

Chapter VI

Conclusions and Possible Policy Implications

The estimation results and a discussion of implications have been manifested in chapter V. In the last chapter, conclusion of the study is contained in the first part, followed by the policy implications and finalized with further study suggestion.

6.1 Summary and concluding remarks

According to the purpose in order to investigate cost determinants of the Thai FDA due to the recent trend in the sharply increasing of FDA size and scope of tasks, the study built on the application of the multiproduct cost function approach. There are two basic categories of explanatory variables required to estimate the total cost functions:- output volume and input prices. Enforcement activities of the agency were used as a measure of 'output'. Two types of outputs, pre and post-marketing activities, are employed as the basis for the models. The outputs are further disaggregated into subsets of each activity because there are many output categories available and for the question of how these outputs affect FDA costs. Input prices were measured in term of the actual expenses incurred by FDA. In this study, annual salary per the number of staffs was used as the price of labor.

Total cost is defined as the sum of labor, capital and operational expenditures. The study used the concept of opportunity cost of land and amortization on capital expenditures to adjust cost data available. Since the study covered only the administrative costs, thus any economic loss resulting from social regulation was

excluded. The budgets allocated to provincial health offices for consumer protection activities were also excluded.

In summary, the findings presented in the previous chapter do not, however, seem to support the hypothesis of the positive relationship between costs and outputs of the Thai FDA. It could be concluded that the total cost levels of the Thai FDA cannot be explained by the quantitative volume of its outputs. The only output that was significantly and negatively related to the cost level is product registration (Q_{12}). The total cost elasticity with respect to product registration was 0.37 and the elasticity of pre-marketing cost was 1.37. This result might be used to conclude that increases in the volume of product registration would lower the level of costs. However, these estimates do not lend themselves to direct interpretation.

As labor intensive characteristic, Thai FDA had its cost elasticities with respect to wage rate ranged from 1.5 to 1.9. It could imply that 1% increases in wage rate would promote greater cost level 1.5% (to 1.9%). It should be noted from data description that the proportion of labor expenses in total cost components was in the average ranges that higher than 30%. It is probably a consequence of the high proportion that made the result seem to be consistent with the hypothesis. Further, a sudden increase in public education expenditure in 1998 had no statistically significant effect on total cost. On the other hand, the rise in administrative structural changes after the year 1992 might lower the cost level of post-marketing activities. R^2 values that were high, infer that the explanatory variables employed in the models are good determinants of the FDA costs.

The application of each variable in the study without considering other factors may not be appropriate. The measurement of variables, especially 'output' indices, is one of the most important factors that influences the models of cost function. Although this analysis conceptualized FDA output category only on pre-marketing and post-marketing activities, it is worth recognizing that FDA output category can be defined in a number of other ways which may result in different findings. For example, output that defined by 'public education product' has also expanded in recent years. Unfortunately, data are not currently available to study in this way.

In addition to 'output' indices, the figures of costs obtained in the study might not be accurate due to a lot of steps in data adjustment. There may be other important fixed-cost components of FDA administration which did not include in the study. In general, administrative fixed costs have both capital and non-capital related components. In the past, the capital requirements of administration consisted mainly of office facilities needed to carry out the functions of FDA. As the FDA responsibilities has become more essential, capital requirements for effective FDA administration have thus grown to include computer-based information systems. These capital assets including cars, building and land cost or non-capital fixed costs such as administrative overhead have already subsisted in the cost components, using amortization method to spread out over their useful lives. In this study, such the fixed capital costs, however, have relatively low representation of FDA administrative costs.

Since little has been published in the area of FDA cost and production behavior, the model formulation in this study implies that only output quantities are

exogenously determined. Eventhough managerial capability is not measurable, it is an obviously important factor that influences the administrative expenses and various outputs produced. As a result, the appropriateness of interpretation from this research findings to the FDA operating within the current regulatory and administrative environment should be seriously questioned due to this exclusive factor. Hence, for a number of reasons, the findings should be interpreted with caution.

6.2 Possible policy implication

The success of any government programmes depends on the quality of decision making in the production processes. If FDA is able to utilize resources available to maximize its outputs within the minimum levels of expenditures, the government will be able to save more resources for other high-priori tasks. With all limitations described before, this study provides an interesting way to look at the characteristics of a government agency in Thailand. The current interest in FDA roles is related partly to the expectation of the efficiency-increasing and/or quality-increasing. Therefore, even if there had been no change in the external environment in which FDA operate, changes in the FDA itself would help it survive in the current situation.

Based on the empirical findings of this study, the government can have an advantage in discernment various effective ways to efficiently utilize resources. One of the effective ways is to adopt and fully implement the output budgeting system instead of the traditional input budgeting allocative system. The advantage of output budgeting system is that the outputs and outcomes of any government agencies would

be generated clearly and there must be a strong evaluation and continuously monitoring system.

In regard to FDA, some inferences could be obtained in order to reduce the inefficiency performance. First, budget allocation should be determined up to the volume of outputs produced. Secondly, effective measurement and standard operational procedure should be carefully designed in order to be as a managerial tool for accurate monitoring and evaluation system. Thirdly, for the inexperienced staffs, training programmes should be introduced to gain the practical knowledge. It would be very helpful to increase the productivities by no more necessary increasing in the levels of labor expenditures. Fourthly, FDA is also required to maintain a certain minimum level of tangible fixed costs to meet the various administrative requirements of operation. Lastly, elaboration a vision and strategic orientation for synergy and coordination between ongoing development projects and activities should be enhanced by involving local decision makers and other relevant actors.

6.3 Suggestion for further studies

Though this study used the most measurable data available on FDA, it is important to recognize that reliance on even the best data may be somewhat problematic for the purposes of policy analysis in an agency undergoing the degree of transformation now observed in the government sector. Two related trends that have become obvious, especially after 1992, are the increasingly competitive market-oriented nature and the paradigm shifted to decentralization process. Just as the results of this study may no longer be relevant for future, ongoing change may limit the

generalizability of the findings presented in this paper. It is interesting to alleviate the shortcomings of this study and examine in future studies other factors such as managerial capability or the introduction of some new regulations and policies that could affect the levels of costs. The significantly negative effects of the cost elasticities with respect to the amounts of product registration invite a further study to examine its distinctive production characteristic. The empirical finding about dummy1 variable serves a more detailed observation on administrative structural changes that might affect the levels of costs, particularly post-marketing activities. Some interesting relevant issues such as economies of scale and economies of scope, productivity, x-efficiency, and other costs of regulation eg. compliance cost and efficiency-loss cost could be evolved from the cost function of the FDA. Thus, as new data becomes available, it will be of critical essence to update this analysis to determine whether evolution of other factors and environmental conditions alter the nature of FDA and its production characteristics.