

2017

February

Managing Engineering Innovations in the Palm Oil Industry

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The engineering innovation outlook in Malaysia is not very good. The estimated number of technical people in Malaysia was reported to be only around 0.7 per cent of the workforce as compared to 30 per cent in the advanced countries. The government has set up various agencies and has launched various policy guidelines to create the ecosystem that can stimulate and sustain innovation and creativity in the palm oil industry. More incentives and support from all related agencies are needed to encourage capital investment in innovation. Entrepreneurs planning to seed technology innovation into the palm oil industry must provide in-depth technical guidance and engineering support services to the millers to ensure efficient plant operation and maintenance. Without adequate technical support services, the technology cannot develop its roots in the industry and the potential innovation is pre-maturely dismissed as an unsuitable technology for the palm oil industry. Potential disruptive technologies, such as the Evaporator Technology and the ORC (Organic Rankine Cycle) Biomass Power Plant Technology, need to be recognised and managed differently. The entry of the disruptive innovation, such as the Evaporator (zero liquid discharge) Technology, into the palm oil industry may initially be confined to a limited market segment, such as near to population areas, before becoming the standard practice in the industry eventually. The ORC biomass power plant may enter into the palm oil industry at the start as a BOOT (build, own, operate and transfer) project. The sound financial viability of the BOOT project will quickly convince the palm oil millers to invest in the new innovation themselves to replace their existing inefficient boiler and steam turbine systems. The established related businesses, that are going to be affected by the potential disruptive technologies, must not ignore the entry of these disruptive innovations. They must adopt appropriate management practices that enable them to fit in with the ongoing disruption in the marketplace in order for them to survive. Mill owners, who are alert enough to recognise the emergence and presence of disruptive innovations, would take the appropriate preventive measures to safeguard their interests.

Keywords: *Technologies, palm oil industry, sustaining innovation, disruptive innovation.*

