Journal of Quality Measurement and Analysis *JQMA* 7(2) 2011, 97-107
Jurnal Pengukuran Kualiti dan Analisis

PENDEKATAN PENYELIDIKAN OPERASI DALAM PENGURUSAN SUMBER KEDAI KOMPUTER

(Operational Research Approaches in a Computer Shop's Resource Management)

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ABSTRAK

Keberkesanan dan kepentingan kaedah Penyelidikan Operasi dalam pengurusan sesebuah organisasi telah lama diperakui, baik oleh para akademik mahu pun bukan akademik. Di antaranya adalah untuk melicinkan operasi harian dan membantu meminimumkan jumlah kos inventori. Kajian ini mencadangkan penyelesaian masalah inventori dan pengagihan tugasan kepada pekerja sebuah kedai komputer, Command Com Technology (M) Sdn. Bhd. Kaedah Penyelidikan Operasi pertama yang digunakan adalah Model Kuantiti Pesanan Ekonomik untuk menentukan bilangan pesanan optimum pemacu kilat USB (Kingston, 4GB) dan masa yang sesuai untuk membuat tempahan supaya kedai komputer ini dapat meminimumkan jumlah kos inventori pemacu kilat tersebut. Kaedah kedua ialah Kaedah Hungarian, digunakan untuk membantu pemilik kedai mengagihkan kerja kepada kakitangannya dengan tujuan meminimumkan jumlah masa menyelesaikan kerja mereka sebelum operasi kedai bermula setiap hari. Selain daripada dua kaedah tersebut, empat kriterium analisis keputusan turut digunakan untuk membantu menentukan sama ada pemilik kedai tersebut memerlukan pekerja baru, dengan harapan untuk memaksimumkan jumlah hasil jualan.

Kata kunci: Penyelidikan operasi; model kuantiti pesanan ekonomik; kaedah Hungarian; analisis keputusan

ABSTRACT

Operational Research methods have long been acknowledged and accepted by both academics and non-academics as effective and important methods in the management of an organisation. Some of the methods can help an organisation to ensure smooth daily operations and to minimise its total inventory cost. This study proposes a solution to an inventory problem and job assignments among the staff of a computer shop, Command Com Technology (M) Sdn. Bhd. The first Operational Research technique used is the Economic Order Quantity Model to determine the optimum number of pen-drives (Kingston, 4GB) in every order and the suitable time to order a new batch of the pen-drives with the objective of the computer shop minimising the total inventory cost of the pen-drives. Secondly, the Hungarian Method was applied to help the owner of Command Com Technology (M) Sdn. Bhd. To distribute work or tasks among its staff so that they are able to complete the tasks in the shortest time before the shop opens. In addition to the two Operational Research methods, four criteria under Decision Analysis were also used to assist the owner in deciding whether to hire new staff with the hope to maximise its total sales.

Keywords: Operational research; economic order quantity model; Hungarian method; decision analysis

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