector development and economic growth during 1970-2000. Variables considered for financial development were liquid liabilities as percentage of GDP, domestic credit by the banking sector as percentage of GDP, domestic credit to the private sector as percentage of GDP and Gross domestic product as proxy of economic growth. Johansen Co integration test was applied to analyze data. Findings revealed that only short-run and irregular relationship occurs between both the variables.

Chinn et al. (2008) tried to examine the factors which effect financial development. Study was done on 108 countries from 1980-2000. Variables used in study were market capitalization, credit to the private sector, capital openness index etc. Study concluded that financial openness contributes in equity market development.

Lu and Yao (2009) analyzed financial development, effectiveness of law and economic growth of China over the period of 10 years. Proxies used for financial development were share of credit, bank competition, share of private credit and effectiveness of legal system. Regression method is applied for analysis of data. Findings of study revealed that improving law alone cannot enhance total financial development of China.

Burcu et al. (2009) tried to analyze the relationship between financial sector development and growth using data of 10 countries (emerging countries) from 1968-2007. In this study researcher considered liquid liabilities, bank credit (% of GDP), private sector credit, GDP, gross fixed capital, government final consumption expenditure as percentage of GDP, trade volume as variables of study. Researcher used panel unit root tests, panel co-integration and Fully Modified Ordinary Least Squares (FMOLS) methods. Results revealed that there is long-run relationship between financial development and growth.

Dogbey (2010) tried to find out whether financial development is communicable or not. Proxies used for financial development were domestic credit to the private sector, private credit by banking sector and market capitalization. Independent variables were initial GDP per capita, spatial weight matrixes, lagged level of financial development and regional dummies over period of 1985-2000. Spatial Auto Regressive model (SAR) and Spatial Error Model (SEM) applied to analyze the data. Bureaucratic efficiency is vital to enhance financial sector development.

Hye (2011) constructed financial development index of India. He also examined the relationship between financial sector development and economic growth of India. To check stationarity of data series Phillips Perron, ADF unit root test and Ng Perron unit root tests were applied. ARDL approach is applied to check co-integration. Findings of the study show that financial development is negatively associated with economic growth of India in case of long and short-run.

Minija (2012) tried to examine the relationship between financial sector development and growth of India. Firstly, financial development index is constructed of India by

using PCA approach in pre-liberalization period and post-liberalization period. Bounds test for cointegration is applied to check cointegration, direction of causality is checked using VAR granger causality test. Co-integration is found in the post-liberalization period only. In pre-liberalization period financial development leads economic growth and in post-liberalization period economic growth promotes financial development.

Adusei (2013) in his study tries to check the relationship between financial development and GDP of Ghana from 1971 to 2010. To measure financial development of Ghana three proxies are used: domestic credit to private sector (% of GDP), domestic credit (% of GDP) and broad money (% of GDP). To investigate relationship fully- modified ordinary least square (FMOLS), Error correction and GMM methods employed. Findings of this study revealed that financial development undermines economic growth of Ghana.

Takyi and Obeng (2013) in his paper tries to determine the determinants of financial sector development in Ghana from 1988 to 2010. As proxy of the financial development of Ghana he used only one variable namely domestic credit to private sector (% of GDP).

Raja et al. (2014) investigated the determinants of financial sector development in developed and developing countries using panel data. Time period of the study is from 1990 to 2012 and 27 developed and 30 developing countries considered in this study. Financial development is represented by credit to private sector in selected countries. Hausman test is applied to check whether random effect model is more appropriate or fixed effect model. Findings revealed that all exogenous variables have significant impact on financial development.

Badeeb and Lean (2015) tried to highlight on the major determinants of financial sector development in Yemen. The result demonstrated trade openness, economic growth, natural resource dependence and inflation are major determinants of financial sector development in Republic of Yemen. Financial development is positively impacted by trade openness and economic growth, while the natural resources dependence has negative impact on financial development. To construct new proxy of financial development PCA approach is applied. To construct this financial development index three variables are used namely M2, domestic credit and bank deposits as % of GDP.

Puatwoe and Piabua (2017) tried to check the effect of financial development on economic growth of African countries. Three indicators of financial sector development were used namely broad money, domestic credit, and bank deposits. ARDL technique used to estimate the results. Findings of this study revealed that in short run positive relationship exist between M2, government expenditure and economic growth and negative between private investment, bank deposits and economic growth. And in long run there is positive and significant effect of financial sector development on economic growth.

2.3. Studies Related to Financial Development and Economic Growth.

Rangarajan C. (1998) focused on the role of financial sector in an economy to achieve sustained growth in India. He argued that a good financial system is very important to improve savings, investment and productivity in an economy. The nature and extent of government intervention, interest rate deregulation, prudential norms and directed credit like efficiency parameters were also discussed while evaluating

financial sector. Findings of the study shows that India has initiated many reforms and based on these reforms a well-established banking system will be established. And this well-established banking system will lead to better economic growth in future.

Xu (2000) studied effect of financial sector development on domestic investment in 41 countries during 1960-1993.FDIn (Financial Development Index), real GDP and real domestic investment were considered in the study. He used multivariate VAR and impulse response function. Findings show that financial development is vital for growth.

Omran and Bolbal (2003) analyzed the role FDI in growth of an economy and financial development in 17 Arab countries from 1975 to 1999. Cross country regression and pairwise granger causality test methods were applied to analyze the data. Domestic credit to private sector from commercial banks (% of GDP), commercial banks assets, FDI, central bank assets, total value of shares traded (% of GDP) variables are used in the study. All 17 countries were divided into 3 groups as Gulf Countries, reform countries and other countries. Causality between financial development and FDI is checked based on these groups. Findings of the study also reveal that financial development in Arab Countries is related with bank.

Dehejia and Muney (2003) studied the state-level banking regulation of US and also tried to check the impact of these regulations on financial development and economic growth in US between 1900-1940. They examined different pathways through which financial development can improve growth and also examined the impact of these laws on manufacturing, range of firm and human capital outcomes. Findings of study concluded that not all types of financial development effects economy growth

positively, financial expansion policy by state deposit insurance have negative impact on economic growth. They also studied the political economy process by which these laws are adopted.

Rahman (2004) tried to find out whether output growth and higher investment in long-run leads to financial development. Time period studied is 30 years (1976-2005). The variables were weighted average of annual interest rate on lending by banks, domestic credit, broad money, total deposits, gross fixed capital formation and per capita. Vector Auto Regressive (VAR) model was used to analyze the data. Findings of the study show there is co-movement between financial development and investment and per capita income in the long run.

Khan and Qayyum (2007) tried to check the effect of financial liberalization and trade on economic growth in Pakistan economy over the period 45 years (1961-2004). Bound test for co-integration approach is used to analyze the data. To check stability of model CUSUM and CUSUMQ method were used. In long-run, trade and financial policies play vital role in promotion of growth of Pakistan but with slow rate of adjustment. While, in short-run trade policy variables and deposit rate are very slow, which suggested acceleration in reform process of Pakistan.

Rathinam (2007) studied the financial sector development and growth puzzle in India. determinants like legal, institutional and financial regulations were focused. To develop financial development index M2 over nominal GDP, private credit was used. PCA is used to develop financial development index. Analysis of data was done with the help of Multivariate VAR frame work, Granger causality test and Vector Error Correction (VECM) model. Results of the study showed that institutional and legal

developments have positive impact on financial development and financial regulation have negative impact on financial development in long-run.

Chakraborty (2008) checked whether financial development causes economy growth in India since 1996. Quarterly data was used for the period 1993-2005. Techniques used to analyze the data were Engle-Granger, Johnson cointegration and Granger causality test. Findings of the study revealed that investment-output ratio has significant and positive effect on real growth rate of GDP. The findings showed less support to the theoretical prediction that share market improvements would play a vital role in promoting growth. Instead, the banking sector reform seems to enhance economic growth much significantly.

Jedidia (2014) checked the relationship between financial sector development and economic growth of Tunisia during 1973-2008. Domestic credit to private credit (% of GDP), value traded and issuing bank's securities on the financial market were considered as financial sector development variables. ARDL method was used as this model overcomes the bias related to unit roots and co-integration tests. Results revealed positive effect of domestic credit to private sector on economic growth of Tunisia and bi-directional causality between development of banking sector and economic growth.

Duasa (2014) tries to investigate the impact of financial development on economic growth or impact of economic growth on financial development in selected OIC countries. For this purpose, data collected ranges from 1960-2005. To analyze the data VAR and VECM approach is used. Findings of the study revealed that in Egypt and Malaysia bidirectional causality relationship exists and in Jordan and Iran

unidirectional relationship exists while in Behrin, Kuwait and Libya, Saudi Arabia and Pakistan no causality relationship exists between financial development and economic growth.

Lenka (2015) explored the role of financial development in economic growth of India during 1980-1911. He did a time-series analysis by using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) for stationarity, Bounds co-integration for co-integration, ECM for short run and long run estimates. Findings show that financial sector development and economic growth have cointegration equation. He suggested to introduce further financial sector reforms.

Wait, Ruzive and Roux (2017) checked the influence of financial market developments on high economic growth of BRICS as compared to non-BRICS counterparts. They analyzed financial market development and financial sector reforms in BRICS countries. They regressed many financial sector indicators against real GDP growth, capital accumulation and productivity. They used VECM, three stage least sq. and Vector auto-regressive models. Panel data analysis is done to check the influence of financial sector indicators. Conclusion of study was that 1% increase in depth of financial market increases causes BRICS countries to grow13% faster than non-BRICS countries and 1% of increase in credit to the private sector causes BRICS countries to grow 2.32% faster than non-BRICS countries.

2.4. Studies Related to Financial Development and Trade.

Bardhan and Kletzer (1987) focused on main function of financial system which is channelizing money from savers to investors. They assumed that in every country, one sector produces an intermediate good while another produces final good. To

produce final good, intermediate good is required as input. Thus, final good sector for working capital requires external funds. And due to information asymmetries between producers and fund lenders, external financing has moral hazard problems. So, less developed financial systems are not able to remove information asymmetries and apply rationing. On the other side, for well-developed financial systems makes it possible to reduce frictions and adequately financing working capital. As per them external financing is required for final good sector not for intermediate good sector. So, final good sector is the one which gets profited from financial development. Finally, findings of the study show that economies with better financial system have a comparative advantage in the final good. And the economy with weaker financial system has comparative advantage in the intermediate good.

Beck (2002) checked the effect of financial development on trade in manufacturers. Study was conducted on 65 economies over the period of 30years (1966-1995). Proxy used for financial development is domestic Credit to the private sector. Unobserved heterogeneity and reverse causality are controlled in study. Results of the study reveal that economies with financial systems have higher manufacturing exports in total exports and also have higher trade balance in manufacturing goods. And the impact of financial development on manufacturing exports is stronger in long-run as compared to the short-run.

Svaleryd and Vlachos (2005) tried to check the effects of financial sector on the pattern of industrial specialization in OECD countries. Findings of the study revealed that economies with developed financial system specialize in external finance dependent industries. Findings also show that financial systems are more important

determinant in pattern of industrial specialization between OECD countries than human resource.

Huang and Temple (2005) in his study studied the relationship between trade and finance. His study period is 1991-2001. Principle component analysis (PCA) is used to measure financial development. OLS and instrumental variable (IV) procedures were used. Based on results, in high income countries strong evidence was found that trade promotes bank-based financial development, which is not the case in low-income countries.

Herge, Hodler and Lobsiger (2008) tried to understand important determinants of financial development like trade, culture and institutions in explaining the huge difference in size of secondary market in different countries. To analyze the difference in financial development of different countries an integrated test on institutional quality, cultural values and beliefs and trade was conducted. Study concludes that domestic market should be left open to foreign trade competition.

Shahbaz and Rahman (2008) examined the relation between exports, financial development and growth in Pakistan. Bound test for cointegration applied to check cointegration among variables. For direction causality, Granger causality approach is used. In long-run co-integration exists between financial development, exports and economic growth. Causality results shows causality between financial development and economic growth, financial development and exports and exports and economic growth. Study concluded that Pakistan policy makers can sustain exports growth by increasing economic growth and financial development.

Samba and Yan (2009) checked the relation between financial sector development and trade in manufacturing goods in East Asian countries. Time series analysis was done using VAR model to check long run relationship between financial development and trade in manufactured goods. The findings of the study suggested that in most countries, trade in manufactured goods increases financial development.

Susanto, Rosson and Costa (2011) empirically investigate the effect of financial development on trade of agriculture and manufactured products. Findings of the study revealed that financial development has positive impact on bilateral trade flows for manufacturing sector, as compared to agriculture sector. But this impact varied across different regions. Findings show that financial development's impact on both sectors are higher in developing countries as compared to advanced economies.

Susanto and Rosson (2011) investigated any possible linkages between financial development and agricultural exports in 49 countries. To analyze the data binomial models of gravity equations are applied. Financial reforms index is used to represent financial development index. Findings of this study reveal that advance countries have more positive impacts on agriculture exports as compared to developing countries (Kalina, 2013).

Kiendrebeogo (2012) tried to address the question of whether country's manufacturing trade is affected by development of its financial sector. Role of institutions is also investigated in this relationship. Study used pure cross sectional and panel specifications on 75 countries over the period 40 years (1971 to 2010). Study found that financial development has positive and strong effect on

manufacturing exports. This effect is found more stronger in those economies which have high quality institutions.

Kalina (2013) found out 3 mechanism and quantify them through which credit constraint affect trade, they are selection of heterogeneous firms into production, level of firms exports and the selection of domestic manufactures into exporting. Panel data was used to look the variations among financial sector development across different economies. As per this study, credit constrains impacts trade is by reduction in total output as much as 25%.

Wamboye and Mookerjee (2014) analyzed the nexus between financial development and manufacturing exports. Time series data of 29 African countries is considered. It was important from Africa point view as export diversification away from agriculture and resources is always important part of Africa's growth strategy. Findings revealed that out of 29 African countries, in 11 economies financial development promotes manufacturing exports and in 7 economies manufacturing exports promotes financial development.

Rahman and Farooq (2015) analyzed the relationship between financial development, economic growth and international trade of Australia over the period of 1965-2010. The ARDL bounds test for co integration is applied to check co-integration and long run relationship. The findings revealed that financial development, international trade and capital drives economic growth both in short run and long run. Financial development causes economic growth validating supply-side hypothesis.

Gokmenoglu, Amin and Taspinar (2015) checked the relationship between financial sector development, trade and growth of Pakistan. For stationarity ADF and PP tests were applied and in order to check co-integration Johansen co-integration test is applied. The direction of causality among variable is checked by Granger causality test. Findings of the study show that international trade and financial development increase economic growth in Pakistan.

Rasoulinezhad and Jabalameli (2018) tried to explore similarities in trade integrations of BRICS countries during 2001 to 2014 using time series data. They employed Panel-Gravity model in study. Variables considered in study were GDP, difference in income, trade openness, exchange rate, geographical distance, and Multilateral Resistance Term. Findings of the study show that different countries have dissimilar integration trade patterns in raw material and manufactured products, among the BRICS nations.

Khatun and Bist (2019) examined the relationship between financial development, economic growth and openness in financial services trade in BRICS nations (1990-2012). To measure financial development an index is constructed using PCA technique. In index banking sector, stock market, bond market and insurance sector developments were included. Findings of the study revealed that financial development have positive and significant impact on growth but to get advantage of openness in financial services trade, countries need to put more focus on development of stock market, bond market and insurance sector.