

## CHAPTER 7

### SUMMARY AND CONCLUSION

#### 7.1 Summary of Empirical Finding

Labor productivity takes vital roles to energize the economy from both public and private path. In order to gain a better understanding of the role of public capital and private capital to labor productivity, this study attempts to investigate the role of both types of capital to labor productivity via production function which ameliorates with human capital and catch-up technology, and the appropriate technological approach of each sector.

For an overall view, during 1970 to 2003 the compound growth rate of labor productivity of the whole economy is found to increase approximately 3.54-3.60 percent throughout 34 years. The growth of labor productivity of agricultural, industrial, and service sector increased as 2.10, 0.91, 0.64 from 1970 to 2003. The agricultural sector generates the most significant increase in labor productivity. While, the service sector has the least increment in labor productivity.

To investigate the role of public and private capital to labor productivity the secondary data between 1971-1999 are estimated. The whole economy and the industrial sector produce with the Hicks neutrality approach and account the human capital with catch-up technology as an input factor. Both of them indicate a strong positive significance of private capital to labor productivity, but the negative significance of public capital, catch-up technology and labor. With this technological approach the public investment should be less but emphasize more on promoting the investment of private capital with no need to favor any particular input factor.

For the agricultural sector, the public capital has a positive effect on the labor productivity though not significant. According to its characteristic, Harrod approach, the government should directly activate the human capital and enhance the technical knowledge to the agricultural labor. It gives a supporting reason for government to invest in agricultural sector in order to enlarge the

productivity of labor. However, to push the labor productivity of agricultural sector enhances private sectors to invest is rather good than itself. It is explicit that the land has an insignificant effect to labor productivity it might possibly be explained by an unproductive land. The economic crisis has made a positive result to labor productivity, for the possible reason that skilled labor moved from industrial sector to this sector, which is the absorbed sector.

The result of service sector producing with the Harrod neutrality approach reaffirms the importance of the private capital to output. According to the selected technical progress, it verifies the essence of highly educated and skilled labor required. The dummy of crisis is similar to the agricultural sector, positive. The private capital is the only factor that performs the positive and significant effect to output. Therefore, the private capital should be encouraged to invest along with labor improvement.

In this study, the human capital, or  $A(H)$  in this study, computed by the catch up technology seems to face a problem. The assumption is the greater human capital, the more output produced; but in the study,  $A(H)$  has a negative relation to the output. It might be possibly explained that human capital, proxied in this study by educated people, is not effective. Another explanation is the problem of technological utilization. Moreover, it is possible that knowledge has not been genuinely transferred from the leading country according to the definition of  $A(H)$ .

Comparing between the effect of public capital and private capital to labor productivity, we found that the private capital contributes the average percentage change in labor productivity more than the public capital does. For the whole economy, holding the other input constant, a 1 percentage increase in the private capital makes 1.537 percentage change in labor productivity greater than public capital. The similar features are found in the agricultural, industrial and service sector as 0.909, 1.237 and 1.284 sequently.

In the whole economy the economic crisis shows no outstanding effect to output, but it does have effect on the other sectors. The possible reason might consequence by the ability of Thai economy to absorb the crisis outcomes occurring among industries.

In conclusion, the private capital that is always positive with a great affect on the labor productivity no matter what functional form or sector is. In

contrast, the public capital is negatively affected on labor productivity except the agricultural sector. This may imply to the ineffectiveness of management and allocative resource of public capital. The government might aim to extend the productivity to a wide range of people, and distribute income for the humanity reason. Hence, the policy that focused on providing an important service to activate efficiency is not quite concerned.

## **7.2 The Policy Recommendation**

The implication of the overall estimation indicates that the government investment has less effect to labor productivity than business sector. Therefore, the improvement of the public capabilities to assist industry and firms must be contributed by enhancing the private sector to invest instead of investing by itself.

The government shall provide the context and promotion that encourage the private sector to invest and sustained upgrade such as strengthen the intellectual property protection, encourage competing among firms, provide the better information system to people, and raising the awareness about the importance of training and educating of the present and prospect employee to general concerns.

With no need to change the main policy or effect on the public investment scale, many projects can be produced, especially to improve the effectiveness. For example, reducing the overtapping works between agencies through a clear division of role and responsibility between these agencies, simplified supporting schemes and reduce bureaucracy, and enhancing the labor news or articles about skill promotions.

The agricultural and service sector producing with Harrod neutrality should be focused on escalating the quality of human capital as well as eradicating the impediment of transferring technology in order to decrease the negative effect to the labor productivity. The educational and training system shall be well organized to produce effective graduates.

Furthermore, the transferring knowledge should be enhanced its complement factor; such as providing the matching course to the need of industries, increasing the number of exchange students to leading countries.

Luckily, Thai economy has flexible efficiency to absorb the crisis. However, the competitiveness, determined by the productivity, must be focused in order to prevent the crisis and contribute sustained growth. If labor costs increase without continuous improvement in productivity and quality, Thailand will become increasingly uncompetitive.

### **7.3 Limitations and Suggestions for Further Study**

- In order to obtain a more general implication about the long run tendencies of structural change in Thai economy, we should extend the period of analysis beyond 1999, which is the most update data of we have now. However, a suggestive paper. It is hopeful that this study will possibly be fruitful for further development researches and initiate ideas.

- The technical approach might be extended beyond three approaches used in this study, Hicks, Harrod and Solow neutrality to examine the most appropriate approach of production function.

- There are many factors effecting production function such as cost of imported inputs (oil), or the economic, legal and institutional environment which can be agrued further about the model.