

# ENTREPRENEURIAL LOGISTICS

## VOLUME TWO

### APPLIED ENTREPRENEURIAL LOGISTICS



ENTREPRENEURIAL  
LOGISTICS

Sapto J. Poerwowidagdo & Anton Adibroto

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**VOLUME TWO**

**APPLIED ENTREPRENEURIAL LOGISTICS**

Cover Design:

Dr. Sapto J. Poerwowidagdo

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ISBN 978-967-5782-10-7

Diterbitkan oleh:

**Universiti Malaysia Kelantan**

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16100 pengkalan Chepa, Kelantan.

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## Foreword

It has been a pleasure to me to write a few words to commemorate the publication of two volumes of book entitled Entrepreneurial Logistics. Certainly the publication of the book signifies our commitment to contribute to the building of new knowledge particularly in the new area of entrepreneurial logistics. I think the publication will be able to disseminate the knowledge to students and the general public towards the importance of logistical aspects in the entire value chain of any particular industry.

Logistics as an industry is currently growing at a very rapid pace. In cognizance logistics been identified as one of the national key economic area (NKEA) coupled with the rapid development of the industry, University Malaysia Kelantan thru the Faculty of Entrepreneurship and Business is taking a proactive effort to introduce a new program of study at the undergraduate level i.e. Bachelor of Entrepreneurship (Logistics and Distributive Trades) with honors. The new program will commence its first intake in September 2011. One of the thrust of the program is for students to learn Entrepreneurial Logistics where the books can used as texts or references.

I would like to take this opportunity to congratulate both of the editors for their relentless effort to compile and making the publication a success. I sincerely hope more and more publications of this nature will spur out the faculty as references to the subject matter are very much limited. Entrepreneurial logistics is a new concept, thus the contents of the publication will be able to raise public awareness about the amplexness and exciting opportunity this particular industry can offer.

Sincerely, I hope everyone will get the utmost benefit after reading the books.

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22 June 2011

## Learning Objectives

- To explain the steps of new product development
- To understand and know how to develop new product in logistics
- To understand and be able to describe the entrepreneurial logistics process

Rapid changes in technology, the emergence of global industrial and consumer markets, increasing market fragmentation and product differentiation, and the increasing options for developing and producing products have increased the pressure on all firms to more effectively and efficiently develop new products. In many progressive firms, the design of new products is conducted by a team representing a number of functional areas. The development of new products by such cross-functional teams and the use of concurrent engineering have the potential of significantly improving three key objectives: time to market, improved quality, and reduced total cost. By involving entrepreneurial logistics and suppliers in simultaneous (cross functional) engineering process teams at an early stage, R&D gets the chance to increase efficiency. In fact, early entrepreneurial logistics involvement helps to shorten engineering time and increase engineering quality.

The global marketplace and global competition coupled with advanced communication systems, computers, and sophisticated software have generated an environment in which 'time to market' and first to market have significant competitive advantages. Clearly, the need to reduce development time has forced companies to look

for new methods to compete. The use of entrepreneurs and suppliers earlier in the product development cycle is a key means to reducing time to market.

## The Design Process

Design is the progression of an abstract notion or idea to something having function and fixed form. Suppliers must have access to product design as early as humanly possible in the design process to assure optimal use of any special skills or processes they can contribute. The design stage is also the optimum point at which the vast majority of the cost of making an item can be reduced or controlled. If costs are not minimized during the design stage, excessive cost may be built in permanently, resulting in expensive, possibly noncompetitive, products that fail to fully realize their profit potential. The new product development process is a series of interdependent and frequently overlapping activities which transform an idea into a prototype and on to a marketable product.

Successful supplier integration initiatives result in a major change to the new product development process. Further, the new process must be formally adapted by multiple functions within the organization to be successful. One of the most important activities in the new development process is understanding the focal supplier's capabilities and design expertise, conducting a technology risk assessment, weighing the risks against the probability of success.

## The Investigation or Concept Formation Phase

## Defining the New Product

The design and development process begins with the investigation phase. First, the product is defined. Companies need to incorporate the customer into product design. That means getting more and more members of an organization in contact with the customer—manufacturing and design people, as well as sales