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PERFORMANCE

High organizational performance is positively related to the corresponding relationships between the structuring processes and organizational context. The results shown during the research with Malaysian plants confirm that the corresponding relationship between turnaround organizational size and the level of formalisation and centralisation in the structuring process significantly contributes to the high organizational performance of plant turnaround maintenance. This finding supports the earlier discoveries that companies organised and managed their plant turnaround maintenance organizational resources differently depending on the salient characteristics and organizational context of the turnaround maintenance.

TECHNOLOGY, SIZE, AND SALIENT CHARACTERISTICS OF TURNAROUND MAINTENANCE

There is a significant difference in the frequency of turnaround maintenance among the processed based plants covered in the case study. The contributing factors leading to such a situation include the nature of the plant technology, the number of days allocated for the turnaround events, compliance to statutory regulations, and economic reasons such as costs, inventory, and volumes of sales. As highlighted by Kenyon (2004), Roup (2004), Casa et al. (2009), the frequency depends a great deal on the maintenance strategy of the company. Even though turnaround maintenance is technology driven, the technology

is manageable that allows maintenance strategies to be formulated in such a way the turnaround maintenance event is planned in the most economically justified frequency. This is crucial for the organizations as their successful business operations depend on the ability of their management to efficiently utilise the factors of production (Khalidah et al., 2008). Essentially, one of the elements of production that is discussed in this study is capital, which includes the plant technology that is used in the productions processes. The following analyses provide the evidence that the frequency of turnaround event is related to the plant technology, the number of days allocated for the implementation of the turnaround maintenance activities, and size of the turnaround maintenance.

THE FREQUENCY OF TURNAROUND AND PLANT TECHNOLOGY

The output of the Kruskal Wallis test shown in Table 4.1 indicates that there are significant differences in the frequency of turnaround maintenance between the two categories of plant technology namely petroleum-based and non-petroleum-based industries; x^2(df=5, n=49) = 30.38, p = 0.001 < 0.05. Companies in the petroleum-based industries perform less frequent turnaround maintenance. They plan their turnaround once in three years, once in five years, or even to the extent of once in six years. They consist of oil and gas refineries and petrochemical plants. However, most of the companies in the petroleum-based industries planned their turnaround once in three years.

On the other hand, companies in the non-petroleum-based industries conduct more frequent turnaround maintenance that is twice a year or once a year. Nevertheless, most of the turnaround events are carried out once a year. They include electric power generating plants, cement plants, the manufacturer of basic chemicals, and manufacturers of vegetable oils, palm oil, and fats. There are few that plan the event as frequent as twice a year, which include cement plants and manufacturer of basic chemicals. However, four massive electric power generating plants reported conducting their turnaround less frequent including two that planned once in two years and another two once in three years.