Different Perspectives Between Product and Marketing Division towards Product Critical Success Factors and Its Strategic Importance in Telecommunication Sectors

Rachmi Rida Utami and Reza Ashari Nasution***

Todays situations force telecomunication company to continuously evaluate, select and prioritize its product portfolio in order to determine the strategically important products. An analysis of critical success factors that determine product's strategic importance acts as a good introduction to review and manage the product portfolio as well as to seek ways to develop the product. To achieve this, the company is required to have good alliances and collaborations between departments, develop a clear focus and seek innovative ways of doing business, particularly between marketing and product divisions. This study analyzed the alignment between product and marketing divisions of a telecommunication company in Indonesia, in determining the company's strategic products. The results indicated that both divisions agreed on using financial performance and revenue as the most important criteria and sub-criteria for identifying strategic product. However, the divisions also faced some different visions in selecting alternative criteria. The Product divisions were more focused on technical spesification of product, while the Marketing division were more oriented on customer and market conditions. The study reported the consequences of these difference in practice.

Keywords: Product strategic importance, Critical success factors, Telecommunication, Inter department collaborations, Product portfolio management

Situasi dewasa ini memaksa perusahaan telekomunikasi untuk terus mengevaluasi , memilih dan memprioritaskan portofolio produkya dalam menentukan produk yang penting secara strategis. Analisis faktor penentu keberhasilan yang menentukan kepentingan strategis produk merupakan awal yang baik untuk meninjau dan mengelola portofolio produk serta mencari cara untuk mengembangkan produk. Untuk mencapai hal ini, perusahaan dituntut untuk memiliki aliansi dan kolaborasi yang baik antar departemen dalam perusahaan, mengembangkan fokus yang jelas dan mencari cara-cara inovatif dalam menjalankan bisnis , terutama antara divisi pemasaran dan divisi produk . Penelitian ini menganalisis keselarasan antara divisi produk dan pemasaran dari sebuah perusahaan telekomunikasi di Indonesia dalam menentukan produk strategis perusahaan. Hasil penelitian menunjukkan bahwa kedua divisi setuju untuk menggunakan kinerja keuangan dan pendapatan sebagai kriteria dan sub kriteria yang paling penting untuk mengidentifikasi produk strategis . Namun, kedua divisi ini juga menghadapi beberapa visi yang berbeda dalam memilih kriteria alternatif . Divisi Produk lebih terfokus pada spesifikasi teknis produk , sementara divisi Pemasaran lebih berorientasi pada kondisi pelanggan dan pasar . Penelitian ini melaporkan konsekuensi perbedaan fokus kedua divisi ini pada praktek bisnis perusahaan.

Kata Kunci: kepentingan strategis produk. faktor penentu keberhasilan, telekomunikasi, kolaborasi antar departemen, manajemen portfolio produk

Introduction

The competition in the telecommunication industry has been intense. The competing players entered the market place from all

Master of Business Administration Program-School of Business and Management, Institut Teknologi Bandung; Jl. Gelap Nyawang No.1 Bandung - 40132, West Java
* E-mail: rachmi.rida@sbm-itb.ac.id
** E-mail: reza@sbm-itb.ac.id

sides (Dolbeck, 2006). The telecommunication companies had to compete with each other to satisfy the customer needs and wants. Pursuing this, the company's products need to be seen as more than physical entities. Since the products that the company had in their portfolios made different contributions to profits, company had to continually evaluate, select and prioritize its product, from time to time to win customer preference (Cauchik Miguel, 2008).

An analysis of the critical success factors related to the product strategic importance need to be undertaken by the company in order to review and manage the product portfolio as well as to seek ways to develop the products. In order to achieve it, the company is required to have good alliances and collaborations among departments to develop a clear focus, share information as well as to seek innovative ways of doing business (Gunasekaran, Tirtiroglu and Wolstencroft, 2002).

A number of research that examined how functional departments interact with one another and how the conditions of different perspectives and focus could influence the company business strategy have been discussed by many academics (Ruekert and Wlaker Jr, 1987; Gunasekaran, Tirtiroglu and Wolstencroft, 2002; Chen and Lu, 2006). Many of them have attempted at identifying gap between functional departments while others also offered solutions to reduce it. Despite these studies, the theories described about the critical success factors have been widely discussed and received extensive discussions in many product developments or new product development. Both topics were thought to be essential for competitiveness in many industries as well as useful in making an optimal marketing strategy. However, there was rarely any particular study that could coorelate the conditions of different perspective with the critical success factors behind product strategic importance.

Basically, the earlier research studying interactions between departments were more focused on relationships between marketing and R&D departments. Unfortunately, there were rarely any specific study that could describe the interactions between marketing and product divisions, especially in telecommunication sectors. Thus, the particular study must be addressed to develop insights and illustrate the differences between these two divisions. This study aims to contribute towards filling this gap, by studying the relevant literatures and interviewing practitioners in telecommunication sectors in Indonesia. The result should be beneficial for marketing strategy formulation in telecommunication company while also improving both departments and products contribution towards the company's strategic goals.

Literature Review

Product Portfolio Management

The products owned by a company are essentially important for the long-term survival of the company. In the presence of the products, the company is expected to achieve its objectives, one of which was revenue coming from selling the products. As the development of time, the market conditions becomes demanding and pushing companies to be more serious in developing and managing their products in order to maintain their positions with variety of customers needs (McClure, 2003). Thereby, the company's choice to develop product portfolio management becomes a central factor that could influence the company's opportunity in success.

Product portfolio management is a significant determinant of company profitability and has been widely recognized as a key component of company strategy (Balasubramaniam, 2007). It was a process in which the development of products were continually evaluated, selected and prioritized; new products might be introduced and existing products might be suspended, canceled, or de-prioritized (Balasubramaniam, 2007; Cauchik Miguel, 2008; Cooper Edgett and Kleinschmidt, 1997). Some researchers also notioned that product portfolio management was about allocating resources, deciding which products should received top priority and be accelerated to the market (Cooper, Edgett and Kleinschmidt, 1997).

Product portfolio management helps the company to optimize its business strategy, by providing a mechanism for continuous project assessment. A mechanism in product portfolio management requires the general approaches,

such as providing data and information related to the products, which is then further categorized and analyzed through a scoring system based on certain criteria (for example: strategic impact, sales data, technology difficulty, forecast data, etc.). Product portfolio management helps the company to choose the proper products and ensures them to get the proper treatment, despite shared resources (Cauchik Miguel, 2008; Gould, 2009).

A research by Killen, Hunt and Kleinschmidt (2008) indicated that product portfolio management was a key factor for product success. The research reported that the products introduced within the last three years had generated about a quarter of total revenue and profit, and about 59% of new product launched were successful. These results indicates that product portfolio management correlated with product success rates. These results also being confirmed in other research, which showed that 50% of a company's sales were coming from the launched products within the first five years (Cauchik Miguel, 2008; Killen, Hunt and Kleinschmidt, 2008).

The examples showed that, if the product portfolio management is well managed by the companies, it could give many benefits to them. Otherwise, if the product portfolio management was poorly managed, it could cause certain problems. For instance, the availability or resources become limited, whereas many products needed to be developed; the products being developed did not align with the business strategy, causing many products being cut from the business's priorities; wrong products were often not discontinued, etc. Circumstances such as these needs to be avoided by the company.

However, there are challenges in developing and managing the company's product portfolio. For instance, it was challenging in creating the optimal product portfolio, while also creating the business synergies. It usually also takes time to evaluate the entire product of a company. Selecting which product that could be deleted or selected has never been an easy task. There is no easy solution to manage product portfolio of a company. It requires careful and thorough plan to make an effective product portfolio (McSparran, 1995). An effective product portfolio should consists of valuable products, which have enough distinction to sustain and grow values over time (Rao, 2009).

The actions already been taken by some global telecommunications companies, for example Vodafone. The company recently executed a program to divest the minority assets in order to focus in better assets that deployed its capabilities. The telecommunication companies used these assessment to evaluate their product portfolio in order to identify what products needed to be deleted and highlight products that needed specific improvement strategies (McSparran, 1995; Sabbagh, et al., 2012).

Conclusively, the main goal of product portfolio management are generally to maximize the financial value of the product portfolio, to ensure balance among projects, to limit the number of product so could fit with the organizational capacity and to ensure that the portfolio reflected the business's strategy. Attempt at improving the product portfolio management also have yielded positive effect on improving product quality (Cooper, Edget and Kleinschmidt, 1997).

Product Portfolio Management from the Perspective of Product Development

The efforts in identifying critical success factors of products have been widely discussed by many researchers and could easily be found in the realm of product development or new product development. The link between portfolio management and product development or new product development started when the innovative ideas went into development. It could become a beneficial product or perhaps it might need to wait for available resources in order to be developed. These innovative ideas requires technical development before becoming a products. After these ideas became products, they would be developed and managed simultaneously. Hence, they needed to be balanced and prioritized by comparing and ranking them to one another based on certain criteria. Eventually, resources were allocated to the selected products (Cauchik Miguel, 2008).

These continuous relationships connect product portfolio management and product development. Thereby, product development could help the company to clearly define its

ideas which would be applied to the products through preliminary investigations, such as market potential, technical specifications or other certain criteria. Throughout this study, the formation of critical success factors would be created by borrowing the product development's approach.

The General Critical Success Factors of Products

The research study performed by Chris Storey, which focused on more than 100 new products in variety of industries, confirmed that 50% of them achieved positive results while others faced downfalls (Cooper and Edgett, 1996). Additionally, many observers also reported that the new product downturn rate was between 70-80 percents (Suwannaporn and Speece, 2010).

Academics who study the product development have identified several key elements for product success. They represented the better process for identifying good product concepts and guided them through the product success (Pitta, 2008). A study conducted in 100 new products and at 174 "top performers" products showed 65 and 14 different key performance drivers. These study then combined with other findings from the study focused on the factors that distinguished the winning and losing products. The result showed that there were 10 crucial success factors that determine a product's success (Edgett, 1996), some of them were:

1. Focus on availability of resources
2. Focus on the excellence quality of execution within new product process
3. Integrating the consumer's words
4. A high-quality launch effort
5. Synergies
6. Distinctive and exceptional products
7. Possess product-market match

Cooper (1999) reported a set of factors that called seven actionable critical factors that applied on product innovation, some of them were:

1. Influence of the customers: devotion to the market and customer's inputs towards the product
2. Product advantage: distinctive and exceptional value for customers
3. A well-planned, adequately-resourced and proficiently-executed launch

A research study by Linton (2004) who studied 161 business units, also discovered the important factors of new product developments. Ten key performances were:

1. Rate of success
2. Sales percentage of new products
3. Profitability compared with spending
4. Technical success rating (the technological point of view)
5. Sales product impact
6. Profit product impact
7. Achieve the product sales goal
8. Achieve the profit goals
9. Profitability compared to competitors
10. The general success

Based on the many critical factors above, further, it could be classified into three major factors that indicated the product success as shown in table 1.

Though it was already classified into the three major factors that indicated the product success, these findings were not specifically applicable to telecommunication sectors. These findings were measured only from industries in general. Further, the study would analyze more about the critical success factors in telecommunication sectors.

The Critical Success Factors of Products in Telecommunication Sectors

Process development and time-to-market aspects are important measurement of success for telecomunication sectors (Munoz, 2008; Kosaroglu and Hunt, 2009). Time to deploy the product within strict time was crucial factor in a telecommunication business. Because of the increasing competitive market, ideas spread rapidly and the imitation or adaptation of telecommunication products have become universally adopted strategy. Moreover, achieving rapid time to market could enable the company to achieve an advantage in market share. Time to market usually defined as the time used to

Table 1. General Classification of the Three Major Factors that Indicate the Product Success

Future Development Process	- Adequate resources: people, technology, materials - Adequate budget/funding - Clearly defined product strategy: managing product definition, product goals and product focus - High quality time-to-market
Product Advantage	- Unique products - Provide superior value for customers - Customization - Matches or exceeds the needs of customers - Service expertise: delivery quality, expertise of a personnel
Product Performance	- Revenue generated from the product - Meeting profit goals - Sales numbers/rate - Meeting sales objectives - Profitability relative to spending - Product market share

initiate the concept of a product to complete the product launch phase (Ogawa and Ketner, 1997). The company that reduced the cycle development time in its process much likely would perform well in the market, as it could deliver the product earlier than the competitors (Munoz, 2008; Shiu and Cheng, 2008; Ogawa and Ketner, 1997).

First pace to market is highly correlated with factors like internal and external coordination. The internal coordination is defined as preliminary setting objectives. The coordination between different functional department is required in order to meet those objectives (Shiu and Cheng, 2008). The external coordination was defined as engaging information power from supplier, advertising agencies, outsourcing companies, etc.

Technology is considered as one of the most influential factor in telecommunication product development. The integration between development process and technology is dominant to provide an excellent product to customers (Kosaroglu and Hunt, 2009). In order to get the optimal design of the product, the company needs to apply the right technology into it. The telecommunication product must also fit into customer requirements as well as offering the excellent benefits compared to the other existing telecommunication products. It took big concerns in telecommunication sectors, as telecommunication companies also faced the rapid technological development and fast changes in customer requirements (Munoz, 2008).

Innovation is still regarded as the key success factor in telecommunication sectors. Innovation has been proven to be important for long-term success of mobile companies that operate in a highly competitive and uncertain environment. The innovation could be something related to tariffs, promotions, discounts, networks, etc.

Telecommunication products often vary in quality that depends on the standardization of each product. Hence, product augmentation is also crucial for telecommunication sector, since the same basic product attributes could be offered to separate customer segments in different ways and at different prices.

All telecommunication products demand very close relations between suppliers and customers. The interaction could also become differentiation in product offerings. In addition, telecommunication companies also need to develop the appropriate processes and procedures to interact with their customers (Munoz, 2008).

The telecommunication product's success could be measured through its sales performance that shows the unit sales or registered subscribers of a certain product. It includes elements such as market share of the product, rate of user, profitability as well as churn rate (Munoz, 2008). All these elements are then categorized into few major categories representing each factors as show in table 2.

Different Perspective Between Marketing and Product Division

Interfunctional relationships are important during developing and managing product. Product management and development require the company to provide or exchange resources such as information, skills and budget, which could be established by building good relationships among existing divisions. Some studies

Table 2. The Telecommunication Sector's Major Factors that Indicated Product Success

Categories	Factors	Descriptions
Future Development Process	• Internal coordination • External coordination • Technology • Innovation • Time to market	• Preliminary setting objectives • Excellence integration between external parties (supplier, advertising agencies, outsourcing, etc.) • Right technology selection, easy and applicable technology, integrated well with the process • Innovation in tariffs, promotions, discounts, networks, etc. • The time used to initiate the concept of a product to complete the product launch phase; Reduce the cycle development time in its process
Competitive Performance	• Superior product experience to customers • Superior to competitors • Product augmentation • Positive image to the companies	• Related to the level of satisfaction that customer experiments when use it • Reflected the product advantage against the competitors • Products offered in different ways and at different price to certain customer segments • Related to the positive image, top of mind that the customer and the market have from the company
Sales Performance	• Market Share • Rate per user • Profitability • Churn rate	• Reflected the percentage of customers that the company owns in a national market where it operates • The average rate per user • Reflected the differences between revenues and the amount spend on them • Reflected the number of subscriber that are disconnected from the products during a month of period
After-Launch Effort	• Marketing activities • Customer relationships	• Carefully arranged and very detailed marketing activities • Very close interaction between the company and the customers, better attention to customer requirements

described that inter functional relationships during product management and development often became a challenge for the company, without exception was the relationships between marketing and product division. In some companies, the relationships between these two divisions were usually characterized by perspective differentiations (Massey and Kyriazis, 2007).

Gunasekaran (2002) studied the gap between marketing and production division related to the method used by the two divisions. The perspective differentiations between both divisions usually occured in not only design and delivery flexibilty but also design and delivery reliability (Gunasekaran, Tirtiroglu and Wolstencroft, 2002). A study conducted by Friend and Thompson (2003) described that syncronizing the two divisions was never an easy task. It was evidenced by marketing strategy and production plans that were optimized separately. Marketing division were usually focused on customer needs by identifying and delivering the customer preferences. While product division were usually focused on technical feasibility and effectiveness (Ruekert and Wlaker Jr, 1987).

The study conducted by Ruekert and Wlaker Jr (1987) described that the issues between product and marketing divisions often absorbed large amounts of company's resources and sometimes lead to individual department decisions, which disregard the company's objectives. The issues between division were also associated with the higher rate of product failure, because of their different perspective related to the product. For example, the level of product performance developed by product division usually contradicted with the desire of marketing division (Ruekert and Wlaker Jr, 1987). However, these issues needed to be resolved eventually.

Several propositions concerning these problems have been made to reduce the issues. Some authors have explained the need of communication and cooperation between production and marketing divisions for the company. They believed that communication and cooperation could directly influence the inter functional relationships effectiveness. It is also evidenced that by developing a good interfunctional relationships, the success rate of product became higher and increased profits (Massey and Kyriazis, 2007; Leitch, 1974). Eventually, the production must synergize their focus and activities with marketing division and vice versa (Friend and Thompson, 2003).

Research Methodology

The study focused on one of the Indonesia's biggest telecommunication company with a complete range of products. This study applied grounded theory (GT) approach in identify-

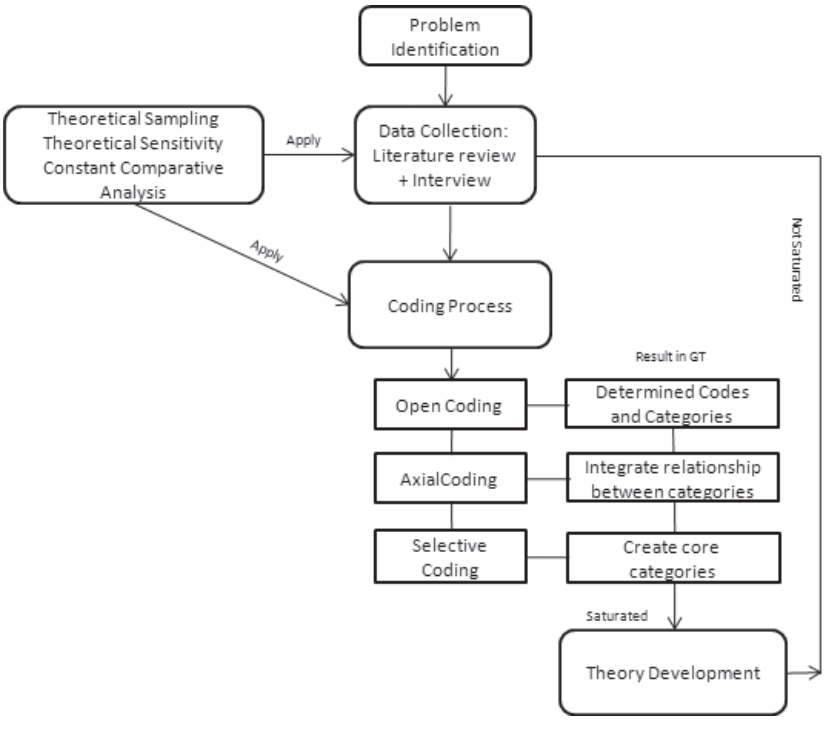

Figure 1. The Process of GT Method

ing the critical success factors of products in telecommunication sector, for it allows more general explanation of a phenomenon based on data generated from data collection process. The data were obtained through studying relevant literatures and expert interviews as well as AHP (Analytical Hierarchy Process) model to select the critical success factors that determine the product strategic importance in telecommunication sectors. The experts who participated in both individual interview and AHP decision process were selected from two divisions of the company, namely product division and marketing division. A total of three experts from each division with minimum five years of experience in telecommunication sectors, were included in this study. Prior to the interview, both groups of experts were provided with general descriptions of the study, including the research objective as well as the process, methods or tools of data collection.

Grounded Theory (GT) Method

Grounded Theory (GT) was a method developed by Glaser and Strauss (1967), that used a systematic set of procedures in order to inductively develop a theory about a phenomenon (Halaweh, 2012). GT method was considered as a general method to develop a theory which was grounded in data that was systemically gathered and analyzed (Mansourian, 2006). It was regarded as a package of research methods, which included several key points as data collection, theoretical sensitivity, theoretical sampling, constant comparative, coding, identifying core category and theory writing (Zarif, 2012; Mansourian, 2006; Mills, Bonner and Francis, 2006; Halaweh, 2012)

GT process in this study began by identifying the problem which was to determine product strategic importance in telecommunication sectors through finding the critical success factors of products. The data were collected from literature reviews and expert interviews from the telecommunication sectors. A total of 25 interview questions were conducted with experts from both divisions. Further, the expert's answers were analyzed through coding the data, that could represent an action, object, process or concept. These codes were then compared with the codes established from the paper literatures and this process were continuously refined by adding or eliminating codes from both data sources. Further, the identified codes were classified by grouping the codes with same meaning into one category. The name of category should represent the codes inside it. The formed categories from GT were then used to select the core categories using AHP model,

Table 3. List of Categories

No.	Name of Categories	Codes
1	Financial Performances	- Revenue - Operational Cost - Profit - Sales quantity
2	Customer's Indicators Level	- Level of Churn Rate - Level of Customer's Satisfaction - Level of Customer's Loyalty - Level of Customer's Complains
3	Product Performance	- Product Design - Product Quality - Comfortably Used by Users - Easy to Sell
4	Future Development Process	- Technology - External Collaborations (Mitra) - Time to Market - Infrastructure - Resource Allocations - Innovations
5	After Launch Efforts	- Product's STP - Product Coverage - Marketing Promotions - Superior Service Quality - Continuous Improvement
6	Competitive Performance	- Price/Tariff - Company Image - Customers Solution - Product Offerings (Augmentation) - Value Delivery of a Product

that ranked the categories through its important level. Eventually, the final level was to concept and develop the theory. Theory emerged by integrating the relevant concepts of data (Byrne, 2001).

The data collection and data analysis were simultaneously processed throughout the study. At the same time, theoretical sensitivity, theoretical sampling and constant comparison analysis were conducted to group similar together. The process of gathering and comparing the data continued until they became saturated, which means that no further ideas were mentioned. The process of GT method used in this study is shown in figure 1.

The AHP Model

AHP was proposed by Thomas L. Saaty and was one of the most commonly applied multicriteria decision making methods (Rezaei and Karami, 2008). The AHP model was used based on the existing categories. The use of AHP model required determining the relative importance of each elements in the hierarchy. It also required the expert's point of view to determine how they perceived the importance of these critical factors of a product. AHP model decomposed a complex decision operation into a multi-level hierarchical structure. AHP usually consists of three major steps: decomposition, comparative judgment and synthesis of priorities (Mogadham and Karami, 2008; Saaty, 1990), which also used throughout this study.

- The Hierarchy Structure
  The AHP begins by defining the problem and constructing it into a hierarchical network. The top layer represents the overall goal, which defines the problem to be solved; the middle represented the criteria (factors) and sub-criteria (sub-factors), while the bottom represent the alternatives.
- The Pairwise Comparison
  This step is used to create priorities among elements within each level of the hierarchy. The priorities among elements were evaluated by asking the expert participants to compare pairwise each set of the elements with respect to each of the elements in a higher level. There were two stages of doing the pairwise comparison in this study: (1) Comparison among criteria with respect to the overall objective and (2) Comparison among sub-criteria with respect to the criteria. Their judgment of the importance factors over another could be made subjectively and

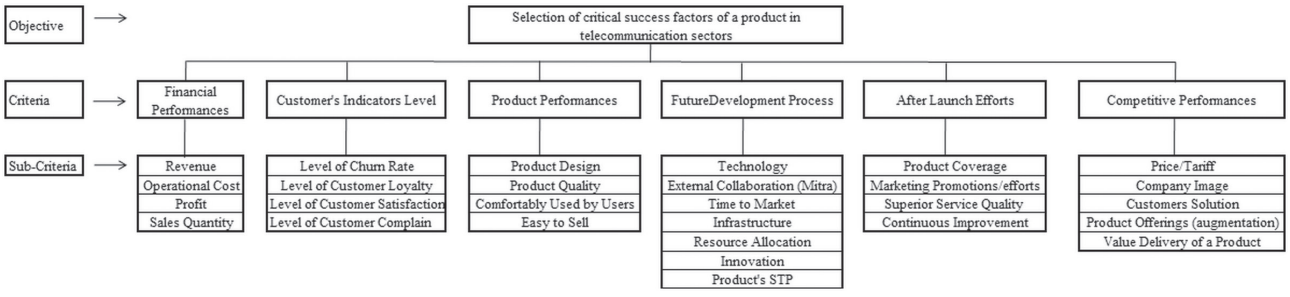

Figure 2. The AHP Structure

Table 4. Synthesized Priorities and Ranks For Criteria

Criteria	Product Division	Marketing Division
Financial Performance	**0.281 (1)**	**0.283 (1)**
Customers Indicator Level	**0.261 (2)**	**0.276 (2)**
Product Performance	0.163 (3)	0.162 (3)
Future Development Process	0.082 (5)	0.122 (4)
After Launch Effort	0.052 (6)	0.066 (6)
Competitive Performance	0.161 (4)	0.091 (5)
C.R	0.030	0.020

later converted to a numerical value using a scale 1-9 (Mogadham and Karami, 2008). Further, the data from participants were being input to *Expert Choice*. The software directly calculated the relative weights for each elements in every level with respect to the higher level.

- Synthesis of Priorities
  This step included establishing priorities and consistency data of respondents. Calculated priorities was used to compare the relative importance of the elements in each level to an element in the higher level. In AHP, the consistency ratio should be less than 0.1 (Saaty, 1990).

The AHP results presented in the next section showed the priorities of both criteria and sub-criteria from product and marketing divisions. Further, these priorities were compared against one division to another, so as to indicate what points that differentiate them. Eventually, the differentiations were translated into insights represented both divisions characteristics.

Results and discussions

GT's Results-List of Categories

Based on insights obtained from both the literature review and the interview data, the results of categories of critical success factors were developed. The categories resulted from this process were depicted in Table 3.

AHP Results

The categories formed from GT were then used to select the core categories using AHP model, which ranked the categories based on its importance level.

1. *The Hierarchy Structure*
   The structure of AHP was constructed based on findings from GT method as shown in Table 3 above. The structure consists of three layers or level represented: the overall goal in the top layer, the criteria (categories) in the second layer and the sub-criteria (sub-categories) in the third layer.

2. *Pairwise Comparison*

   2.1. *Comparison Among Criteria with Respect to the Overall Objective*

   At the first stage of comparison, the experts were asked to indicate the relative importance of the six criteria with respect to the overall goal. The result of the normalized weights and the rank for these six criteria towards the overall goal in each two divisions is displayed in Table 4. The details of pairwise comparison of criteria by the two divisions were also presented.
   Product Division. As displayed in Table 4, the financial performance had the

highest relative weight of 0,281 and followed by the customer's indicator level with 0,261. The third and fourth rank were product performance and competitive performance, with relative weights 0,163 and 0,161 respectively. The criteria future development process and after launch effort were positioned in the last two ranks of the criteria, with the relative weights 0,082 and 0,052 respectively. These results indicated that financial performance was perceived as the most important criterion in selecting the critical success factors of a product for telecommunication sectors by product division. The table also showed the inconsistency ratio for the pairwise comparison for the product division is 0,03, which was still in the tolerable level of 0, 1.

Marketing Division. The division indicated that financial performance and customer's indicator level as the top two criteria, with relative weights 0,283 and 0,276 respectively. The ranks was followed by product performance and future development process with relative weights of 0,162 and 0,122 respectively. The last two ranks of criteria were competitive performance and after launch effort with the relative weights of 0,091 and 0,066 respectively. These results also indicated that the financial performance was perceived as the most important criterion in selecting the critical success factors of a product for telecommunication sectors by the division. Then, it was also followed by the customer's indicator level criterion. The inconsistency ratio for the division (0,02) was still under the tolerable level of 0,1. The results from both divisions indicated that they already agreed in financial performance as the most important criterion in selecting the critical success factors of a product for telecommunication sectors. They perceived financial performance necessary, as it reflected the performance of all criteria which could eventually affecting its financial results. The divisions also agreed that customer's indicator level and product performance were the criteria following the financial performance. Both divisions seemed to believe that if the customers were already satisfied and had few complaints about the products, it means that the product were having a good performance, in either the design or quality, so that the customers convenient in using it.

Nonetheless, the divisions also faced different opinions toward future development process and after launch effort criteria. Product divisions indicated that future development process was less important than competitive performance, as it was crucial enough to also recognize the product's superiority when finding it, that for future product's management would not diverge from what was already planned beforehand. On the contrary, for marketing division the process of placing and timing the product to the market were more crucial. They perceived that the competitive performance could be flexibly formed after the market or customers experienced the product in advance.

2.2. *Comparison Among Sub-Criteria with Respect to the Criteria*

After pairwise comparison for all criteria, the second step of comparison was making comparison among sub-criteria with respect to the criteria. The experts were again asked to indicate the relative importance of the sub-criteria with respect to the criteria. Table 5 displayed the result of the normalized weights and the rank for these comparison in each two divisions.

a. Financial Performance

Product Division. The revenue and profit became two top priority indicators in selecting financial performance with the relative weights 0,407 and 0,247 respectively. While the sales quantity and operational cost followed

Table 5. Synthesized Priorities and Ranks for Sub-Criteria

Sub-Criteria	Product Division	Marketing Division
Financial Performance		
Revenue	**0,407 (1)**	**0,581 (1)**
Operational Cost	0,163 (4)	0,080 (4)
Profit	**0,247 (2)**	**0,239 (2)**
Sales Quantity	0,183 (3)	0,100 (3)
Customer's Indicator Level		
Level of Churn Rate	**0,373 (1)**	0,146 (3)
Level of Customer Loyalty	0,235 (3)	**0,447 (1)**
Level of Customer Satisfaction	**0,244 (2)**	**0,302 (2)**
Level of Customer Complain	0,148 (4)	0,105 (4)
Product Performance		
Product Design	0,170 (4)	0,118 (4)
Product Quality	**0,398 (1)**	0,176 (3)
Comfortably Used by Users	**0,217 (2)**	**0,412 (1)**
Easy to Sell	0,215 (3)	**0,294 (2)**
Future Development Process		
Technology	0,09 (4)	0,138 (4)
External Collaboration (Partner)	0,04 (7)	0,070 (7)
Time to Market	**0,278 (2)**	**0,260 (1)**
Infrastructure	0,072 (6)	0,120 (5)
Resource Allocation	0,074 (5)	0,112 (6)
Innovation	**0,335 (1)**	0,142 (3)
Product's STP	0,112 (3)	**0,159 (2)**
After Launch Effort		
Product Coverage	0,093 (4)	0,214 (3)
Marketing Promotions/Efforts	0,108 (3)	**0,225 (2)**
Superior Service Quality	**0,530 (1)**	0,208 (4)
Continuous Improvement	**0,269 (2)**	**0,353 (1)**
Competitive Performance		
Price/Tariff	0,117 (4)	0,180 (3)
Company Image	0,092 (5)	0,124 (5)
Customer Solution	**0,278 (2)**	**0,368 (1)**
Product Offerings (Augmentation)	0,148 (3)	0,107 (4)
Value Delivery of a Product	**0,366 (1)**	**0,221 (2)**

with 0,183 and 0,163 respectively.

Marketing Division. The revenue became the most important sub-criterion in selecting financial performance with the relative weight 0,581. Followed by the profit, sales quantity and operational cost with the relative weights 0,239; 0,100 and 0,080 respectively.

Overall. Table 5 indicated that both product and marketing divisions had no different opinions in determining priorities of financial performance. Both divisions were more inclined to choose financial performance from the final calculation results, represented by revenue and profit, than to choose from the unprocessed indicators. The revenue known as the result coming from total unit sales of product multiplied by the product's price, while profit coming from reducing revenue to any costs that the company have made, including operational costs.

b. Customer's Indicator Level

Product Division. Level of churn rate got the highest relative weight with 0,373, followed by level of customer satisfaction, level of customer loyalty and level of customer complain with 0,244; 0,235 and 0,148 respectively. It concluded that level of churn rate became the most important sub-criterion to select the customer's indicator level.

Marketing Division. Comparison in this division showed that level of customer loyalty was the most important sub-criterion in selecting the customer's indicator level with rela-

tive weights 0,447. Further, it was followed by level of customer satisfaction, level of churn rate and level of customer complain with relative weight 0,302; 0,146 and 0,105 respectively.

Overall. There were some different opinions between product and marketing divisions, in terms of determining the ranks for customer's indicator level. Product division which more technical oriented than marketing division chose level of churn rate as the most important sub-criterion. On the contrary, marketing division chose customer loyalty as the number one sub-criterion to select customer's indicator level. For product division, level churn rate could be interpreted also as level of customer's loyalty towards the products, in a more technical language. It actually could be influenced by their daily activities that were usually oriented in technical matters. As perhaps in their product's report, they were more familiar with technical terms (churn rate) than general terms (level of customer's loyalty).

Meanwhile, marketing division translated loyalty much greater than the customers simply always using the product. They believed when the customers were loyal, they were not only using it continuously, but they would also recommended it to other people, willing to search for or even willing to pay premium for the products (Farris, et al. 2010). For the division, this conditions would eventually affecting level of churn rate, which means that if the customers were still loyal, its level of churn rate would also became lower.

c. Product Performance

Product Division. The most important sub-criterion in selecting the product performance was product quality with relative weight 0,398. Product quality had the highest relative weight of all sub-criterion. The ranks were then followed by comfortably used by users, easy to sell and product design with relative weights 0,217; 0,216 and 0,170 respectively.

Marketing Division. For marketing division, comfortably used by users had the highest relative weights of all sub-criterion, which made it the most important sub-criterion in selecting the product performance. The position were then followed by easy to sell, product quality and product design as the least important sub-criterion with the relative weights 0,294; 0,176 and 0,118 respectively.

Overall. The differences in opinions occured from both divisions. In selecting the product performance, product division indicated that the product needed to first have superior quality in terms of product's reliabilty, limpidity and speed. The division believed that superior product quality could ensure the customer's pleasure in using the products. Meanwhile, marketing division indicated that if the products were already comfortably used by customers, it means that the product were well accepted by the customers, which resulted ease in selling the product. They believed that technical performance of the product could be developed and managed further after the customers experienced the products. These conditions, perhaps, could be affected by their background and experiences towards managing the products.

d. Future Development Process

Product Division. The division results showed that innovation played the most important role in selecting the future development process. It could be seen with the highest relative weight of 0,335. The position were then followed by time to market, product's STP and technology with relative weight 0,278; 0,112 and 0,09

respectively. The least important indicator in the sub-criteria were resource allocation, infrastructure and external collaboration (partner) with relative weights of 0,074; 0,072 and 0,04 respectively.

Marketing Division. Time to market became the most important sub-criterion in selecting the future development process in marketing division, with the relative weight 0,260. It were then followed by product's STP, innovation and technology with relative weights 0,159; 0,142 and 0,138 respectively. The least important sub-criteria in selecting future development process were infrastructure, resource allocation and external collaboration with relative weights 0,120; 0,112 and 0,070 respectively.

Overall. Product division perceived innovation more important than time to market in determining future development process. They believed that either creating or managing product should begin with the new ideas or concepts that could distinguish them to competitors. Through these new ideas or concepts, they could probably estimate all the requirements towards managing the products. It included when to launch the product to the market, product target, resource allocation, etc. On the other hand, marketing division tended to choose time to market as the most important sub-criterion in determining the future development process, which then followed by product's STP. For the division, timing and the market's condition played a significant role in determining the product's success. They believed that all the product's management process would be useless if it was not launched at the right time. The reason could also be applied to the product's STP. For them, every product was fundamentally designed for a certain market. Thus, an exact product's STP was crucially needed by every product.

e. After Launch Effort

Product Division. The superior service quality had the highest relative weight among all sub-criteria in determining the after launch effort with 0,530. It was then followed by continuous improvement, marketing promotions/effort and product coverage as the least important with the relative weights 0,269; 0,108 and 0,093 respectively.

Marketing Division. The division results showed that continuous improvement was the most important sub-criterion in determining the after launch effort with 0,353, followed by marketing promotion efforts with 0,225. The least important groups were product coverage and superior service quality with relative weights 0,214 and 0,208 respectively.

Overall. Product division tended to choose superior service quality as the most important factor in determining after launch effort, which then followed by continuous improvement. The superior service quality which not only focused on the customers but also focused on quality service of the internal company, such as repairing response of the networks, equipments and also service level guarantee, were required to be applied in order to facilitate the product's continuous improvement. Different to product division, marketing division perceived continuous improvement as the most important sub-criterion in determining the after launch effort. The division believed that continuous improvement was the way to the keep the customers satisfied and loyal to the product. The effort could then be supported through marketing promotions activities.

f. Competitive Performance

Product Division. The division results showed that value delivery of a product was the most important sub-

crierion in determining the competitive performance, with the relative weight 0,366. It was then followed by customer solution and product offerings (augmentation) with the relative weights of 0,278 and 0,148 respectively. The least important groups were price/tariff and company image with relative weights 0,117 and 0,092 respectively.

Marketing Division. The most important sub-criterion to determine competitive performance in marketing division was customer solution with relative weight 0,368. The other following sub-criteria were value delivery of a product, price/tariff, company image and product offerings (augmentation) with relative weights 0,221; 0,180; 0,124 and 0,107 respectively.

Overall. Product division perceived that technical specialty of a product was important, such as value delivery of a product. For the division, a product must deliver the same value as its planned beforehand. They believed if the product could deliver the value well, the customer's issues could have been solved with the existence of the products. Meanwhile, marketing division perceived that a good competitive performance of a product was a product that have an ability to solve every customers issues. It means that the existence of a products, could eventually increase the customer's business value. If the conditions have been achieved, the division believed that the product already have delivered its value to the customers.

3. *The Result of Core Category*

The results indicated that the core category from the AHP model was financial performance, which also consists of revenue and profit. The financial performance as the core category from this study have been known as a critical success factors of products in telecommunication factors. The extant literatures (Farris, et.al. 2010 ; Munoz 2008; Cooper and Kleinschmidt 2007) had studied the indication of financial performance as the critical success factors of a product. Farris et.al.(2010) emphasized that financial performance already got the top rank of all selected indicators. In addition, it also showed that profit and revenue achieved the top position of all financial performance indicators.

4. *The Different Vision Between Product and Marketing Divisions*

Despite the same perception in determining the most important criteria, both division also faced some differences in perspective to determine the prioritization among subcriteria. The different perspectives between both divisions could be further translated into insights representing their character towards critical success factors of product. The characteristics of both divisions was depicted in Figure 3.

Figure 3 described that basically, product division was more focused on managing product through technical approaches. The division was more concerned on not only about technical quality of products but also designing a specific plan when managing the products. They believed in requirement to constantly updated the ideas, infrastructure, equipments and networks during managing the products. Meanwhile, marketing division were characterized as always putting the customers first. They were more focused on either customer experience, needs and wants than technical specifications. To them, technical specifications could be flexibly formed following the conditions of market and customers. The study indicated that differentiation of vision between product and marketing divisions could influence their conditions in discussing either the selection of products which would be launched to the market or the resource allocated to the products.

The different results between two divisions seemed contrary to a state that an organization must create a unified vision and focus in achieving its goals, which one of the goals could be

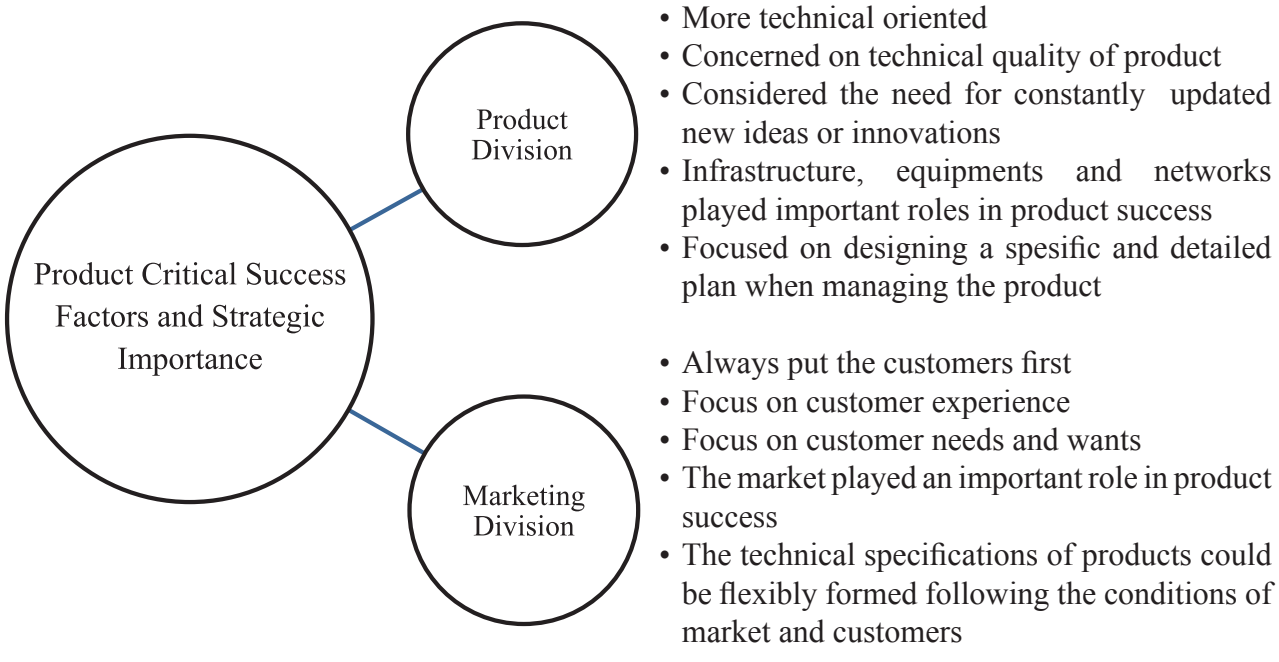

Figure 3. The Scheme of Both Divisions Characteristics towards Selecting the Critical Success Factors of Product and Strategic Importance in Telecommunication Sectors

established through developing and managing the products. Whereas, at the initial stage of developing the product, the company divisions certainly have to communicate the objective or vision towards the product. It raises a requirement for any company to create a clear vision that could guide its divisions in achieving their goals. The clear vision could both turn the company into more capable in creating the needs for change due to time development and enhance alignment around business processes, consequently the company can become more effective in implementing its strategies. Creating a vision would also result in a clearer and more persuasive communication among all company's divisions.

It was quite difficult for the divisions to direct its activities, without a clear vision inside a company, which cause difficulties for individuals in effectively implementing their efforts towards the company goals. A company without (or lack of) a clear vision often resulted in a fragmented activities of its individual units (Moore, Konrad and Hunt, 2010).

Certainly, creating a clear and precise vision is not an easy task. It required involvement from all company's divisions, especially the senior company leaders to build an ideal state of a company forward. The two-way communication between managers are important for reducing uncertainty about the impact of vision aberration that have been implemented previously.

Conclusions and Implications

The study was intended to analyze different perspectives between product and marketing divisions through determining the critical success factors of a product in telecommunication sectors using GT method. By studying the relevant literatures and interviewing practitioners in telecommunication sectors in Indonesia, the possible success factors were established. The experts from both product and marketing divisions have identified six criteria for critical success factors product in telecommunication sectors. These criteria were: financial performance, customer's indicator level, product performance, future development process, after launch effort and competitive performance. The experts from both divisions agreed that financial performance was the core category which played a big role in selecting critical success factors of a product in telecomunication sectors. It was followed by customer's indicator level as the second most important criterion in determining critical success factors of a product in telecomunication sectors. The six critieria were also consists of some sub-criteria. Throughout the sub-criteria selection, the experts were also

agreed to indicate that both revenue and profit had an important role in determining the financial performance.

Though the experts seemed agree to indicate financial performance's sub-criteria, they also faced some different perspectives in determining prioritizations of five other sub-criteria. These appeared to show some perspective and focus differentiations between divisions, which seemed contrary to a state that an organization must create a unified vision and focus in achieving its goals. These perspective differentiations could be used to characterize both divisions towards selecting critical success factors of product and strategic importance. Product divisions were more focused on managing product through technical approaches, they were characterized by their focus on technical specifications, while marketing division were more focused on customer and market conditions.

The implication for academics when conducting the research was they needed to consider in using understanable words, languages or descriptions when forming both the criteria and sub-criteria for it would affect the experts in pairwise comparison. They also needed to develop different critical success factors to measure the product importance. For managers or practitioners, the results showed some points of critical success factors that could determine product strategic importance, which was from the results managers could cautiously allocate their precious resources into certain factors or stages when managing the products. However, in order to do these well, the company also required a clear and focused vision towards its objective. Interfunctional managers should cooperate in finding a way to reach an agreement towards the same vision, which eventually would form conditions of good communication and coordination between divisions. With proper communication and coordination, the transfer of information, skills and costs could be performed well. Thus, simplifying the product management itself.

Future research

The research provided a base for further research in an area of product importance of telecommunication – different perspectives of inter divisions, particularly product and marketing divisions. The links between methods and results presented in this paper could be further examined and better understood through further research. First, on behalf of generalizing the results, propositions of testing on a larger number of sample would be necessary, which could cover both the other telecommunication company and experts. Second, it seemed necessary to develop other critical success factors in telecommunication sectors which could match with development of time. Third, since the study was based on Indonesian telecommunication company, the future research could be conducted in other countries. Fourth, the future research to investigate consequences in the field was also necessary, especially for telecommunication company. Finally, cross studies on different division which involved marketing division could be useful to clarify this study.

References

Balasubramaniam, Karthik. (2007), "*Product Portfolio Management and the Industry Lifecycle*", Electrical and Systems Engineering-University of Pennsylvania.

Byrne, Michelle. (2001), *"Grounded Theory as Qualitative Research Methodology"*, Association of Operating Room Nurses-AORN Journal, Vol. 73 No. 6, pp. 1155.

Cauchik Miguel, Paulo A. (2008), "*Portfolio Management and New Product Development Implementation: A Case Study in Manufacturing Firm*", International Journal of Quality & Reliability Management, Vol. 25 No. 1, pp. 10-23.

Cooper, Robert G. and S.J. Edgett. (1996), "*Critical Success Factors for New Financial Services*", Marketing Management, Vol. 5 No. 3, pp. 26.

Cooper, Robert G, Scott J. Edgett, and E.J. Kleinschmidt. (1997), "*Portfolio Management in New Product Development: Lessons from the Leaders*", Research Technology Management, Vol. 40 No. 5, pp. 16.

Cooper, Robert G and E.J. Kleinschmidt. (2007), "*Winning Business in Product Development: The Critical Success Factors*", Research Technology Management, Vol. 50 No. 3, pp. 52.

Dolbeck, Andrew. (2006), *"Competition in the Telecommunication Industry"*, Weekly Corporate Growth Report, February.

Farris, Paul W., Neil T. Bendle, Phillip E. Pfeifer, and D.J. Reibstein. (2010), *"Marketing Metrics-The Definitive Guide to Measuring Marketing Performance"*, Pearson Education, Inc.

Friend, B. and Thompson, O. (2003), *"Marketing & Production Get in-sync with the Demand-driven Supply Chain"*, Food Engineering, Vol. 75 No. 5, pp. 49.

Gould, L.S. (2009), *"Introducing Product Portfolio Management"*, Automotive Design & Production, Vol. 121 No. 1, pp. 40.

Gunasekaran, Angappa., E. Tirtiroglu, and V.Wolstencroft, V. (2002), *"Gap Between Production and Marketing Functions: a Case Study"*, Journal of Management Decision, Vol. 40 No. 5/6, pp. 428-435.

Halaweh, Mohanad. (2012), "*Using Grounded Theory as a Method for System Requirements Analysis*", Journal of Information Systems and Technology Management, Vol. 9 No. 1, pp. 23-38.

Jyun Cheng, Colin C. and E.C. Shiu. (2008), "*Critical Success Factors of New Product Development in Taiwan's Electronics Industry*", Asia Pasific Journal of Marketing and Logistics, Vol. 20 No. 2, pp. 174-189.

Killen, Catherine P., Robert A. Hunt, and E.J. Kleinschmidt. (2008), *"Project Portfolio Management for Product Innovation"*, International Journal of Quality & Reliability Management, Vol. 25 No. 1, pp. 24-38.

Kosaroglu, Mustafa. and R. A. Hunt. (2009), "*New Product Development Projects and Project Manager Skill Sets in the Telecommunications Industry*", International Journal of Managing Projects in Business, Vol. 2 No. 2, pp. 308-317.

Leitch, Robert A. (1974), *"Marketing Strategy and the Optimal Production Schedule"*, Management Science, University of Georgia, Vol. 21 No. 3, pp. 302.

Mansourian, Yazdan. (2006), "*Adoption of Grounded Theory in LIS Research*", New Library World, Vol. 107 No. 1228/1229, pp. 386-402.

McClure, Dave. (2003), "*Managing a Portfolio: A Sluggish Economy Boosts the Value of these Tools*", Accounting Technology, Vol. 19 No. 3, pp. 25.

McSparran, K. (1995), "*Managing the Product Portfolio*", Beverage World, Vol. 114 No. 1585, pp. 101.

Massey, Graham R. and E. Kyriazis. (2007), "Interpersonal Trust Between Marketing and R&D During New Product Development Projects". European Journal of Marketing, Vol. 41 No. 9, pp. 1146-1172.

Mills, Jane., Ann Bonner, and K. Francis. (2006), "*The Development of Contructivist Grounded Theory*", International Journal of Qualitative Methods, Vol. 5 No. 1, pp. 3.

Ming Chen, Jen., L. Tu Chen, and J. Der Leu. (2006), *"Developing Optimization Models for Cross-Functional Decision Making: Integrating Marketing and Production Planning"*, OR Spectrum, Vol. 28, pp. 223-240.

Mogadham, Keyvan R., and E. Karami. (2008), "*A Multle Criteria Evaluation of Sustainable Agricultural Development Models Using AHP*", Springer Science-Business Media, Vol. 10, pp. 407-426.

Moore, Mark E., Alison M. Konrad, and J. Hunt. (2010), *"Creating a Vision Boosts the Impact of Top Management Support on the Employment of Managers with Disabilities-The Case of Sport Organizations in the USA"*, Equality, Diversity and Inclusion: An International Journal, Vol. 29 No. 6, pp. 609-626.

Munoz, Jairo. (2008), "*Success Factors in Telecom Service Development: A Grounded Theory*", Department of Systems and Computer Engineering-Carleton University, Ottawa, Canada.

Ogawa, D. and Ketner, L. (1997), *"Benchmarking Product Development"*, Telephony-Marketing and Services, Vol. 232 No. 4, pp. 34.

Pitta, Dennis A. (2008), "*Product Innovation and Management in A Small Enterprise*", Journal of Product & Brand Management, Vol. 17 No. 6, pp. 416-419.

Rao, Sanjay K. (2009), "*Re-energizing a Product Portfolio: Case Study of a Pharmaceutical Merger*", Journal of Business Strategy, Vol. 30 No. 6, pp. 52-62.

Ruekert, Robert W. and O.C. Walker, Jr. (1987), *"Interactions Between Marketing and R&D Departments in Implementing Different Business Strategies"*, Strategic Management Journal, Vol. 8, pp. 233-248.

Saaty, Thomas L. (1990), "*The Analytic Hierarchy Process*", RWS Publications.

Sabbagh, Karim., Chady Smayra, Amr Goussous, and N. Mathieu. (2012), *"Managing Telecom Portfolios for Sustainable Growth"*, Perspective-Booz & Company.

Suwannaporn, Prisana. and Mark W. Speece. (2010), "*Assessing New Product Development Success Factors in the Thai Food Industry*", British Food Journal, Vol. 112 No. 2, pp. 364-386.

Zarif, Tayyaba. (2012), *"Grounded Theory-An Overview"*, Interdisciplinary Journal of Contemporary Research in Business, Vol. 4 No. 5.