

Talk on Operations Management

ENGINEERING EDUCATION TECHNICAL DIVISION

reported by



Ir. Chew Weng Yuen

The Engineering Education Technical Division co-organised a talk on "Operations Management" with Engineers Australia Malaysia Chapter and the Institution of Mechanical Engineers Malaysia Branch on 14 September 2016, at Wisma IEM. The talk, delivered by Ir. Dr Ling Chen Hoe, Senior General Manager and Director of Meiden Malaysia, was attended by 30 participants.

Ir. Dr Ling described operations management as a transformation process where inputs (material, machine, manpower, method and money) are transformed into outputs (products and services).

The transformation process involves planning, organising and control by the management.

EFFECTS OF ENVIRONMENT

The effect of environment on the transformation process was discussed. This includes customers, suppliers, competitors, regulation, economy and technology, all of which play a crucial role in determining the type of operational decisions and actions which may be deployed by an organisation for its outputs. Ir. Dr Ling said that "the environment will affect the operations management and strategy that an organisation may adopt in the design, planning and control and improvement process."

He gave examples of various customer value propositions and the corresponding operations strategies adopted by organisations in the respective industries.

The strategic role of operations management in an organisation is another aspect to consider. He explained how an organisation, through the transformation process, can add value to its products or services and provide an output with a cost and value advantages.

FRAMEWORK

Ir. Dr Ling said operation managers are concerned with how their efforts to plan, organise and control may affect human behaviour. He continued with discussions on the contribution of behavioural science in scientific management and its parallels to the need theories of motivation.

SUPPLY CHAIN

He then illustrated the supply chain network and gave examples on the supply chain lessons learned from prominent organisations. The sustainable supply chain framework was also discussed before he proceeded to another important aspect of operations management, quality control. The Ishikawa (fishbone) diagram and the Six Sigma were discussed as well as how organisations use these tools to control quality on the transformation processes. He also briefed participants on the Six Sigma methodologies and the Lean Six Sigma management of reorganising processes and solving defects or problems.

INNOVATIONS

"Innovations can assist in improving the transformation process by reducing operation cost and hence enhancing value to the customers," said Ir. Dr Ling who then explained the application of the conventional logic versus the value innovation logic on the Five Dimensions of Strategy, namely on industry assumptions, strategic focus, customers, assets and capabilities, and products and service offerings.



Ir. Chew Weng Yuen of the Engineering Education Technical Division presenting a memento to Ir. Dr Ling Chen Hoe

Disruptive innovation enablers such as cloud computing (new technologies), SaaS subscriptions (new business models), and new value chains as used in Intel, Dell, Microsoft, Apple and Google were also discussed briefly.

As expected, the culture of an organisation plays an important role in its operations management. Ir. Dr Ling cited several examples where culture may affect the environment of the transformation process of an organisation.

NEW TRENDS

Lastly Ir. Dr Ling discussed new trends in operations management. He said operations management is traditionally seen as a system involved with the manufacture and production of goods and services whereas the modern view perceives it as a system designed to deliver value. ■

Note: The above report was prepared with the aid of the presentation slides by courtesy of Ir. Dr Ling Chen Hoe.

