DOES THE FIT OF COMPETITIVE PRIORITIES BETWEEN MANUFACTURING AND MARKETING FUNCTIONS MATTER? A PROPOSAL

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ABSTRACT

In this paper, I propose a study to investigate the relationship between an organization's performance and the fit of competitive priorities of manufacturing and marketing functions. There are two propositions in this study. First, organizations that exhibit a higher degree of fit of competitive priorities between their marketing and manufacturing functions will have a higher customer satisfaction compared to those that exhibit a lower degree of fit of competitive priorities between their marketing and manufacturing functions. Second, organizations that have higher customer satisfaction will have better financial performance compared to those that have lower customer satisfaction. I suggest manufacturing companies to be used as the sampling frame. Respondents are those who hold the top most position in manufacturing, marketing and finance departments. A simple regression can be used to analyze the data. I believe the proposed study will provide empirical support to show the importance of manufacturing and marketing functions subscribing to the same set of competitive priorities.

IINTRODUCTION

The present marketplace can be categorized as dynamic and dissimilar. Its increasing rate of change has augmented competition and has forced organizations to be more efficient and flexible. The changing marketplace should remind organizations that a successful strategy employed today might not work in the future. Organizations should also realize that a continuous process of monitoring the environment is a must in today's business. Organizations need to be aware of the changes that are taking place in the marketplace. An ability to identify the changes and then adapt to the changes is one of the important factors that will determine their success.

Organizations can be viewed from several levels: corporate, business and functional levels. In a traditional strategy development process, organizations will first develop an overall corporate strategy. The overall corporate strategy is then cascaded down to the business and functional levels. Strategies that are being developed at the business and functional levels should support the overall corporate strategy. The reason is that each function should work toward common objectives. Each function also needs to share the same corporate priorities. By sharing common corporate priorities, each function can develop its functional strategies that will support overall corporate objectives.

Hill (2000) suggested that companies could build up their competitive advantage and achieve their corporate goals by linking manufacturing capability and marketing initiatives. Unfortunately, according to Hill (2000) the links between manufacturing strategy and marketing strategy is often limited. In developing positioning decisions, marketing fails to recognize the ability of manufacturing to support them. At the same time, in developing manufacturing strategies, manufacturing fails to reflect on the needs of the markets. The misalignment is due to a lack of agreement of competitive priorities between managers in manufacturing and marketing. The lack of agreement in the competitive priorities is due to a 'bunker' mentality and limited debate on strategy between the functions (Berry, et.al., 1999).

We may ask ourselves the following questions. Does the lack of fit in competitive priorities between marketing and manufacturing functions contribute to a lower organizational performance? Specifically, do organizations in which marketing and manufacturing functions have a higher fit in competitive priorities have a better performance compared to those who exhibit a lower fit level? This paper proposes that a higher fit in competitive priorities between the marketing and manufacturing functions will result in a higher organizational financial performance and this higher organizational financial performance is the result of higher customer satisfaction.

This study is important because it proposes an empirical study. More empirical studies are needed in order to build the necessary foundation for the development of theory on operation strategies. According to Leong, et.al., (1990), although some progress is being made in the area, manufacturing strategy is still being criticized for a lack of empirical studies and integration with other previous research. In addition, the proposed study will try to demonstrate the importance of fit in competitive priorities among functional units in organizations. It attempts to support a thesis that organizations will be able to improve their performance when all the functions share the same objectives and work in synchronization with each other.

LITERATURE REVIEW

Manufacturing strategy can be defined as the development of manufacturing competitive strengths that are aimed at assisting an organization to realize its competitive objectives (Amoako-Gyampah and S-Boye, 2001). Efforts and interest among researchers to link manufacturing strategy to corporate strategy emerged after Skinner's published article "Manufacturing – Missing Link in Corporate Strategy" (Anderson, et.al., 1989). The article sparked interest among researchers to perceive manufacturing as a strategic function of the organization. The article also led to more research related to the area.

The concept of "fit" in the development of strategy has always been emphasized in the strategy development process (Miles and Snow, 1978). Chandler (1962) emphasized the importance of internal fit to match structure with strategy. He stated that as organizations changed their strategy, new administrative problems arose that could only be resolved by realigning the organizational structure. For instance, organizations that are pursuing a growth strategy by adding more product lines could use multi-divisional structures. The

structure allows the central office to do long term planning and resource allocation activities and the division to solve immediate problems and meet the needs of each product.

Hayes and Wheelwright (1979) proposed a product-process matrix as a strategic option available to a company. They stressed the importance of matching between company's process choice and product life cycle. According to them, such a mismatch will cause organizations to loose competitive advantage.

Hill (2000) argued that manufacturing strategies should be aligned with corporate strategies. He argued that manufacturing executives should take more proactive roles in developing the corporate strategy. Unfortunately, manufacturing executives are taking a reactive role in corporate strategy development. Hill provided eight probable reasons why manufacturing executives are taking a reactive role in the development of the corporate strategy. The eight reasons are how production executives see their role, how companies see manufacturing's strategic contribution, too late in the corporate debate to effectively influence strategic outcomes, failure to say no when strategically appropriate, lack of language to explain and concepts to underpin manufacturing strategy, functional goals versus manufacturing needs, length of tenure and top management's view of strategy.

The lack of debate in developing corporate strategy typically has caused the link between manufacturing strategy and other functional strategies to remain unclear. Berry, et.al., (1999) argued that management's ability to connect the strategic options in one function with relevant options in other functions is often limited. They proposed a framework and methodology (i.e. order-winners and qualifiers framework) to guide the development of functional strategy that will enhance the link between manufacturing strategy and other functional strategies. To them, a business will be more competitive if the linkage between manufacturing strategy and marketing strategy is improved.

The manufacturing function plays a very important role in assisting organizations to achieve their overall objectives. Swamidass and Newell (1987) emphasized the importance of manufacturing strategy as a competitive weapon to achieve corporate goals. They argued that organizations could exploit their manufacturing strengths to achieve corporate advantage. However, the success of achieving corporate objectives will also depend on the strategic fit of competitive priorities between levels in an organization.

Swamidass (1986) carried out a study to find out whether general managers or chief executives officers and manufacturing managers agree on the competitive priorities of their manufacturing unit. He conducted a study on 35 small-batch manufacturers in the machinery and machine tool industries. General managers or chief executive officers and manufacturing managers were the respondents of the study. The competitive priorities from the two levels of executives were elicited. The study found that there was a mismatch in manufacturing priorities between general managers or chief executive

officers and manufacturing managers. The misalignment in the priorities was suggested due to a communication gap.

Kathuria, et.al., (1999) also carried out a related empirical study. Two questionnaires were sent to each participating firm, one for the manufacturing manager and another for the general manager. 158 companies out of 1350 agreed to participate in the study. However, usable responses of 98 pairs of managers were analyzed in this study. The study found that the two levels of management did not agree. This result suggests that there is an inconsistency between manufacturing strategy and business strategy. Their study also found partial support for the proposition that organizational and demographic variables are related to the differences in competitive priorities. Kathuria, et.al., (1999) raised a concern for this misalignment given the tenet of strategic management that suggests the importance of a synchronized functional strategies and business strategies for organizations to be successful.

Most of the discussions above indicate the importance of a tighter linkage between manufacturing strategy and other functional strategies for organization to be competitive. The two empirical studies mentioned above show that there is a mismatch of manufacturing priorities between manufacturing and general managers. The empirical studies also give the probable causes of the mismatch. However, the studies do not investigate whether the mismatch affects organizational performance. Therefore, this paper is trying to fill in the gap by proposing a study to test the hypothesis that a lack of fit in competitive priorities among marketing and manufacturing functions affects the performance of an organization.

THEORITICAL FRAMEWORK AND HYPOTHESES

Many factors, both internal and external affect the performance of an organization. Examples of the external factors are technology, levels of competition, and market conditions. New technologies introduced by a competitor will affect the sales of a certain organization as the new product makes the existing one obsolete. Competitors' action, such as introducing a new product into the market, or engaging in an aggressive promotion and marketing, will also influence the existing demand. Their actions affect the competing organization performance by lowering the sales and hence the financial performance. Innovative promotion by the competitors might also cause the existing customers to switch to the competitors' product. The economic situation also has its say. Poor economic conditions result in a lower disposable income which in turn lower the consumers' spending. The low consumers spending lead to a decline in sales. Suppliers are yet another factor that influences the organization financial performance. Unreliable suppliers disrupt production. It also affects the organization-customer relationship where product quality and delivery reliability might be seriously affected.

Internal factors can also have an effect on an organization performance. Examples of the internal factors are corporate leadership, organizational culture, workers motivation and others. Visionary leaders are able to develop and then execute strategies for the organization effectively and successfully. Organizational culture also contributes to the

organization performance. Innovative culture encourages workers to come up with innovative products that can add profit to the organization. The culture also encourages the workers to come up with a lot of innovative ways on how works are done efficiently. Moreover, workers' motivation also contributes to better organization performance. Motivated workers are more likely to be more productive.

Figure on the next page shows a simple model on factors that affect an organizational performance.

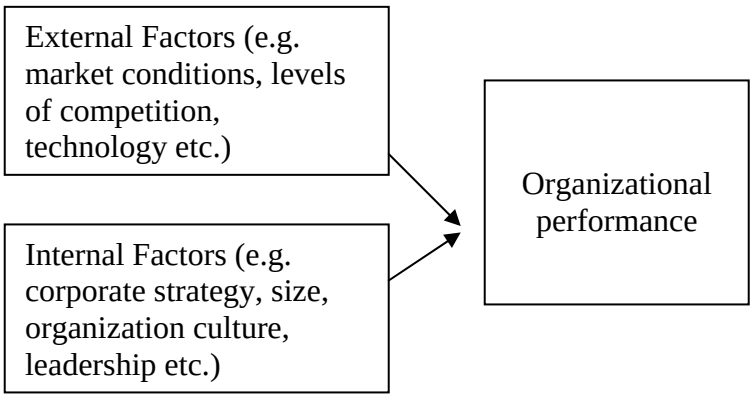

Figure 1: Factors Affecting Organizational Performance

Examples of external and internal factors we just discussed are not exhaustive; there are many other external and internal factors that are pivotal in shaping the performance of organizations. To find factors that affect organization performance is like finishing a puzzle. There are a lot of pieces that need to be sorted out because each piece is part of the complete puzzle. In this study, we will only examine one piece of the puzzle. The proposed study will be narrowed to examine one internal factor. Specifically, we suggest investigation on whether the levels of agreement of competitive priorities between manufacturing and marketing functions affect organization performance or not.

This proposed study uses the framework suggested by Hill (2000) that the manufacturing and the marketing strategy can be linked by using order winners and qualifiers. This framework was used as a guideline to test the hypothesis and outlined in this section. We first discuss Hill's order winner and qualifiers framework.

Hill (2000) provides a framework on how to link corporate strategy with manufacturing strategy. He proposes a link between corporate objectives, marketing strategy and manufacturing strategy by using market place based qualifiers and order winners. Qualifiers are criteria that companies must meet for a customer to even consider them to be possible suppliers. An example of a qualifier is the ISO 9000 certification. ISO 9000 is a qualifier which customers require their suppliers to have if they want to be considered as their suppliers. Order winners are criteria that win orders. The exhibit

shows how the order-winners link with the corporate objectives, the marketing strategy and the manufacturing strategy.

Corporate Objectives	Marketing Strategy	How Do Products Qualify and Win Orders in the Marketplace	Manufacturing Strategy	
			Process Choice	Infrastructure
Growth Survival Profit Return on investment Other financial measures	Product markets and segments Range Mix Volumes Standardization versus customization Level of innovation Leader versus follower alternatives	Price Conformance quality Delivery speed Delivery reliability Demand increases Color range Product range Design Brand image Technical support After-sales support	Choice of alternative processes Trade-offs embodied in the process choice Role of inventory in the process configuration Make or buy Capacity size Capacity timing Capacity location	Function support Manufacturing planning and control systems Quality assurance and control Manufacturing systems engineering Clerical procedures Compensation agreements Work structuring Organizational structure

Figure 2: Order-Winners Linkage
Source: Hill (2000)

Qualifiers and order winners can be used as a link between marketing and manufacturing because qualifiers and order winners are basically the needs of the customers. By reflecting on the same criteria, marketing and manufacturing are working in synch. Manufacturing can build up its process choice and infrastructure that is more aligned to support the marketing strategies. When both the marketing and manufacturing functions share common qualifiers and order winners, they are actually working in synch toward achieving the overall corporate objectives. We might infer that customer satisfaction will improve. The reason is that marketing and manufacturing are supporting each other in fulfilling the customers' needs. As the customer satisfaction improves, the organization will be able to increase its sales and this will result in a better financial performance.

If manufacturing and marketing do not share the same order winners and qualifiers (competitive priorities) then a mismatch will occur. Manufacturing will not support the

marketing strategies and hence, the overall corporate strategy. It is very difficult then for the organization to achieve its overall objectives and this might affect the customer satisfaction and hence, its performance. This brings us to the hypotheses of this paper.

Hypothesis I: Organizations that exhibit a higher degree of fit of competitive priorities between their marketing and manufacturing functions will have a higher customer satisfaction compared to those that exhibit a lower degree of fit of competitive priorities between their marketing and manufacturing functions.

A higher customer satisfaction in turn will positively impact the financial performance of the organization. Therefore, the next hypothesis is:

Hypothesis II: The higher the customer satisfaction, the better the financial performance of an organization.

A model of the study is shown below. The model illustrates the proposed hypotheses. It indicates that a higher fit in competitive priorities between manufacturing and marketing functions will result in a higher customer satisfaction and in turn organization's financial performance. The model also shows the variables that will be used to measure the organizational performance.

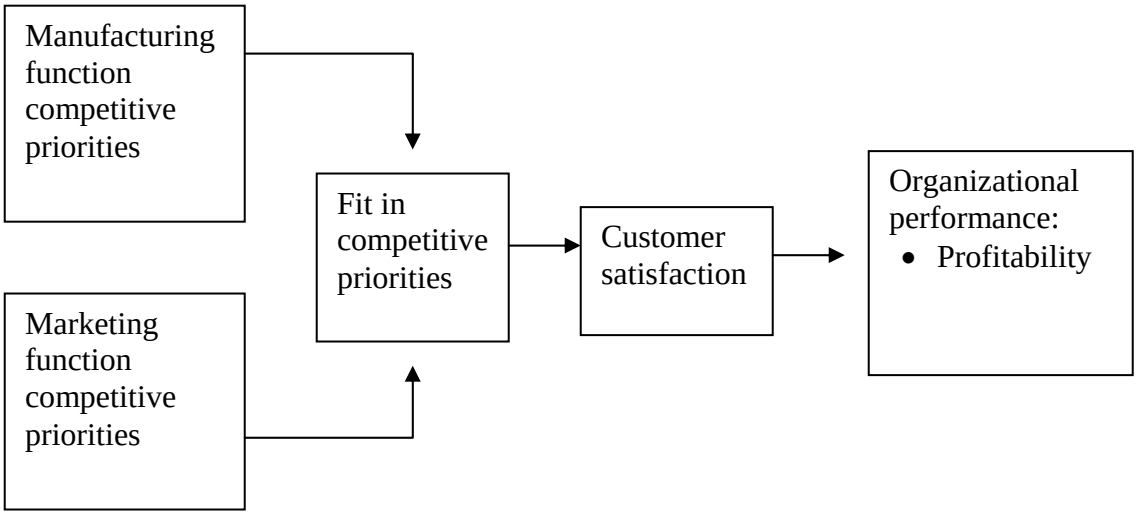

Figure 3: The Research Model

RESEARCH STRATEGIES

Several scholars use four distinct competitive priorities: cost, quality, flexibility and dependability (or delivery) in their empirical and theoretical research (Wheelwright, 1984; Kathuria, et.al., 1999; Kathuria and Partovi, 2000). This paper also uses the four

basic priorities. Cost can be lowered by running the production system efficiently and controlling product costs (Nemetz, 1990); establishing tight cost control (Porter, 1980) and achieving a high level of production standards (Kotha and Orne, 1989).

Quality has many definitions depending upon the situation it is used. In this paper, quality is associated with the conformance to specifications or quality of conformance. It involves ensuring conformance of final products to design specifications and accuracy in manufacturing (Kathuria, et.al., 1999).

Scholars define flexibility differently. Beckman (1990) defines flexibility as the ability to deploy and redeploy resources effectively in response to the changing conditions. On the other hand, Ramasesh and Jayakumar (1991) defined flexibility as capability to respond to changes. In this paper flexibility has the following forms: the ability to introduce new products, adjust capacity, handle changes in the product-mix, handle variations in the delivery schedule, and the ability to customize products (Kathuria and Partovi, 2000).

Hill (2000) divides delivery into two: delivery reliability and delivery speed. Delivery reliability is the ability to meet delivery promises to customers and delivery speed is the ability to deliver faster than the competitors. In this paper delivery implies dependable delivery promises and fast deliveries.

Firm performance can be assessed in many ways. Thompson and Strickland (1993) identified four criteria that can be used to measure firm's performance. These four criteria are related to markets, products, economic outcomes and employees. This categorization of performance is very broad. Based on the model proposed at the beginning of this paper, we will limit our assessment on firm's economic outcome or specifically its financial performance only. Financial performance variables that will be used to assess organizational performance are return on equity (ROE) and net profit margin (NPM).

In addition, it is anticipated that there will be difficulty in obtaining actual financial data (i.e. ROE and NPM) from the respondents. The financial data might be confidential, or the respondents might not remember the exact figure. Therefore, perceptual measures of organizational performance will be employed. The respondents will be asked to provide perceptual information on the performance of their company. Although it is desirable to use objective measures of performance, companies are often reluctant to furnish objective performance data (Swamidass and Newel, 1987). Furthermore, the perceived measures have been used as a substitute when objective measures are not available (Dess and Robinson, 1984).

I propose a survey to gather relevant data to test the hypotheses. External factors such as the economy, unexpected demand and other factors differ across industries and they might affect financial performance of the organizations. In order to exclude these effects and limit the effect of customer satisfaction on the companies' financial performance, the sampling frame for this study should be limited to one industry.

Three individuals are proposed to be respondents for this study. The individuals are those who hold the top most position in their department (i.e. manufacturing, finance and marketing). These individuals might hold various titles such as director or manager. In addition, the selected respondents must have worked with the organizations for at least three years. This is to make sure that the respondents are well aware of the competitive priorities of the company so that they can answer the questions in the questionnaire appropriately.

For the first hypothesis, the independent variable is the level of fit in competitive priorities between the marketing and manufacturing functions and the dependent variable is the level of customer satisfaction. For the second hypothesis, the independent variable is the level of customer satisfaction and the dependent variable is the financial performance. As discussed earlier, four order winners and qualifiers were chosen in the study and are termed as competitive priorities. They are cost, quality, flexibility and delivery.

I propose three sets of questionnaire, each of which has two sections. The questionnaires to measure the level of fit in competitive priorities that are given to manufacturing and marketing functions are basically the same. The first section consists of short questions on the respondents' background. The second section in the questionnaire consists of questions asking the respondents to record their agreement on the importance of the four competitive priorities. The second questionnaire is for the finance function. The questionnaire consists of questions asking the respondent to indicate his or her perception of the organization last year's performance compared to the previous two years. The third set of questionnaire is for marketing function. The questionnaire consists of questions asking the respondent's perception of the organization's customer satisfaction.

I suggest the validated questionnaire prepared by Kathuria, et.al., (1999) to measure the manufacturing priorities fit between manufacturing and marketing functions. The other two sets of questionnaire are self-developed. The questionnaire for the finance function has two items. The questionnaire to measure the level of customer satisfaction has four items. Sample of the questionnaire is shown in the appendix.

Descriptive analysis should be used to analyze the background information of the respondents. Specifically, frequency and percentage distributions are used to summarize the data. The method to measure the fit between the competitive priorities of marketing and manufacturing functions is discussed below. First, the score for each item in the questionnaire given by the respondent from manufacturing will be subtracted from the score given by the respondent from marketing. The subtraction is then converted to absolute value. This step is to make sure all the values are positive. Then an overall mean is calculated. The overall mean measures the fit between the competitive priorities of marketing and manufacturing functions. The value of 0 shows a perfect fit, while a value more than 0 shows a lack of fit.

The mean of the four items that are used to measure customer satisfaction should also be calculated. A simple regression is then performed on these two mean scores (i.e. competitive priorities fit and customer satisfaction). The result of the regression will show whether there is any relationship between the priorities alignment and customer satisfaction. Moreover, the overall mean of the two items that is used to measure organization financial performance should also be calculated. A simple regression is then performed on two mean scores (i.e. customer satisfaction and organizational performance). The result of the regression will show whether there is any relationship between organizational performance and customer satisfaction.

CONCLUSION

I expect a positive relationship between the independent variable and the dependent variable for both hypotheses. We expect the result to show that a higher fit in competitive priorities between marketing and manufacturing functions, the higher the customer satisfaction. Moreover, the higher customer satisfaction is, the better the financial performance of the organization. As discussed earlier, the rationale is that a fit in competitive priorities between the marketing and manufacturing functions will result in them working more in synchronization. Manufacturing can build up its process choice and infrastructure that are more aligned to support the marketing strategies. At the same time, marketing will develop strategies that are more parallel to the capabilities of the manufacturing process and infrastructure. When both marketing and manufacturing share the same competitive priorities, they are actually working in synch toward achieving the overall corporate objectives. We expect this condition will improve the customer satisfaction and consequently, the performance of the organization.

The findings from the proposed study hopefully demonstrate the importance of manufacturing competitive priorities congruency among functional managers of the manufacturing firms. Organizations in which their functions share the same competitive priorities will have a better financial performance. The findings of the proposed study also indirectly suggest that more strategic debate should take place among functions in organizations. The debate session as suggested by Hill (2000) will result in more coherent strategy that will align all functions to support the business. The debate will facilitate the identification of functional strategies necessary to support the corporate objectives.

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APPENDIX

Description: Questions to measure the firm's manufacturing competitive priorities.

Based on: Kathuria, Porth and Joshi (1999)

For each of the items below, please circle the appropriate number to indicate the importance of the item for your firm to compete effectively in the industry in the last three years.

1 NOT AT ALL IMPORTANT
2 SLIGHTLY IMPORTANT
3 IMPORTANT
4 VERY IMPORTANT
5 EXTREMELY IMPORTANT

Circle only one answer for each statement.

Cost	
1. Low price	1 2 3 4 5
2. A standard, no-frills product	1 2 3 4 5
Flexibility	
3. Frequent design changes or new product introductions	1 2 3 4 5
4. Product variety	1 2 3 4 5
5. Rapid volume changes	1 2 3 4 5
6. Speed in product changeover	1 2 3 4 5
Quality Conformance	
7. Consistent quality	1 2 3 4 5
8. Accuracy in manufacturing	1 2 3 4 5
9. Conformance to product specifications	1 2 3 4 5
Delivery	
10. Short delivery time	1 2 3 4 5
11. Dependable delivery promises	1 2 3 4 5
12. Delivery on due date (ship on time)	1 2 3 4 5
13. Fast delivery	1 2 3 4 5

Description: Questions to measure the firm's financial performance.

For each of the item below, please circle the appropriate number to indicate your firm's last year's performance compared to the previous two years' performance.

1	2	3	4	5
Had Decreased		Remained The Same		Had Increased

Circle only one answer for each statement.

Return on equity	1	2	3	4	5
Net Profit Margin (NPM)	1	2	3	4	5

Description: Questions to measure customer satisfaction.

For each of the item below, please circle the appropriate number to indicate your perception on how satisfied your customers are with each of the items below.

Rating scale 1 to 5 (1-Very Poor, 2-Poor, 3-Average, 4-Good, 5-Excellent)

Product Pricing	1	2	3	4	5
Product Variety	1	2	3	4	5
Product Quality	1	2	3	4	5
Delivery Reliability	1	2	3	4	5