CHAPTER 5

CONCLUSION AND IMPLICATION

5.1 Introduction

The economic profits signal the social value of inter-industry resource allocation. Positive economic profits in a market indicate that the social value of resources producing that product exceeds their value in their next best alternative use. Thus, the economic profits will attract entrants, whereby entrepreneurs have an incentive to bid resources away from alternative uses. Erosion of incumbent's market power is likely to occur if the new entrants have the same technology as the incumbent monopolist. Entrants provide alternative sources of supply to consumers, thereby reducing the profitability of raising price above marginal cost. If entry is easy, then market power is eliminated by entry, and the equilibrium price should equalise marginal cost, and economic profits will be zero in the long run. When economies of scale is not relatively large, market power can only persist in the long run if there are barriers to entry that limit the extent of competition. If economies of scale exist, then free entry will eliminate economic profits, and firms will only be able to exercise sufficient market power to ensure that their economic profits are zero. Entry is impeded when entrants anticipate that their profits post-entry will be negative. A number of factors have been identified as contributing to barriers to entry, which will disincentive the entrants to enter.

Entry barriers can be differentiated between those created by government and structural characteristics of the market. Government create entry

barriers when they grant exclusive production rights to the incumbent and use their monopoly on the legal power of coercion to prevent entry by other firms.

There are structural characteristics in an industry that are entry barriers, which protect the market power of incumbents without attracting entry and reduce the profitability of entry. Entry deterrence conditions the anticipation of negative profits post-entry by entrant. An entrant's profits post-entry will depend on the structural characteristics and the nature of competition post-entry. The nature of competition post-entry will depends on the behaviour of the incumbent. The more threats by the incumbent to act aggressively post-entry, the lower the entrant's profits. The threats means that it is profit-maximising (when faced with actual entry) for the incumbent to behave aggressively either by maintaining production levels or charging low prices.

The profitability of entry depends on the nature of competition. This study examines the intensity of competition among companies listed on the Main Board of Kuala Lumpur Stock Exchange using annual data for period of 1985 – 1999. The analysis is based on competition within the sector in which the firms are listed. There are 9 sectors, namely construction sector, consumer products sector, finance sector, hotels sector, industrial products sector, mining sector, plantation sector, properties sector and trading/services sector. Apart from this intra-sector analysis, a comparison study of the intensity of inter-sector competition is also conducted.

In order to study the competitive dynamics and measuring the intensity of competition within an industry or economy, the following parameters are of interest:

i. the long-term equilibrium rates of profit of individual firms. It implies whether there are firms that have persistent above (or below)-the-norm profits (usually approximated by the average rate of return in a cross-section of firms) even in the long run. Upon the demeaning process, it is replaced with YLR that indicates the long-run equilibrium profitability.

ii. the speed of adjustments towards the long-term level $(1-\lambda_i)$. Conversely, the degree of persistence is represented as λ_i. The higher the value of λ_i, the lower the speed of adjustment, which indicates the existence of various barriers to entry that permit persistently high profits (which may either be due to monopoly power or good management).

5.2 Main Findings And Implication

Based on the empirical results in Chapter 4, we can conclude that Augmented Dickey-Fuller (ADF) regression model without the lagged difference term performed as the best model to describe the dynamics of competition within each sector using time-series analysis. In contrast, the ADF regression model with lagged difference term is the worst model. At the same time, the revised ADF model or the model that is selected based on the Schwarz criterion stood in between both models. The rank of performance for each model is consistent, whereby ADF model without lagged difference term always outperformed revised ADF model that in turn outperformed ADF model with lagged difference term in various aspect of comparison.

Our decision on the persistence of each sector can be based on 2 perspectives. Based on the ADF model without lagged difference term, the findings suggest that the finance sector, hotels sector, industrial products sector, mining sector, plantation sector, properties sector and trading/services sector do not have persistent abnormal profits. In contrast, construction sector and consumer products sector have persistent abnormal profits. For both these sectors, it must be emphasised that the evidence supporting the findings is not extremely strong. The non-rejection of the hypothesis of persistent abnormal profit is only marginal at the 10% level.

Alternatively, the decision on the persistence of profitability in each sector can be based on cross matching among the three ADF models. This approach indicates that the industrial products sector, properties sector, and trading/services sector do not have persistent abnormal profits. This indicates that the competition within these 3 sectors were stiff, that the past performance of firms in these 3 sectors would not enable one to anticipate the performance in the near future. In other words, the incumbents in these 3 sectors could not sustain their past profitability level in the near future due to the intensified competition. However, these results may not realistically reflect the real situation for industrial products sector and trading / services sector because there are many industries that formed these 2 sectors. In other words, the mixed situation of profitability in respective industry (i.e., persistent abnormal profit in industry A and non-persistent abnormal profit in industry B) might have averaged the effect of sectoral profitability, which leads to conclusion of absence of persistent abnormal profits. On the contrary, the construction sector has

persistent abnormal profits. At the same time, the 5 remaining sectors' status were questionable due to inconsistent indication among these 3 models.

This study also found that the average degree of persistence in profitability range from 0.1 to 0.5 at the individual firm level. This implies that the time period required for a 10% abnormal profit to be reduced to 1% is in the range of 1 to 4 years. On average, 80% of the firms included in the analysis do not experience long-term abnormal profits. This means that the excess profit of majority of the firms tends to zero in the long run. Overall, the properties sector has the highest percentage of firms with significant long-term abnormal profits.

Although there are firms earning abnormal profits, the number is small. Persistence of profitability is mainly found for the construction sector and abnormal profits for the properties sector. The results are not surprising as the property sector boom was witnessed during the first half of the 1990s.

This study suggests that the intensity of competition among firms listed in the Main Board of KLSE is great, driving profit in excess of the normal level to zero in the long-term equilibrium. The highest level of average rate of return 5.64% (for consumer products) is by far lower than that reported by Glen et al. (2001) for countries such as India, Jordan, Korea, Mexico and Zimbabwe. Excess short-run profits are adjusted rather quickly, with a speed of adjustment of no more than 0.6 on average. This speed of adjustment, however, is higher than those reported by Glen et al. (2001). The results suggest that the low average rate of return makes entry less attractive and hence, adjustment towards the long-term zero profit could take longer.

5.3 Limitations Of The Study

First, our interpretation of the data rests on the structure of the model, a structure that cannot be adequately evaluated. Consequently, it is difficult to decide whether the persistence of profits that we observed was due to a slow response by entrants to profit signals, or to a weak effect those entrants have on profits.

Second, owing to the proposition that competitive markets equalise rates of return across industries, the rates of return is used as an indicator of market power. Rates of return in excess of the cost of capital promote output expansion in competitive markets, and they can be maintained in excess only if there is market power. However, one of the problems with available rates of return and other measure of profitability is that they are based on accounting data, which differ from economic rates of return. Accounting practice typically uses historical costs to compute rate of returns. Rates of return are being used as a signal for the need for output expansion or entry, and hence it is the rates of return on a forward-looking basis that is relevant. Expenditures on advertising, research and development, training, etc., provide benefits beyond the current period. Accounting conventions require that the entire amount of such expenditure be treated as an expense in the period in which it is incurred, rather than capitalised and treated as an investment. This creates a divergence between the economic rates of return and the accounting rates of return. Third, a firm may appear to be earning economic profits, but in fact its excess return is not due to market power but to superior efficiency. A firm that is more cost efficient than other firms will appear to earn economic profits even if it is a price

taker. The nature of cost efficiency is difficult to measure, and is not investigated in this study.

5.4 Recommendation For Future Research

This study could be extended to examine various factors that might contribute to the degree of persistence by using enhanced econometric models, which are robust to take into account the nature of the panel data. Also, a longer set of time-series data will be useful in making the econometric inferences more reliable. With a longer time frame of study, more firms could be included and this would increase the representativeness of sectoral analysis. With sufficient data points, the other aspect that could be investigated is profit volatility.