"Utilization of Economic Analysis in Cartel Regulation – CRPC Handbook Series No.2 – "

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The cartels are main topic of enforcement of competition policy in any country naturally regarded as illegal. In Japan, cartels are prohibited on the Anti-Monopoly Act as an unfair trade restraint, and considered most common type of violation. This is because, as economics shows, a cartel, not only price cartels but production cartels or market-dividing cartel – causes higher prices by restrict competition and damages economic welfare by reducing production and consumption.

This research, focus on which industry has likelihood of cartel occurring, more specifically the regulation between cartels and each factors on industrial mechanism on a basis theoretical analysis in order to deepen understanding economic way of thinking or economic analytic method for the cartel regulations.

This research picked up cases relating to the manufacturing industry in all the cases prosecuted by the JFTC between 1990 and 20041 and analysed the factors to prompt a cartel; demand factors and supply factors, in order to verify the factors on industrial mechanism to prompt or prevent a cartel. This study adopted growth in shipment value and its fluctuation as a demand factor, inventory per plant and an acquisition value of the machines per plant for a barrier to entry as a supply factor, and the Herfindahl-Hirschman Index (HHI, sum of the square values of the companies' market share) or the market concentration rate of the top three companies (CR3) as an indicator of market concentration.

The findings of the empirical study regarding the relationship between the occurrence of cartels and structural factors of the industry are as follows. It was showed that demand factors, both growth in shipment value and its fluctuation, had a statistically significant negative relationship with the establishment of a cartel. On the other hand, it was showed that supply factors, inventory per plant and the acquisition value of machinery per plant, had a statistically significant positive relationship with the establishment of a cartel while, as for market concentration, both HHI and CR3 indicated a negative relationship with the establishment of a cartel though it was insignificant statistically. Comparing these results with the theoretical analysis, they showed similar outcomes except for the growth in shipment value and market concentration, granting support to the theoretical hypothesis. Analysis showed above revealed that a cartel is more likely to be created in the industries where market size is decreasing, demand environment is stable with a clear prospect for the future economic environment, and/or have high barriers to entry such as which are demanded a large amount of initial investment.

From the analysis showed above, we have predicted a probability of occurring cartel. According to prediction the seven industries out of top ten of indication have caused actually. On the other hand, there are industries which have caused cartel with low indication. For example each of livestock food product manufacturing industry and manufacturing industry of canned vegetable/fruits and non-perishable farm food products, showed low indications although they have caused cartels. In these industries, it is suggested that some additional factors are worked other than structural factors of the industry, which we applied as explanatory variable.

Finally, it was concluded that the practical application of this study can be utilized for the competition agency to better identify and select the industries in which cartels are functioning. Considering the fact that which industries the agency showed prioritise its resource, it must be an efficient decision to allocate their resources to overseeing the industries which evidently have statistically high incidence factors of cartels.

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