

THE EFFECT OF PRODUCT DEVELOPMENT AND
COMMERCIALIZATION ON COMPETITIVE ADVANTAGE

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Thesis submitted in fulfillment of the requirements for the award of
the degree of Bachelor of Industrial Technology Management with
Honors

Faculty of Industrial Technology Management
UNIVERSITI MALAYSIA PAHANG

JUNE 2016

SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project report and in my opinion this report is satisfactory in terms of scope and quality for the award of the degree of Bachelor of Industrial Technology Management with Honors.

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STUDENT'S DECLARATION

I hereby declare that the work in this report is my own except for the quotations and summaries which have been duly acknowledged. The report has not been accepted for any degree and is not concurrently submitted for award of other degree.

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LIST OF ABBREVIATIONS

SCM	Supply Chain Management
GSCF	Global Supply Chain Forum
PDAC	Product development and commercialization
SPDC	Strategic Product Development and Commercialization
OPDC	Operational Product Development and Commercialization
CA	Competitive Advantage
KFC	Kentucky Fried Chicken
NPD	New Product Development
SPSS	Statistical Package for the Social Science
Q-Q	Quartile to Quartile

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ABSTRACT

The aim of this research is to examine and identify the effect of product development and commercialization (both strategic and operational sub processes) on competitive advantage. Strategic product development and commercialization, and, operational product development and commercialization is set as the independent variables. Meanwhile, organization's competitive advantage is classified as the dependent variable. One hundred sixty two respondents from Kentucky Fried Chicken (KFC) Malaysia Holding were surveyed by questionnaire. The collected data is analysed by using reliability tests, normality tests, descriptive statistics, correlation analysis and regression analysis. Results show that there is significant positive effects of product development and commercialization (both strategic and operational sub processes) on KFC's competitive advantage.

ABSTRAK

Tujuan kajian ini adalah untuk mengkaji dan mengenal pasti kesan pembangunan produk dan pengkomersialan (kedua-dua sub proses strategik dan operasi) pada kelebihan daya saing. Pembangunan strategik dan pengkomersialan produk, dan, pembangunan produk operasi dan pengkomersialan ditetapkan sebagai pembolehubah bebas. Sementara itu, kelebihan daya saing organisasi diklasifikasikan sebagai pembolehubah bersandar. Satu ratus enam puluh dua responden dari Kentucky Fried Chicken (KFC) Malaysia Holding telah dikaji selidik oleh soal selidik. Data yang diperolehi dianalisis dengan menggunakan ujian kebolehpercayaan, ujian normal, statistik deskriptif, analisis korelasi dan analisis regresi. Hasil kajian menunjukkan bahawa terdapat kesan-kesan positif yang signifikan pembangunan produk dan pengkomersialan (kedua-dua sub proses strategik dan operasi) pada kelebihan daya saing KFC.

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The product development and commercialization process requires effective planning and implementation throughout the supply chain, and if managed properly can provide a sustainable competitive advantage. Long-term success in today's business largely depends on the ability of a firm to develop and move their products in a faster, efficient manner compare to their competitor (Cooper & Kleinschmidt, 1987). Although the ability to successfully create new product is multidisciplinary in nature (Olson, 2001), the main requirement for product development and commercialization is to integrates both customers (Karkkainen & Piippo, 2001) and suppliers (Schilling & Hill, 1998) into the process so that they can shorten product/service's time to market (Rogers, 2004). According to Droge et al. (2000): "The ability to reduce time to market is the key of a firm's success in term of innovation and profitability as well as playing a critical roles in the process objective." In other word, the ability to successfully developed and moved the "right" products must involves the effort to combine the perspective of a customer and supplier into the product development and commercialization in order to maintain firm's competitiveness within their competition and determine firm's positions in the future marketplace.

Hence, it is clear that product development and commercialization process requires the integration of customers and suppliers, and, the alignment of their activities into the entire supply chain. As product development and commercialization is only one of the eight supply chain management processes, which also indicates the need for the process to interact with the other seven supply chain processes. As stated by The Global Supply Chain Forum (2009), an overview of the study which comprises of all supply chain management processes is provided in the next section. For study purposes, Kentucky Fried Chicken (KFC) Malaysia Holding is picked as the source of information to demonstrate the effect of product development and commercialization (both strategic and operational sub processes) on organization's competitive advantage.

1.2 BACKGROUND OF STUDY

In order to allow for the integration of key business process across the supply chain in today's business world, an effective supply chain management is becoming increasingly important. Another words to put it, efficiency and effectiveness in current business environment is driven through the linkage and integration of all supply chain processes. Supply chain management developed and used by the Global Supply Chain Forum (GSCF) (Lambert et al., 1998) stated that: "[The] supply chain management is the integration of key business processes from end user through original suppliers that products, services, and information that add value for customers and other stakeholder." (Croxtton et al., 2001). Eight supply chain processes that need to be implemented within and across business firms to yield an effective supply chain management is shown in Figure 1.1.

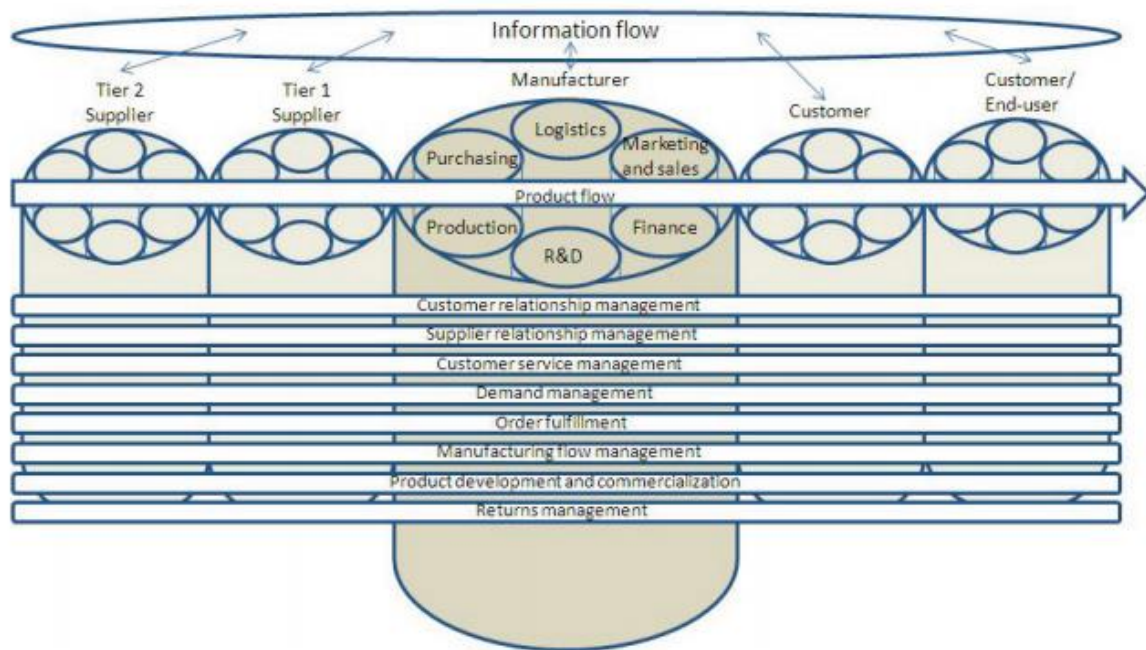


Figure 1.1: Eight Supply Chain Management Processes

Source: Lambert (2008)

- **Customer relationship management** – establish practices, strategies and technologies that companies use to manage, record and evaluate customer interactions in order to drive sales growth by deepening and enriching relationships with their customer bases.
- **Supplier relationship management** – construct the structure to manage supplier base within a firm, which to be more precise, involves the effort of the executing firm and their suppliers in establishing product / service agreements.
- **Customer service management**- management of company's interaction with their clients, which include the establishments of product / service agreements, and, gives important information to customer in regard to their products or services.