Chapter 6: Observations and Conclusion

6.1 Introduction

The present study has made an attempt to study the effects of Financial Integration on India. The study aims at examining the impact of financial integration on growth and on poverty in India. The correlation and regression analysis have been conducted to test the hypotheses. It has been observed that financial integration does not basically aim at growth or poverty eradication. However, the policy of financial liberalization definitely has certain implications for growth and poverty. According to the review of literature, financial integration affects growth directly, but there is no such direct impact on poverty. A relationship between financial integration and poverty in case of India has been found to be very distant and insignificant. This chapter summarizes the result, findings of the study and gives the conclusions.

6.2 Fulfilment of the Objectives

The following objectives have been fulfilled throughout this study:

1. To examine the policy developments on financial liberalization in India over a 20 years period (1991-2010): All the policies initiated and adopted under the broad policy of financial
liberalization in India over the period have been discussed in detail in Chapter 4. The policy efforts with respect to financial liberalization from the year 1985 till 2010 have been outlined in this chapter. (Pages -117 to 132)

2. To examine the extent of financial integration of the Indian economy: The policy of financial liberalization has been rigorously initiated and implemented since 1994. As a result, the Indian economy is said to have become more and more financially integrated with the outside world. Today, the World considers India as one of the financially integrated economies. The degree or the extent of the financial integration of Indian economy has been detailed out in chapter 4 (pages – 135 to 138) by examining the data collected on financial integration and in the chapter 5 on the page no. 196.

It has been observed that financial integration measured as FDI as a per cent of GCF takes value more than 1 post 1994, besides the value is increasing continuously and reaches 9.98 in 2010 and to 5.34 in 2011, indicating increasing extent of financial integration of the Indian economy. (Data on financial integration has been given in appendix 2 on the pages 311 and 317, which also indicates the extent of financial integration of an Indian economy.)

3. To study the impact of financial integration on the macro variables: In last two and half decades, many macroeconomic variables have been influenced in India as a result of financial integration and the policy of financial liberalization. Fiscal and monetary policies have also undergone change in the course of financial integration. The chapter 4 presents a study of the impact of financial integration on various macroeconomic variables like the savings level, the investment level, the growth rates, the exchange rate, the volatility in an economy, the foreign exchange reserves, etc. in the pages 132 to 168.

Correlations between financial integration and various other macroeconomic variables have been studied with the help of data collected on these variables and presented in chapter 5 (pages 209 to 211 and 248 to 251). Correlations between financial integration and investment; financial integration and growth, financial integration and inflation; financial integration and human capital; financial integration and poverty; financial integration and financial deepening; financial integration and employment; financial integration and government’s social expenditure; financial integration and trade integration; etc. have been studied. Almost all the correlations have been found to be significant at 5% level. The correlation between financial integration and inflation has been found to be insignificant at 5% level. A positive and strong correlation has been found
between financial integration and investment (0.79); financial integration and growth (0.83); financial integration and trade integration (0.79), financial integration and human capital (0.85); financial integration and financial deepening (0.87); financial integration and social expenditure (0.73); whereas a negative correlation has been found between financial integration and poverty (-0.84) and between financial integration and employment ratio (-0.80).

Thus it can be concluded that financial integration has affected most of the macroeconomic variables; however, a negative correlation between financial integration and employment ratio is a matter of great concern.

4. To analyze the links between financial integration and poverty in India: Financial integration and poverty are directly as well as indirectly related. In theory, financial integration reduces poverty in many ways as well as it increases poverty through many links. These theoretical links, positive as well as negative have been discussed in detail in the chapter 2 (pages 63 to 74).

Financial integration-poverty nexus is very complex, multidimensional and country-specific. The tailor-made relation between financial integration and growth and between financial integration and poverty specifically in case of India have been explored in the chapter 4 on the page 168.

5. To study future challenges of financial integration in India: It has been observed that financial integration has positive as well as negative impact on the Indian economy. It has been found throughout the study that financial integration has really helped India to improve savings level, investment level, and availability of capital; to enhance growth and foreign exchange reserves; efficient resource allocation; financial deepening etc. But it has been observed that financial integration has failed to create employment opportunities and to enhance social welfare. It has also led to increased volatility. Developing financial markets further, continuing the present rate of growth and the pace of financial reforms are challenging for the Indian economy. Managing inflation and currency appreciation are also important challenges. All these challenges posed by financial integration are discussed in the chapter 4 (pages 168 to 183).

6. To make policy suggestions on the basis of the above study: Chapter 6 (pages 305 to 308) makes policy suggestions on the basis of the whole study. Considering the findings of the study, the review of financial integration in India, the impact of financial integration on Indian Economy, certain conclusions have been drawn. Ultimately, certain policy suggestions have been
prescribed to use the policy of financial integration to enhance social welfare, to make Indian economy more resilient, to enhance growth of the economy, etc. Foreign investment should be used productively, complementary policies should be retained, existing policies should be altered to make growth and financial integration more pro-poor, etc. are some of the suggestions. Education system and financial system should be made poor friendly by providing appropriate concessions to them; employment elasticity of the whole economy should be enhanced.

6.3 Hypothesis Testing and Interpretation of the Results

The present study has analyzed the multifaceted and complex relationship between financial integration (FDI_PER_GCFt) and growth (PCNNP_FCt); and financial integration (FDI_PER_GCFt) and poverty (HCRT_CAGRt) in India. The following were the hypotheses of the study, which have been tested with the regression analysis.

I. Financial integration (FDI_PER_GCFt) affects growth (PCNNP_FCt); and
II. Financial integration (FDI_PER_GCFt) affects poverty (HCRT_CAGRt).

6.3.1 Testing of Hypothesis I – Financial Integration (FDI_PER_GCFt) affects Growth (PCNNP_FCt)

The impact of financial integration (FDI_PER_GCFt) on growth (PCNNP_FCt)) has been studied by regressing growth i.e. per capita net national product at factor cost (PCNNP_FCt), upon gross domestic capital formation indicating investment level in the economy (GDCFt), employment ratio (EMPRATIOt), exports plus imports to GDP ratio indicating trade integration (EXP_IMP_GDPt) and net FDI inflows as a per cent of gross capital formation indicating financial integration (FDI_PER_GCFt).

A significant relationship between financial integration (FDI_PER_GCFt) and growth (PCNNP_FCt) has been found in the regression analysis.

6.3.1.1 Findings and the Interpretation of the Result

The following are the findings of the regression analysis.

The result of the regression shows that the level of investment (GDCFt) in the economy, the employment ratio, trade integration and the financial integration (FDI_PER_GCFt) play
significant role in determining the growth (PCNNP_FC_t) of the economy. All the four variables together explain 99.5% of the variation in the growth (PCNNP_FC_t). The investment level (GDCF_t) has been appeared as a very strong variable affecting growth (PCNNP_FC_t), followed by employment ratio (EMPRATIO_t), trade integration (EXP_IMP_GDP_t) and financial integration (FDI_PER_GCF_t).

The regression equation can be presented as follows:

\[ PCNNP_FC_t = 55714.410 + 0.583 \times (GDCF_t) - 764.856 \times (EMPRATIO_t) + 15560.955 \times (EXP_IMP_GDP_t) + 284.860 \times (FDI_PER_GCF_t). \]

In accordance with the theory, the present study has also found that investment level (GDCF_t) has positive impact upon growth (PCNNP_FC_t). As gross domestic capital formation (GDCF_t) increases by ₹ 1, per capita net national product measured at factor cost (PCNNP_FC_t) also increases by ₹ 0.671.

The present study, that has found the positive relationship between the level of investment (GDCF_t) and growth (PCNNP_FC_t), shows results similar to the following studies:

Dennis Anderson (1990) analyzes the old issue of determining the contribution of investment made to the growth. According to the study, growth benefits from capital accumulation in both industrial as well as developing country. Economic growth is related to three variables, the rate of investment, the social rate of return to investment, and the investment-induced returns to labour.

M. S. Anwer and R. K. Sampath (1999) used unit root and cointegration technique to determine long run relationship between GDP and investment for 90 countries for the period 1960-1992. The study found short-run casualty between GDP and investment for 15 countries and long-run casualty for 23 countries. Bi-directional causality has been found among 10 countries and mostly the relationship is positive. A unidirectional causality from GDP to investment has been found among 18 countries and from investment to GDP among 10 countries. There is a positive causality from GDP to investment for 11 countries and from investment to GDP for 6 countries.

The study by Petros Jecheche (2011) analyzes the relationship between private investment and growth and the key determinants of both, investment and growth. The study investigated the
behaviour of private investment in the short as well as in the long run and its links to growth in Zimbabwe. The study found that private investment is critical determinant of growth. The analysis also shows that adverse shocks like deteriorating terms of trade can have long-lasting effects on growth, while the impact of credit to the private sector on growth has been short-lived. Public investment appears to provide long-run support for private investment and growth. Thus, this study concludes that there is significant potential for institutional reforms to improve the business environment, raise private investment and accelerate growth.

In accordance with the empirical facts but contrary to the theory, an inverse relationship between employment ratio (EMPRATIO_t) and growth (PCNNP_FC_t) has been found. If employment increases by 1%, then per capita net national product measured at factor cost (PCNNP_FC_t) is found to be decreased by ₹765. Theoretically, there is a large interdependence between growth (PCNNP_FC_t) and employment (EMPRATIO_t). Higher level of growth, indicating higher level of investment and more output and income level augments employment opportunities in the economy. On the other hand, the boost to the employment level in the economy also increases income level and accelerates growth in the economy. The present study restricts its analysis to the one way relationship i.e. the impact of employment level on growth. Though growth and employment go hand in hand in theory, India’s growth story is the exception. The employment data makes it very clear that throughout the period of study employment ratio is declining, though marginally. Hence, it has been observed that there is an inverse relationship between the level of employment and growth. The phenomenon of jobless growth, as mentioned earlier in chapter 5 (page no. 201), explains the declining employment ratio and the inverse relationship between employment and growth. As it has been observed in India, growth has not resulted into increasing employment opportunities. This has been observed more strikingly in the post-reform period, as growth is being driven by the capital intensive technique of production. Thus, India can be stated to have achieved new heights of growth or GDP, without experiencing the similar increase in the employment ratio. No net increase in the employment has been observed in this period. Thus, in India the negative impact of growth on employment ratio is observed to be very much stronger than the other way round. The following discussions have analyzed the jobless growth in India.
T. S. Papola and P. P. Sahu (2012) observe that in the post reform period, the change in growth rate of employment has been inversely related with the change in GDP growth rate. The paper has also pointed out that growth rate of employment during the first decade of the 21st century, i.e. from 1999-2000 to 2009-10, has turned out to be only 1.50, showing a long term deceleration with the highest GDP growth of 7.5 per cent. Employment elasticity has also sharply declined in the years following the reforms; it increased during 2000-2005 and was almost zero during 2005-10. The fastest employment growth has taken place in the secondary sector, at an annual average rate of about 3.5 per cent over the entire period i.e. from 1993-94 to 2009-10 and agriculture sector has in fact seen a decline in employment in recent years. Services sector registered a relatively high employment growth, averaging at about 3 per cent per annum over the entire post-reform period, but it was not proportional to its GDP growth which has been over 10 per cent per annum. The paper has also noted that the deceleration in the rate of employment growth in the post-reform period can primarily be attributed to a decline in employment growth in rural areas. In urban areas, the employment growth rate was higher in the first post-reform decade, i.e. from 1993-94 to 2004-05 and declined during 2005-10, but was still positive and significant at 1.80 per cent per annum.

Abheek Barua (2013) admits that in the post-liberalization period, the employment growth in India has remained weak. He says that lower employment growth may be set in a vicious circle of lower consumption, of lower demand and of lower growth; thus, growth has to be made more employment intensive. According to him, in the 2004-05 to 2009-10 period, in which GDP growth hit historically its highest levels, job growth collapsed to virtually zero. Employment growth in the organised sector seems to have been virtually zero in the post-liberalization period. There is a need to recognise the fact that without changes in the economic structure, growth does not guarantee jobs.

Financial integration (FDI_PER_GCFt) has also been found to play a role in determining growth (PCNNP_FCt). There is a positive relationship between financial integration (FDI_PER_GCFt) and growth (PCNNP_FCt). As FDI as a per cent of Gross Domestic Capital Formation (FDI_PER_GCFt) increases by 1 %, per capita net national product measured at factor cost (PCNNP_FCt) also increases by ₹ 285.

Financial integration (FDI_PER_GCFt) and growth (PCNNP_FCt) is a complex and multi-dimensional relationship. Financial integration affects growth in many ways, positively as well
as negatively. In India, financial integration has been observed to have small and mixed impact on growth. The present study reiterates that the relation between financial integration (FDI_PER_GCF_t) and growth (PCNNP_FC_t) in India is not direct but a distant one. The positive links between financial integration (FDI_PER_GCF_t) and growth (PCNNP_FC_t) have not found to be very strong in India. Increased savings and investments, higher capital allocation, financial sector development in general and banking sector development in particular; increased competition and technological transfer are some of the links which have been observed to be prominent in case of India. Similarly, negative links like concentration of credit with the large businesses, increased inequalities and not so encouraging employment opportunities have also been observed. This has led to mixed impact on growth resulting into no net impact of financial integration (FDI_PER_GCF_t) on growth (PCNNP_FC_t).

The above findings in support of the positive but weak relationship between financial integration (FDI_PER_GCF_t) and growth (PCNNP_FC_t) are found to be consistent with certain research studies.

José De Gregorio (1996) has found that there is weak but positive relationship between financial integration, depth of financial sector and growth. The work has not found any evidence of direct effects of financial integration on economic growth, after controlling for the depth of the domestic capital market. According to the study, the beneficial effects of financial integration on economic growth come mainly through fostering the development of the domestic financial system. The paper also highlights the benefits of foreign direct investment and its interactions with human capital.

Mitsuhiro Osada and Masashi Saito (2010) have studied the effects of international financial integration on economic growth on 83 countries for the period 1974-2007. It is observed that FDI and equity liabilities have the largest impact on the recipient country’s economic growth. It is stated to have positive impact on growth while debt liabilities have negative impact on growth. The study does not report any significant impact of FDI and equity assets or debt assets on economic growth. The study also points out that FDI liabilities and equity liabilities are particularly beneficial when the recipient country has good institutions or a developed financial market. The study also presents evidence that financial integration affects economic growth indirectly through its impact on other variables that may influence economic growth, such as trade openness and the depth of the domestic financial market.
Therefore, it can be concluded that the beneficial effects of financial integration (FDI_PER_GCF) on economic growth (PCNNP_FC) come mainly through fostering the development of the domestic financial system.

It has also been found that investment level (GDCF) in an economy can uniquely explain 0.44% of the variation in the growth (PCNNP_FC) of the economy. Employment ratio (EMPRATIO) is the next determinant and has been found to explain 0.74% of the variation in growth (PCNNP_FC). Trade integration explains 0.25% of the variation in the dependent variable. Though financial integration (FDI_PER_GCF) has also been found to explain the variation in the growth (PCNNP_FC), the extent of variation explained is mere 0.12%.

A use of financial integration dummy (DUMMY) instead of financial integration (FDI_PER_GCF), has resulted into almost same findings.

The Regression Equation:

\[
PCNNP\_FC_t = 50934.187 + 0.671 \times (GDCF_t) - 686.641 \times (EMPRATIO_t) + 14453.449 \times (EXP\_IMP\_GDP_t) + 863.700 \times (DUMMY_t).
\]

This regression shows that the investment level (GDCF), employment ratio (EMPRATIO), trade integration (EXP_IMP_GDP) and financial integration dummy (DUMMY) play significant role in determining the growth (PCNNP_FC) of the economy. All the four variables together are found to have explained 99.5% of the variation in the growth (PCNNP_FC). The investment level is found to be a very strong variable affecting growth (PCNNP_FC), followed by trade integration, employment ratio and financial integration dummy.

The variable investment level (GDCF) is said to be uniquely explaining 0.62% of the variation in the growth (PCNNP_FC); whereas employment ratio (EMPRATIO) is determining 0.34% of the total change in growth (PCNNP_FC), trade integration (EXP_IMP_GDP) is determining 0.26% and financial integration dummy (DUMMY) is determining 0.07% of the total increase in growth (PCNNP_FC).

Thus, the hypothesis that financial integration (FDI_PER_GCF) affects growth (PCNNP_FC) equally during the periods of pre and post-financial liberalization period can be said to be rejected. The regression analysis is said to reveal that the growth (PCNNP_FC) has been
relatively robust in the periods of financial integration.

The regression analysis on the transformed variables, give the same result showing financial integration as significant predictor of growth.

The Regression Equation:
\[ \text{DLOG} \_{\text{PCNNPFC}}_t = 0.018 + 0.007 (\text{DLOG} \_{\text{FDIPERGCF}}_t). \]

This shows that financial integration (DLOG\text{FDIPERGCF}_t) plays significant role in explaining growth (DLOG\text{PCNNPFC}_t). It explains 22% of the total variation in the growth (DLOG\text{PCNNPFC}_t).

6.3.2 Testing of Hypothesis II – Financial Integration (FDI\text{PER}_GCF_t) affects Poverty (HCRT\text{CAGR}_t)

To study the impact of financial integration on poverty, poverty i.e. Head Count Ratio has been regressed upon financial integration i.e. Inflows of FDI as a per cent of GDCF (FDI\text{PER}_GCF_t) and on a financial integration dummy (DUMMY_t) in two separate regressions.

Firstly, head count ratio indicating poverty (HCRT\text{CAGR}_t) has been regressed upon net FDI inflows as a per cent of gross capital formation indicating financial integration (FDI\text{PER}_GCF_t), exports plus imports to GDP ratio i.e. trade integration (EXP\text{IMP}_\text{GDP}_t), per capita net national product at factor cost i.e. growth (PCNNP\text{FC}_t), youth literacy rate indicating the quality of human capital (YLTR\text{CAGR}_t), M2 as a per cent of GDP i.e. financial deepening (M2\text{GDP}_t) and consumer price index i.e. inflation rate (CPI_t).

Secondly, head count ratio (HCRT\text{CAGR}_t), indicating poverty has been regressed upon financial integration dummy (DUMMY_t) and other independent variables which were same as above.

No significant relationship between financial integration (FDI\text{PER}_GCF_t) and poverty (HCRT\text{CAGR}_t) has been found in the analysis.

6.3.2.1 Findings and the Interpretation of the Result

The results of the regressions show that the human capital is the only variable which explains the variation in poverty (HCRT\text{CAGR}_t) in India. Financial integration (FDI\text{PER}_GCF_t) and trade
integration (EXP_IMP_GDPt) have said to play insignificant role in explaining poverty (HCRT_CAGRt). Youth Literacy Ratio (YLTR_CAGRt) indicating the level of human capital is said to explain 95% of the variation in the poverty (HCRT_CAGRt).

The following are the regression equations resulted from the above regressions.

\[
HCRT_{CAGRt} = 87.048 - 0.803 \times (YLTR_{CAGRt})
\]  
(regression 2.1)

\[
HCRT_{CAGRt} = 86.117 - 0.790 \times (YLTR_{CAGRt})
\]  
(regression 2.2)

As equations show, human capital is said to be the only significant and negative predictor of the poverty. When youth literacy is increased by 1%, head count ratio has decreased approximately by 0.80%.

The regression has excluded all the remaining variables being insignificant in explaining the variation in poverty (HCRT_CAGRt). Thus, financial integration (FDI_PER_GCFt), trade integration (EXP_IMP_GDPt), growth level (PCNNP_FCt) in the economy, financial deepening (M2_GDPt) and inflation (CPIt) are not playing significant role in explaining poverty (HCRT_CAGRt).

Higher youth literacy rate implies good quality human capital. If the population of the country is provided with better educational facilities, improved health facilities and all the required skills, then people will have higher efficiency and better employability; which ultimately helps them to come out of the poverty. This will reduce poverty.

The above findings that higher quality of human capital leads to lower poverty are found to be consistent with the certain research studies.

G. S. Becker (1995) observes that the investments in human capital are one of the most effective ways to raise the poor to decent levels of income and health. According to the study, prior to the nineteenth century, systematic investment in human capital was not important in any country. During the nineteenth century, education, skills and other knowledge came to be the crucial determinants of a person's and a nation's productivity. In the twentieth century, the primary determinant of a country's standard of living is how well it succeeds in developing and utilizing the skills, knowledge, health and habits of its population.

As financial integration (FDI_PER_GCFt) and poverty (HCRT_CAGRt) are indirectly related, one does not observe a significant relationship between the two. Financial sector development, banking sector development, enhanced growth rate, piling foreign exchange reserves are said to
be some positive results of financial integration; whereas no increase in employment opportunities, increased inequalities, are said to be the negative results. Firstly there is a mixed impact on poverty (HCRT_CAGRt) i.e. financial integration affects poverty positively as well as negatively; secondly there is no direct relationship between both; and thirdly there are many other factors affecting poverty like, growth (PCNNP_FCt), employment, education, etc. Thus, the net impact of financial integration (FDI_PER_GCFt) on poverty (HCRT_CAGRt) is observed to be insignificant.  
Trade integration (EXP_IMP_GDPt) has been observed to have no impact on the poverty (HCRT_CAGRt).  
Theoretically, the level of growth (PCNNP_FCt) is a very strong determinant of poverty (HCRT_CAGRt). Higher growth is expected to trickle down to the poor in terms of increased employment opportunities, increased resources for the redistribution, higher output, etc. But contrary to the theory, in India it has been observed that there is no significant relationship between growth (PCNNP_FCt) and poverty (HCRT_CAGRt). This emphasizes the fact that growth does not trickle down to the poor and benefits only the rich, who have access to resources to benefit out of higher growth.  
In India, growth has observed to be failed to include the poor in the process. Insignificant relationship between growth (PCNNP_FCt) and poverty (HCRT_CAGRt) can be explained with some other intermediate links between growth and poverty. As has been discussed earlier, employment ratio is actually declining throughout the period of financial integration in India. In fact enhanced employment opportunities for poor can be the major link with which growth gets translated into reduced poverty. But in India, increased growth has not been observed to have enhanced the employment opportunities for poor and growth has failed to reduce poverty.  
Secondly, enhanced economic growth may also enhance the growth in the sectors and regions which are closely associated with the poor. For example in India, agriculture sector, other agro-based activities and the whole unorganised sector is closely associated with the poor. Poor earn their livelihood from these sectors and provide factors of production to these sectors. Thus poor benefit directly from the growth in these sectors. Unfortunately these sectors have remained excluded from the process of financial liberalization and financial liberalization-led-growth and failed to reduce poverty.  
It has been observed in India, that financial liberalization has forced India to hold a larger
amount of foreign exchange reserves with increasing financial integration to avoid capital flight. This in turn has been found to have led to reduced incomes and growth potential, affecting poor adversely.

A very high and significant correlation has been found between financial integration (FDI_PER_GCFt) and growth (PCNNP_FCt); as well as between growth (PCNNP_FCt) and poverty (HCRT_CAGRt). But, the regression findings indicate the fact that growth is not trickling down to the poor. Though financial integration (FDI_PER_GCFt) has been found to have enhanced growth (PCNNP_FCt), the relationship is not very strong. This financial integration-led-growth is not found to be inclusive. The poor are unable to enjoy the fruits of growth. Thus in case of India one does not observe a strong relationship between financial integration (FDI_PER_GCFt) and growth (PCNNP_FCt) and no significant relationship between growth (PCNNP_FCt) and poverty (HCRT_CAGRt).

This also underlines the role of the government in poverty eradication. As growth has not been observed to have benefitted poor on its own, the government has to play a role of the mediator and have to make growth more pro-poor through various complementary policies.

The literature review has emphasized financial deepening as a major link between financial integration and poverty. But in India, one observes an insignificant relationship between financial deepening and poverty. In India, financial sector development has not actually observed to have benefitted poor in terms of greater credit availability. Thus it can be concluded that greater variety of financial instruments, financial innovations, more availability of credit have benefited only few.

In theory, financial integration leads to the financial sector development, which enhances financial deepening i.e. increases the availability of credit to the poor and helps to reduce poverty. Financial integration also facilitates stock market development, enhances the competition in the banking sector, introduces innovations in the financial products and helps to enhance growth rate and reduce poverty through enhanced growth rate.

In the present study, financial deepening has been included as one of the explanatory variables in the regression. A high level correlation has been found between financial integration and financial deepening, but the variable has been excluded from the regression analysis indicating the failure of the financial sector development to benefit poor. Thus, it can be concluded that financial integration has failed to improve the ability of the poor to avail the benefits of financial
integration and financial sector development. It has been observed that financial sector reforms in India have improved the ability of private agents to save and invest, it has strengthened the financial system, the regulation and the supervision of the financial intermediaries and more generally improved the social and legal infrastructure; but these benefits have not been observed to have reached to the poor.

To conclude, financial integration-led-financial sector development has increased the credit availability mainly for established borrowers and not for poor and small scale and medium scale firms which are essential for poverty reduction.

In India, lower income level, macroeconomic instability or deficiencies in the regulation and supervision of financial institutions have been observed to have hampered the credit availability to the poor. The savings by poor also remain limited due to high fixed costs or low economies of scale associated with opening bank branches in rural areas and again the poor may not get adequate access to financial services. Thus, access to the credit or financial services by poor is said to be remained limited in India due to number of reasons. Besides informal sector plays more crucial role in providing financial services to the poor. However, financial liberalization is observed to be concerned with only the formal financial sector, not improving the credit and financial services availability to the poor.

Finally, it can be stated that the focus of financial integration in India has been mainly on liberalizing interest rates and encouraging entry into the formal financial institutions. These are observed to be insufficient to improve the poors’ access to credit and financial services. Financial sector reforms have not specifically undertaken the development of the institutional structure and new instruments to satisfy the financial needs of small enterprises and the poor, which could have helped to reduce poverty.

It has been observed that Indian performance in the financial sector is slow compared to the high-income and fast growing countries.

The regression of the transformed variables has given following equation:

\[
DLOG_{\text{HCRTCAGR}}_t = -0.005 - 0.53(DLOG_{\text{PCNNPFC}}_t)
\]

This equation shows that growth is the significant negative predictor of poverty. Growth explains 11% of the variation in the poverty.
If growth is increased by 1 unit, poverty decreases by 0.53 units. It can be concluded that, growth is the only significant and negative predictor of the poverty. Though the strength of the relationship is not strong, the fact that growth explains poverty to a very limited extent is in accordance with the empirical facts.

6.4 Conclusions
The following conclusions can be reached on the basis of the findings of the study.

1. It has been found that the level of investment is the strongest predictor of growth and there is direct relationship between investment level and growth. Thus, it can be concluded that the investment level in an economy plays a crucial role in explaining the variations in growth.

2. Though financial integration affects growth, it has been found that financial integration is not a strong predictor of growth. Financial integration and growth are observed to be positively related i.e. increased financial integration enhances growth, although the strength of the relationship is not very strong. It has been observed that underdeveloped infrastructure, lack of quality social infrastructure, underdeveloped markets, lack of institutional set-up have created difficulties in the effective use of external funds. To conclude, financial integration in India has ultimately resulted into weak relationship between financial integration and growth due to these reasons.

3. Financial integration, when introduced as a dummy, has also been found to be positively related with growth. It can be concluded that the growth has been robust in the periods of financial integration as compared to the period of financial repression.

4. A high and negative correlation between the financial integration and poverty in India has been found in the present study. However, the regression analysis excludes financial integration from being insignificant predictor of poverty. It can be concluded that financial integration does not play any direct role in explaining poverty. There is complex, distant and multidimensional relationship between financial integration and poverty in India.

5. In the present study, financial integration has not been observed to affect poverty in India directly. Thus it can be said that the links between financial integration and poverty like growth, financial deepening, inequalities, employment, etc. have important mediating role to play.

6. Very high and significant correlations between financial integration and growth as well as between growth and poverty have been found in the present study. But the analysis highlights the
fact that growth is not trickling down to the poor. Though financial integration enhances growth, the relationship has not been observed to be strong. Thus financial integration-led-growth has not been observed to be inclusive. It is found that the poor are not enjoying the fruits of growth. In case of India, it can be observed that there is no strong relationship between financial integration and growth and no significant relationship between growth and poverty.

7. As the findings show that growth is not the significant predictor of poverty; it can be concluded that the growth has bypassed many of India’s poor. Insignificant relationship between growth and poverty may be explained with declining employment ratio. The fact that financial liberalization-led-growth has not touched upon the sectors related to the poor, i.e. the whole unorganised sector, agricultural sector, etc. cannot be ignored. These sectors have remained excluded from the financial liberalization-led-growth process and failed to reduce poverty. It has been observed that India too is using large amount of capital inflows as foreign exchange reserves to protect the economy from the potential crisis. This may have reduced the incomes and growth potential, affecting the poor adversely.

8. As it may be observed that the financial integration and financial integration-led-growth cannot reduce poverty automatically; the role of the government in poverty eradication gains importance. Thus it can be concluded that the government may have to play a role of the mediator to make growth more pro-poor through various welfare policies.

9. The findings of the study show that the youth literacy rate is the only variable explaining variation in the poverty. It explains more than 96 % of the variation in poverty. Thus to conclude, the quality of human capital and all the programmes enhancing the efficiency of human capital are very crucial in the policy of poverty eradication.

10. Youth literacy and poverty have been observed to have strong negative correlation. On the basis of the findings of the study, it can be concluded that the efforts to improve the quality of human capital can help to reduce poverty in India. Higher levels of education, good health facilities, efficient and skilled workforce may make growth transferable to poor and may play crucial role in poverty eradication. Absence of quality human capital may increase the incidence of poverty.

11. It is found that there is a weak relationship between trade integration and growth and no relationship between trade integration and poverty. Thus, trade integration has been found to have failed to explain poverty.
12. Financial deepening which is supposed to be the strong link between financial integration and poverty, has not proved to be significant in the present analysis. Thus it can be concluded that financial integration or financial deepening has failed to enhance credit facilities for poor and has failed to benefit poor. Thus, it can be concluded that financial deepening has failed to be the important positive link between financial integration and poverty in India.

13. An inverse relationship between employment and growth has been found in the present study. Thus it can be concluded that employment do not explain the variation in the growth and growth in India has failed to create sufficient employment opportunities.

14. It has been found that the employment has also failed to reduce poverty as employment itself has declined in spite of the spectacular increase in growth. Strong but negative correlations between financial integration and employment as well as between growth and employment ratio have been observed. The correlation between employment and poverty has also been found to be very strong and positive. This can be explained by the empirical fact of declining employment. It has been observed that growth as well as financial integration in India has failed to create employment opportunities. As India is said to have experienced capital-driven growth or jobless growth, a strong and negative correlation between the two has been found. Financial integration has been observed to have accentuated the trend of jobless growth by enhancing growth without creating jobs.

15. It is a general observation that the FDI influx creates employment opportunities but only for the skilled labourers. Thus, a shift in the pattern of labour demand in favour of high-skilled labour has been observed. An increased wage inequality has also been observed, which may have aggravated poverty in India. Thus to conclude, the poor are excluded from the benefits of increase in employment opportunities.

16. It can be stated with the light of the above findings that government’s social expenditure should not be cut under the policy of fiscal prudence. Government’s social expenditure directly affects the poor and it should be ensured that the money spent on poor is actually reaching to them.

In India, it has been observed that financial integration has enhanced growth rate of the economy and higher growth has generated greater resources to expand transfers and safety nets to the poor. Financial integration-led-economic growth has provided opportunities for redistributing the gains to the poor.
It can be concluded from the findings of the study that financial integration is not meant for poverty eradication. Unless and until the policy of financial liberalization is introduced and designed especially to benefit poor, it won't help towards poverty eradication.

6.5 Policy Recommendations

Financial integration is the part of economic reforms aiming at restructuring and reforming the economic system. The basic objective of financial integration is to develop the financial system, to enhance the external competence of the country and to make country more resilient. As financial integration leads to a well-developed financial system and affects many macroeconomic variables, it helps to achieve the economic objectives like higher level of growth, higher investments, higher savings and stronger macroeconomic framework; and all these benefits are expected to trickle down to the poor. Although financial integration does not affect poverty directly, the policy of financial integration has certain implications for poverty and can be used to reduce poverty through its impact on the variables affecting poverty. It is therefore very essential to see the impact of financial integration on the links leading to poverty eradication and all the efforts should be made to make these links more powerful. As financial integration affects growth but not poverty directly, efforts should be made to make financial integration-led growth more pro-poor.

The following suggestions can be drawn on the basis of the present analysis.

1. As investment level in an economy has been found to be the strongest predictor of growth, efforts should be made to ensure that the financial integration in general and FDI flows in particular are transformed into productive domestic investment, which ultimately gets translated into growth.

2. It has been observed that financial integration is not meant for poverty eradication. This underlines the importance of well-defined and well-implemented complementary policies for inclusive growth. There is a need for a well-defined policy on financial liberalization specially to benefit poor or to help towards poverty eradication.

3. In an attempt to provide more access to the poor and address the problem of poverty, there is a need to modify present financial system. This may help the current financial system to perform better. Credit schemes for the agriculture sector, small scale industries and for backward sectors/sections need to be continued with greater thrust and coverage. Efforts should be made to
enhance credit availability to the poor.

4. Significant correlations between financial integration and government’s social expenditure and between government’s social expenditure and poverty have been found. Therefore, government’s social expenditure should not be cut under the policy of fiscal prudence. This may be directly benefitting the poor and it may be ensured that the money spent on poor is actually reaching to the target group.

This reiterates the fact that financial integration does not affect poverty unless and until it is accompanied with the complementary policies for poverty eradication. India has many poverty elimination and employment generation programmes and programmes for equal distribution of income. The utmost care may be taken at the policy level that, in the course of financial integration, all these pro-poor policies may be modified accordingly and continued for desired results. All the efforts need to be made to implement these policies properly and it may be ensured that the benefits reach to the target group. ‘The role played by directed credit in countries like Japan and the Republic of Korea is well known, at the same time, a crucial element of the industrialization strategy in nineteenth-century Germany and in the early twentieth-century United States, among others’

5. As reporting in the findings of the current study, growth was not accompanied with the higher employment opportunities, employment policy may have to be revamped. Emphasis may be laid on the restructuring of all the sectors in the economy or specifically on the sectors providing employment to the poor to enhance the employment opportunities. Besides supporting generation of employment opportunities in the short-run through employment generation programmes like NREGS, the sectors having higher employment elasticity should be encouraged.

6. As youth literacy is found to be the strongest predictor of poverty, efforts may be made to enhance the quality of human resource in India and this in turn may reduce poverty. India should have very strong and comprehensive human development policy, aiming at efficiency enhancement, skill development and overall employability enhancement of the Indian population.

7. Educational policy may be restructured, so that the poor get easy and concessional access to educational facilities. In fact, employment of the poor may be enhanced in two ways. One may

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be to create employment opportunities for them through restructuring the sectors and the other may be to enhance employability of the poor. An effective educational policy may play very crucial role in enhancing the employability of the poor.

8. The long term objective may be to make the education system as pro-poor as possible. This suggests that the commercialization of the education sector may benefit the rich only and the poor may continue to be deprived from quality education. Unless and until it is introduced with certain poor-friendly concessions, poor may remain excluded from the fruits of financial integration.

9. Skill development programme may be implemented to enhance the employability of the poor. National Skill Development Programme, by the Government of India (Prime Minister Narendra Modi Government, 2014) can be stated to be the first step in the right direction.

10. As financial integration and growth have not been found to be reducing poverty effectively, the government may have greater role to play in poverty eradication by providing better complementary policies. For e.g. concessional or free educational facilities may be provided to the poor, inequalities in an economy may be reduced, by creating employment opportunities for poor and providing greater access to credit.

11. As the links analyzed in this study like growth, financial deepening, employment ratio, have not been found to have reduced poverty significantly, other links between financial integration and poverty which are not included in the regression can be analyzed in detail. Consumption smoothing, impact on inequality, impact on the sectors related to poor, etc. are some of those links.

6.6 Limitations of the Study

- Only linear relationship between financial integration and poverty has been studied in the present study.
- Head Count Ratio is the only available indicator of poverty in case of India. Hence it is the only measure that can be used to represent poverty. Some other comprehensive indicators of Poverty like Multidimensional Poverty Index should be explored and compiled for India on an annual basis.
- The methodology with which Head Count Ratio is measured is complex and controversial. This methodology keeps changing as per the recommendations of the different committees.
Head Count Ratio measured on the basis of two methodologies suggested by two different committees is not comparable. This made it very difficult to compile annual series of Head Count Ratio.

- All the links between financial integration and poverty could not be included in the analysis due to the unavailability of the data.

6.7 Future Research Areas

- Nonlinear relationship between financial integration and poverty can be studied. The present study analyzes the linear relationship between financial integration and growth and financial integration and poverty. A non-linear relationship between financial integration and poverty has been observed in practice. According to the study, in the initial stages of financial integration, poverty increases and when financial integration reaches maturity, it reduces poverty. Thus there is a non-linear relationship between financial integration and poverty that can be explored further.

- The links between financial integration and poverty as a special case for India can be studied individually in depth. The present analysis has studied growth, financial deepening, employment opportunities, as links between financial integration and poverty. There are many other links such as consumption smoothing, impact on inequality that could not be explored in the present analysis. Those links can be explored in depth with special reference to India.

- The present research makes it very clear that financial integration and growth are not trickling down to the poor. Thus, existing complementary policies need to be altered to enable the poor to participate in the growth process and benefit out of the policy of financial liberalization and financial integration-led-growth. A policy research can be undertaken with respect to the required policy changes to make growth and the policy of financial liberalization pro-poor.

- A negative relationship between growth and employment ratio and a positive relationship between employment ratio and poverty has been found in the present study. As this finding is quite contrary to the theory, an empirical research can be undertaken to analyze and research the relationship between growth and employment and between employment and poverty.