

Preface

1 Origins

This book is a natural outgrowth of my consulting work in Malaysia where I re-engineered a number of US, European and Asian companies. Some of these companies were multi-billion dollar businesses. In the course of that work I found that many accepted re-engineering methods were inadequate. Success seemed to depend strongly on the caliber and experience of the consultants involved. This suggested intrinsic weaknesses or limitations in the methods themselves.

2 Objectives

My objective in writing this book, therefore, was to help improve the methods used in the re-engineering of business. I wanted to document and share many of the concepts and tools I had developed for investigating businesses and for proposing and implementing designs for re-engineering businesses. Having worked for and had contact with multinational and international companies, including Texas Instruments, Unilever, Colgate-Palmolive, Kimberly Clark, Coopers & Lybrand, KPMG and Petroliaam Nasional Malaysia Bhd. (Petronas), I know that many of these concepts and tools for business re-engineering are not currently used in the manner discussed in this book.

3 Background

My research into how and why factories work started in the late 1980's in Texas Instruments (TI). Pitted against two extremely competent teams, I began to consolidate and re-evaluate this research. I developed TI's next generation of planning systems, Daily Factory Starts (DFS), for its Assembly/Test sites. The DFS development was one of the top ranked projects for TI in 1991.

I select specific thought provoking problems found in multinational businesses. As these are first hand observations, I am able to iterate, through the issues at stake, until the manufacturing problem is clearly defined in a generic manner that lends itself to generic solutions. This makes business solutions transferable across industries. Many of these ideas are recast within an Operations Research (OR) framework. This led to new concepts and a new approach to business strategy.

For example, at the time, 1987-1992, I had shown that both push and pull systems were equivalent. That is, it is not possible to gain a competitive advantage over any other industry player by switching to a pull system of managing work in progress

(wip) within a factory. Yes, pull and push are equivalent. The real issue is planning complexity. This concept is derived from a class of OR search techniques known as mathematical programming discussed in chapter 6, *Push versus Pull Systems*.

4 Expected Benefits

In writing this book, I've taken a high level, big picture perspective, for senior managers, and then come down to the details pertaining to the relevant issues, for junior managers. I do hope that the book will enable practical managers to quickly straighten out their operations as they can now see that the real issues are related to operations and business design and not to uncooperative functional departments.

For example, if forecast market demands are used to determine production schedules, it will create an environment of hostility as marketing, sales, planning and production will not be able to satisfy changes in market demand. Forecasting, by its nature, guarantees that changes in market demand, is always unexpected. Unfortunately, the need for management accountability ensures that the politically 'weakest' department will take the blame for stock-outs and excess production.

Further, the new approach to business strategy, the Holistic Business Model, allows one to clearly see the competitive forces facing one's business; and those forces affecting one's competitors. The upshot of this is that, not only do you know your own best strategy, but that of your competitors. The Game of Business is going to be a very interesting one, where all players know each other moves!

Wherever possible, I cut through the 'bull' and provide working answers to management questions about how an issue should be approached and what are the real solutions to their problems. God bless.

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