An Empirical Study of Diversification and Its Impact on Competitive Advantages Among Thai Manufacturers

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Abstract

This paper examines the effect of resource sharing upon competitive advantages in diversified organizations. The impact of management commitment, operational agreement, trust, and customer orientation on cost advantage, quality of products and/or services, and speed in providing products and/or services to the market is studied. This research gathered data from 500 Thai manufacturers. The questionnaire used in this study was adapted from previous diversification studies. The validity and reliability of the constructs were assessed and the relationships proposed in the research model were tested using Pearson's correlation and multiple regression analysis. This paper addresses six hypotheses related to three dependent variables and their impact by the independent variables. The findings reveal that competitive advantages have the strongest effect from customer orientation. Therefore, diversified organizations should put its top priority on customer orientation.

Keywords: Diversification, Competitive Advantage, Resource Sharing

1. Introduction

Diversification has been studied from many perspectives. Most often studies have considered diversification as a means to achieve organizational ends such as profit, growth in size, spreading risk of generating earning, or as a cause of administrative complexity.

Diversification in this paper context is the utilization and sharing of companies' resources at a certain level of involvement can give the competitive advantages to the companies.

This research focused on some diversification factors; management commitment, operational agreement, trust, and customer satisfaction; those can lead to organization's competitive advantages; cost advantage, quality of products or services, and customer services (speed of delivery products or services to customers).

The meaning of Diversification

The firm has been viewed as a collection of activities (Porter, 1985), a bundle of resources (Penrose, 1959), or a bundle of technologies (Granstrand and Sjölander, 1990). Therefore, it has

been popular to urge investigations of relatedness along these different dimensions in order to capture actual diversification activities between businesses (Grant et al., 1988). This research both developed and relied on the diversification factors. Different resource-relations between the parent firm and a venture were found to influence diversification performance. Some relations–for example, existing customer resources–shortened time-to-market (Tsai et al., 1991).

It was also suggested to combine these different resources into a multidimensional conceptualization of diversification. The firm's resources expressed in the major operating functions, marketing, production, and technology development, have also been proposed for a multidimensional perspective on diversification (Kazanjian and Drazin, 1987). Also the need for considering the value of certain resource-sharing for diversification has been identified. Diversification is suggested to benefit from relying on "what the firm is particularly good at", defined as strategic assets (Barney, 1991) or core competence (Prahalad and Hamel, 1990).

More dimensions can be added to increase the understanding of the complex relation between a parent firm and a diversification venture. Prahalad and Bettis (1986) suggested a strategic level of relatedness, in addition to operative resource sharing. This level considers the managerial competencies of a firm that consists of strategically diverse businesses. Bengtsson (1993) followed this by examining three diversification ventures in one firm. He combined relatedness at an operational and a strategic level by recognizing the existence of dominant management logic (Prahalad and Bettis, 1986). This led to an informative analysis of the role of diversification based on management competence, followed by an identification of projects that were either operationally or strategically diversified. Thus, the value of considering both multiple levels of analysis and managerial dimensions of diversification was indicated.

Another consequence of applying a resource-based perspective to diversification is that existing competence and routines can create obstacles for business development. These insights, which lead us to ask whether some aspects of diversification may be of negative and others of positive value, have not been sufficiently integrated into the concept of diversifications. The variety of answers to a frequently asked research question, whether diversification is good or bad for organizations, can be taken as evidence of such a double cultures (Thornhill and Amit, 2000). Increased relatedness between a venture and the parent firm has been associated with lower venture profitability (Miller and Camp, 1985) and higher production costs (Miller et al., 1991). Leonard-Barton (1992) examined the use of existing capabilities in diversification projects. She analyzed the impact on these projects from existing skills and knowledge, technical know-how, managerial systems, as well as values and norms, which together constituted core capabilities. A paradox was identified: in some projects that relied on existing core capabilities, these turned into core rigidities. In other words, relatedness between existing resources of the firm and the emerging business was of negative value. Dougherty (1995) draws similar conclusions from examples

such as how a chemical company relies on an existing high-quality production process for a new product, despite indications of the need for alteration. Thereby, competence-based relatedness becomes a weakness for the new business.

The growing critique on the static stance of the resource-based perspective points out that it is insufficient to consider a snapshot of the resource configuration when explaining competitive advantage (Dierickx and Cool, 1989; Teece et al., 1997). This critique is also relevant for diversification. Markides and Williamsson (1996) are significant representatives of the argument that diversification will lead to sustainable competitive advantage only when diversification enables enhancement, or creation of strategic assets. Although difficult to operational, empirical support has been offered in favor of this type of dynamic diversifications (Markides and Williamsson, 1994).

Scope of Study

Survey research was used to collect data representative of a population. The research used information gathered from the survey to generalize findings from a sample back to a population, within the limits of random error. At 5% margin of error is acceptable.

Independent Variables

The independent variables are consisting of the following:

1. Management Commitment
2. Operational Agreement
3. Trust
4. Customer Orientation

Dependent Variables

The dependent variables are components competitive advantage, which consist of the following performance indicators:

1. Cost Advantage
2. Quality of products and/or services
3. Customer service (speed in providing products and/or services to the market).

2. Development of the Model and Hypotheses

In this section of the paper hypotheses are constructed relating each variable. Association between independent variables and dependent variables, four diversification factors; management commitment, operational agreement, trust, and customer orientation; are examined, the results representing exploratory findings rather than hypothesis testing. As a preliminary step to developing and testing the model, the independent variables were measured using six point Likert scales. Then the competitive advantages; cost advantage, quality of products or services, and customer

service (Speed of delivery products or services to the market) which are dependent variables were measured using five point Likert scales.

The first two hypotheses are concerned with cost advantage and its relation to diversification factors. The hypotheses three and four are concerned with quality of products or services and its relation to diversification factors. The last two hypotheses are concerned with customer service in terms of speed in providing products or services to the market.

Diversified organizations can manage their cost of products and services easier than the non-diversified organizations due to cutting the cost of the middle-out of their processes. The margin of the products and services can increase wile the cost of products and services is reduced and the sale price remain the same. Thus, sharing resources such as technology, customer-based, distribution channels, and raw material among the diversified organizations will enhance the cost leadership. A framework that has received much attention is based on the work of Michael Porter (Porter, 1980). The basis of his analysis is that organizations identify those activities for which they have a competitive advantage over their competitors.

In many markets, selling price is crucial to gain business and may be the most important basis on which buyers evaluate competing products. To achieve competitive advantage in such markets, a company needs to put a lot of effort into lowering its production and distribution costs so that it can charge lower prices than its competitors (Meybodi, 2003). The important point here is to achieve sustainable low prices. Cost advantage can result from being able to achieve economies of scale (Liao and Greenfield, 2000). Teece (1998) suggested that diversified companies have the ability to leverage economies of scale because they provide more efficient operations and more profitable lines of business than stand-alone companies. Obtaining benefits from diversification among businesses due to economies of scope requires establishing operating relationships among organizational units in diversified organizations. The strategy of *diversification* enables firms to exploit economies of scope (Porter, 1987; Heeley et al., 1999). This means that the *corporate* center of a firm operating in two strategic business units can exploit any synergies between the two (for example, in manufacturing or distribution) to achieve cost or differentiation advantages (or both) over non-diversified competitors.

Hypothesis 1: Diversification positively affects cost advantage.

Also, it is likely that each diversification factor will affect the cost advantage of the company to a different degree. Therefore, the research looked closely at each parameter and determines individually how each affects the cost advantage.

Hypothesis 2: Diversification factors affect Cost Advantage differently.

Quality is a key attribute that customers use to evaluate products or services (Bacon, 2004). Related diversification can help firms in the long-term achieve continuous improvement of their processes. It can also provide high-quality resources that are not only important in increasing the

overall quality to the supplier and manufacturer, but also additional benefits, such as decreased product cycle times (Yang and Pan, 2004). Armstrong (2004) found that improved quality increased their market share five or six times faster than those whose products declined in quality and three times faster than those whose relative quality was similar to their competitors. Quality improvement is a powerful means of building market share. Quality improvement is much more difficult to match; it requires more time, money, and creativity. High quality gives firms a competitive advantage that is much more likely to help them increase their market share than is a price war (Spear, 2004).

Product diversification through diversified organization is also a strategic choice for acquiring knowledge from the other firms (Farjoun, 1998). Chatterjee (1990) and Gomes-Casseres (1989) maintain that product diversification through diversified organizations provides learning opportunities through exposure to new markets, internalization of new concepts, ideas from new cultures, access to partner resources, and exposure to new competitors and terms of competition. This in turn reduces a company's liability of its vulnerability to contextual changes, thus strengthening the benefits generated from product diversification (Tallman and Li, 1996). Diversification is intuitively appealing because it supports the notion that core resources can be leveraged across related businesses and generates competitive advantages through the economies of scope (Barney, 1991). Businesses that improve quality also acquire a competitive advantage through quality-induced product differentiation, the creation of something that is perceived as unique throughout the industry. Although there are many ways to differentiate products, superior quality is one of the most commonly used methods. Product differentiation on the basis of quality creates a defensible competitive position and insulates a firm against inroads of rival firms (Porter, 1980). Customers who prefer the quality product are willing to pay more for the product (Martinez et al., 2003).

From the above literature review, the research findings will determine the relationship between Management Commitment, Operational Agreement, Trust, and Customer Orientation and Quality of Product and/or Service

Hypothesis 3: Diversification positively affects Quality of Product/Service

Again, it is likely that each parameter will affect the cost advantage of the company to a different degree. The research looks closely at each parameter and determines individually how it affects the quality of product and/or service.

Hypothesis 4: Diversification factors affect Quality of Product/Service differently.

A firm with superior speed capabilities within an industry can "...deliver more quickly than its competitors or meet a required delivery date when only some or even none of the competition can do so" (Hill, 1989; Griffin, 1997). Internal lead time is the primary dependent variable of interest as an indicator of delivery speed. Internal lead time is defined as the time it takes to produce a product with all purchased items available. (Mahmoud-Jouini et al. 2004).

This is usually measured as the sum of planning lead times for each process flow in the factory (Harrison, 1990).

Diversified organizations can reduce lead time for their products and services to the market by gaining control of their technologies, raw materials, and distribution channels. By controlling those constraints, diversified organizations can ensure their ability to provide products and services to the market on time. From the above literature review, the research findings will determine the relationship between Management Commitment, Operational Agreement, Trust, and Customer Orientation and Speed in Providing Products and/or services to the market.

Hypothesis 5: Diversification positively affects Speed in Providing Products/Services to the Market

It is also likely that each parameter will affect the cost advantage of the company to a different degree. The research looks closely at each parameter and determines it individually how it affects speed in providing products and/or services to the market.

Hypothesis 6: Diversification factors affect Speed in Providing Products/Services to the Market differently.

3. Research Model

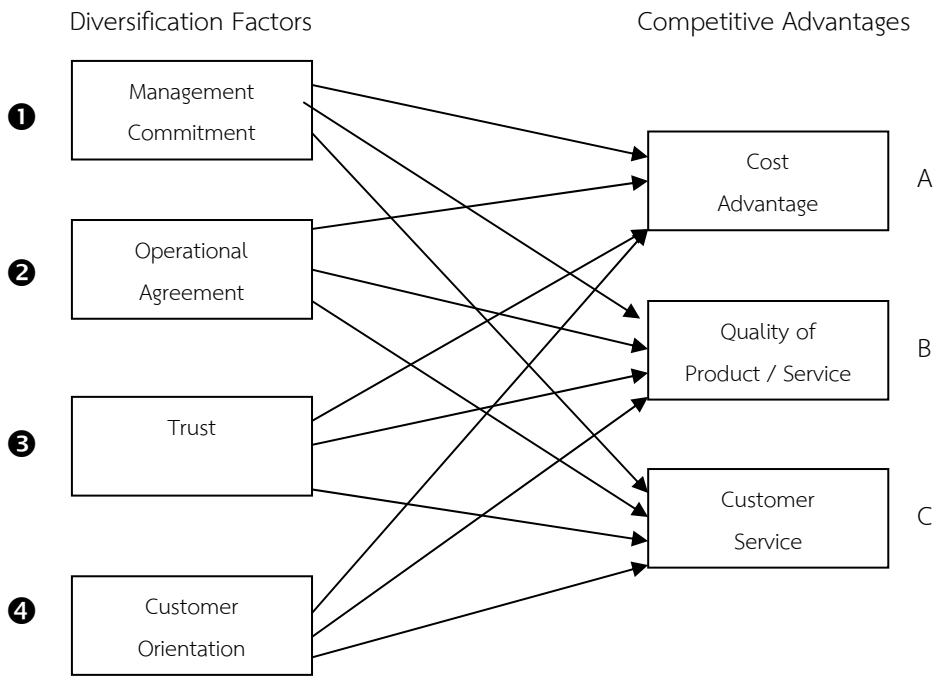

Figure 1: Research Model

4. Research Design

The research design for this study was developed using survey research as the data-gathering tool. The questionnaire method of data collection was used in order to receive enough responses to justify the identification of strategic characteristics of related diversification among Thai manufacturers.

Sample Selection

This study focuses on Thai manufacturers which are categorized according to industry type. A stratified random sampling technique was employed, as it is considered to be the most efficient among all probability sampling designs. From the Federation of Thai Industries, the total number of Thai manufacturers in our population group those diversified their businesses are 871. However, we can reach out only 500 companies. The sample population was 500 Thai manufacturers in six different industries.

The finalized questionnaire was distributed by mail to the 500 top managements or authorized project managers who are responsible for diversification of the 500 firms from six industries including; petrochemical gas, electrical appliances, auto parts and energy, electrical and electronics, food processing, other (industrial plastic, shoes, tourist industry, entertainment).

Before mailing out the questionnaires, unobtrusive mark was put on each of them in order to be able to identify which ones were returned. The follow-up procedures for obtaining additional responses included:

1. One month after the first questionnaire mail-out date, if there was no response, a follow-up letter was mailed.

2. Two weeks after the follow-up mail, telephone calls were made to those who had not yet responded.

Measurement of Variables

Six-point Likert scales were used to measure independent variables, while Five-point Likert scales were used to measure dependent variables.

Questionnaire Development

A pilot test was conducted to determine the relevance of data to the research questions and to evaluate the clarity and appropriateness of the questions contained in the questionnaire. However, before designing the questionnaire, in-depth interviews was conducted with executives of selected manufacturers to gather the information on current related diversification practices in Thailand and other information that would be helpful in the questionnaire design. In addition, prior research relevant to related diversification was used as a basis for questionnaire development.

The questionnaire is developed in English. However, most of the respondents were Thais whose skills in English may be limited. In order to ensure that every respondent was able to

understand the questions and answers thoroughly and correctly, the questionnaire was translated into Thai, and then translated back into English by an expert proficient in English and also knowledgeable in related diversification. The original English version and the reverse translation were compared to ensure that there were no discrepancies between languages.

A preliminary survey was conducted in person with five executives responsible for diversification in their organizations. The respondents were advised that this was a preliminary test to validate the questions. They were asked to complete the survey and include their comments. Items that respondents were unable or uncomfortable to answer were revised. In addition, the constructs in the research model were checked for their validity and reliability. In order to measure the construct validity, correlation analysis or factor analysis was used. Cronbach's coefficient alpha was used to test for reliability of the constructs. The results of these tests were used to decide whether any of the items needed to be revised or dropped. Contents of the final questionnaire were adjusted until they reached an acceptable level of clarity, validity, and reliability.

Data Sources

The population of Thai manufacturers involved in related diversification was drawn from the following sources:

1. Federation of Thai Industries
2. Thailand's Board of Investment
3. Stock Exchange of Thailand
4. Financial Institutions

Statistical Instruments

Descriptive statistics, such as mean and standard deviation, were used

Inferential Statistics analysis tools such as multiple regression analysis and other suitable analysis were employed. This allowed for exploration of relationships among variables as well as other findings from this study.

In order to address the research questions and test the hypotheses, it is necessary to assess the independent variables. To test the research question, regression analysis was run on feedback from the questionnaires following Bettis and Hall's (1982) approach.

5. Data Analysis of Data

Descriptive Results

Usable responses were received from 194 of the 500 companies surveyed, or 38.8 percent. As shown in table 4.1, most of the participants are in managerial positions (49.0 percent). Most participants are in organizations that have been in business for over ten years (71.6 percent). The typical number of employees in the organization ranges from 251-500 employees (26.3 percent).

The most prevalent core business was the Electrical and Electronic industry (44.3 percent). Responding organizations typically have been diversified for over 10 years (54.1 percent). Operate as subsidiaries of the same company (81.5 percent), and share executives and management between the allied organizations (24.5 percent).

Table 1: Descriptive Statistic for Variables in the Research

Variable	Min	Max	$\bar{x}$	SD	Level
1. Management Commitment	0.00	5.00	3.01	1.11	Moderate
2. Operational Agreement	0.00	5.00	3.05	1.04	Moderate
3. Trust	0.00	5.00	3.04	1.10	Moderate
4. Customer Orientation	0.00	5.00	3.48	1.10	High
5. Cost Advantage	1.00	5.00	3.54	1.06	High
6. Quality of products and / or service	1.00	5.00	3.58	1.04	High
7. Customer service	1.00	5.00	3.54	1.06	High

The results from Table 1 show that

1. The effect of Management Commitment in Resource Sharing with Allied Organizations results in a middle level of Competitive Advantages over Competitors, with mean of 3.01 and standard deviation of 1.11.

2. The effect of Operational Agreement in Resource Sharing with Allied Organizations results in a middle level of Competitive Advantages over Competitors, with mean of 3.05 and standard deviation of 1.04.

3. The effect of Trust in Resource Sharing with Allied Organizations results in a middle level of Competitive Advantages over Competitors, with mean of 3.04 and standard deviation of 1.10.

4. The effect of Customer Orientation in Resource Sharing with Allied Organizations results in a high level of Competitive Advantages over Competitors, with mean of 3.48 and standard deviation of 1.10.

5. The effect of Resource Sharing yields a high level of competitive advantage from cost versus competitors, with mean of 3.54 and standard deviation of 1.06.

6. Resource Sharing yield high level of competitive advantage from quality products and services versus competitors, with mean of 3.58 and standard deviation of 1.04.

7. Resource Sharing yield high level of competitive advantage from customer service versus competitors, with mean of 3.54 and standard deviation of 1.06.

Results of Hypothesis Testing

The research model for this study is designed to determine the relationships between the independent variables, which are diversification factors and the dependent variables which

are competitive advantages. The results of the testing of the hypotheses as presented in Chapter 2 are included in this section.

The data analysis will determine the impact of Resource Sharing in terms of Cost Advantage, Quality of Products and/or Services, and customer service (speed in providing products and/or services to the market) using Multiple Regression Analysis with 3 equations as follows

1. Analysis of the result of Diversification associated with Cost Advantage.

Dependent Variable is Cost.

Independent Variables are:

1. Management Commitment,
2. Operational Agreement,
3. Trust,
4. Customer Orientation.

2. Analysis of the result of Diversification associated with Quality of Products and/or Services.

Dependent Variable is Quality of Products and/or Services.

Independent Variables are:

1. Management Commitment,
2. Operational Agreement,
3. Trust,
4. Customer Orientation.

3. Analysis of the result of Diversification associated with customer service.

Dependent Variable is customer service (speed).

Independent Variables are:

1. Management Commitment,
2. Operational Agreement,
3. Trust,
4. Customer Orientation.

In order to test the research hypotheses, Pearson's correlation coefficients were calculated between each diversification factors and competitive advantages. These coefficients measure the strength of a linear relationship between two quantifiable variables (Theodorakioglou, Gotzamani, and Tsiolvas, 2006). Correlation results of Pearson's coefficient are presented in Table 2.

Table 2: Correlation results of Pearson's coefficient

	Management Commitment	Operational Agreement	Trust	Customer Orientation	Cost Advantage	Quality of products and/or service
Management Commitment						
Operational Agreement	0.672**					
Trust	0.695**	0.739**				
Customer Orientation	0.564**	0.645**	0.664**			
Cost Advantage	0.187**	0.329**	0.243**	0.259**		
Quality of products and/or service	0.214**	0.332**	0.221**	0.412**	0.733**	
Speed in providing products and/or service to the market	0.223**	0.351**	0.194**	0.415**	0.666**	0.822**

$r \leq 0.75$

The findings and tests of hypotheses related to these relationships are summarized as follows: the Pearson's correlation coefficient (r) of each set of two variables not higher than 0.75 support that there is no multicolinearity, this shows that the analyzed data meets the requirements of statistical techniques.

Table 3: Multiple Regression on Resource Sharing to Cost Advantage

Variable	B	β	T	p-value
Constant	2.439		9.357	0.000
Management Commitment	-0.082	-0.085	-0.841	0.402
Operational Agreement	*0.333*	*0.324*	*2.915*	*0.004*
Trust	-0.004	-0.004	-0.033	0.973
Customer Orientation	0.097	0.100	1.040	0.299
F = 6.195, p-value = 0.000, R^2 = 0.116				

$P < 0.05$

The findings and tests of hypothesis 1, Diversification positively associated with Cost Advantage, using multiple regression analysis showing F value equal to 6.195, p-value equal to 0.000 mean that multiple regression is suitable to be used and the regression coefficient (R^2)

value is 0.116 support that all four independent variables can be used to determine the cost (dependent variable) at 11.6 percent.

From the same table, findings and tests of hypothesis 2, Diversification differently affects Cost Advantage, was also analyzed and can be concluded that using the standardized regression coefficients (R^2), operational agreement, is significant correlation to cost advantage with the β value equal to 0.324. The result supports that operational agreement helps the diversified organizations in achieving cost advantage.

Table 4: Multiple Regression on Resource Sharing to Quality of Products and/or Services

Variable	B	β	T	p-value
Constant	2.176		8.989	0.000
Management Commitment	-0.038	-0.041	-0.423	0.673
Operational Agreement	*0.245*	*0.245*	*2.312*	*0.022*
Trust	-0.196	-0.208	-1.876	0.062
Customer Orientation	0.392	0.415	4.513	0.000
F = 11.654, p-value = 0.000, R^2 = 0.198				

$P < 0.05$

The findings and tests of hypothesis 3, diversification positively associated with quality of products and/or services, using multiple regression analysis showing F value equal to 11.654, p-value equal to 0.000 mean that multiple regression is suitable to be used and the regression coefficient (R^2) value is 0.198 support that all 4 independent variables can be used to determine the quality of products and/or services (dependent variable) at 19.8 percent.

From the same table, findings and tests of hypothesis 4, diversification differently affects quality of products and/or services, also are analyzed and can be concluded that using the standardized regression coefficients (R^2), three independent variables, namely, operational agreement, trust, and customer orientation, are significant correlation to quality of products and/or services with the highest β value on customer orientation equal to 0.415. The result supports that operational agreement and customer orientation help diversified organizations in achieving benefit on quality of products and/or services.

Table 5: Multiple Regression on Resource Sharing to Speed in Providing Products and/or Services to the Market

Variable	B	β	t	p-value
Constant	2.066		8.463	0.000
Management Commitment	-0.010	-0.011	-0.115	0.909
Operational Agreement	*0.325*	*0.316*	*3.033*	*0.003*
Trust	-0.306	-0.316	-2.907	0.004
Customer Orientation	0.414	0.428	4.729	0.000
F = 13.696, p-value = 0.000, R^2 = 0.225				

$P < 0.05$

The findings and tests of hypothesis 5, diversification positively associated with speed in providing products and/or services, to the market using multiple regression analysis showing F value equal to 13.696, p-value equal to 0.000 mean that multiple regression is suitable to be used and the regression coefficient (R^2) value is 0.225 support that all 4 independent variables can be used to determine speed in providing products and/or services to the market (dependent variable) at 22.5 percent.

From the same table, findings and tests of hypothesis 6, diversification differently affects speed in providing products and/or services, to the market are also analyzed and can be concluded that using the standardized regression coefficients (R^2), three independent variables, namely, operational agreement, trust, and customer orientation, are significantly correlated to speed in providing products and/or services to the market with the highest β value on customer orientation equal to 0.428. And, management commitment is not significantly correlated to speed in providing products and/or services to the market.

Table 6: Summary of Hypothesis Testing

Competitive Advantages	Hypothesis	Support
Cost Advantage	H1	All diversification factors at 11.6 percent
	H2	Operational Agreement
Quality of product/service	H3	All diversification factors at 19.8 percent
	H4	Operational Agreement, customer orientation
Customer service	H5	All diversification factors at 22.5 percent
	H6	Operational Agreement, trust, customer orientation

Research Model

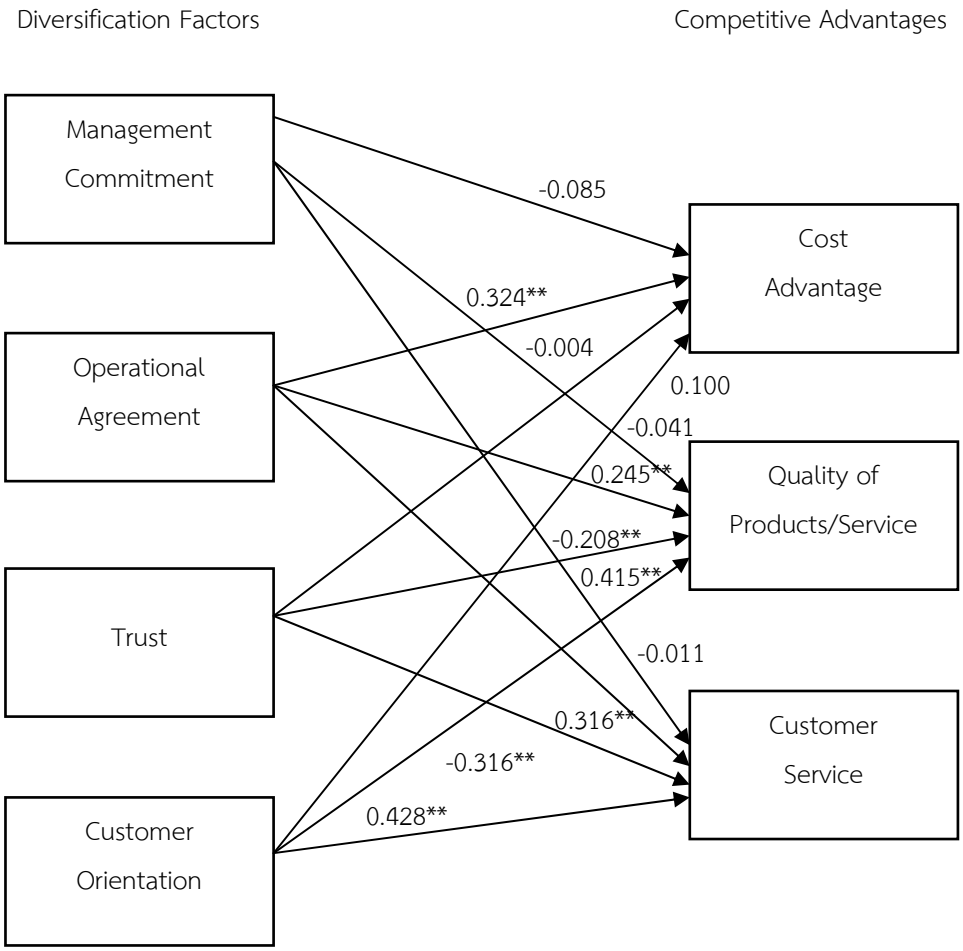

Figure 2: Results of multiple regressions

6. Discussion and Conclusion

Discussion

We expected to see the positive relationship between resource sharing and competitive advantages. The results of this study provide empirical support to the research hypotheses revealing the positive, statistically significant correlation between resource sharing and competitive advantage. This research confirms the importance of resource sharing in diversification factors which include management commitment, operational agreement, trust, and customer orientation which significantly contribute to organizational competitive advantages. Understanding the relationship of resource sharing to diversification factors will help the competitive advantages of the diversified organization.

Findings from both Pearson's correlation analysis and multiple regression analysis show that customer orientation has the strongest significant relationship with customer service (speed

in providing products and/or services to the market). Thus, customer orientation can be considered as a crucial factor to increase competitive advantage of the diversified organization. Therefore, companies should pay particular attention to all dimensions of customer orientation. The customer orientation's dimensions include: 1) all parties among allied organizations sharing resources can contact customers quickly and efficiently, 2) all parties among allied organizations sharing resources can introduce new services and products for their customers, 3) all parties among allied organizations sharing resources can create new processes to access customers quickly, 4) all parties among allied organizations sharing resources can satisfy their customers with good products and services; and 5) all parties among allied organizations sharing resources can provide their customers the value upon the products and services purchased. Diversified companies need to ensure that these customer orientations are achieved, as they have a signification positive impact on competitive advantages. The benefits of customer orientation within diversified organization are little understood. They are interesting because they are collectively created and thus provide an advantage to a class of organizations, not to a single company, even though each company might access them differentially. The second potential benefit of customer orientation is they are a function of social processes. The communications between allied organizations are being needed in a period of time. Admittedly, customer orientation can helps companies move into related market in order to take competitive advantages. As originally conceived by industrial economists, diversification yields benefits that are economic in form of it optimum deployment of production in particular market. And, this is the answer to why diversified organizations are more competitive in cost, quality, and customer service (speed of delivery) (Li, S. X. and Greenwood, R., 2004).

The operational agreement has a positive correlation with competitive advantages. This indicates that operational agreement is required among the diversified organizations in order to gain competitive advantages. Operational agreement includes clear instruction for utilizing resource among the diversified organizations, clear information on sharing resource holding workshops to allocate important practice among the allied organizations, sharing of new opinions about resource acquisition and new resource usage for creating work effectiveness, and continual evaluation of the efficiency of the resources and solutions.

The result also have shown that management commitment and trust have a negative relationship to competitive advantages, which means that increasing degree of management commitment and trust will lower the competitive advantages.

The results have shown that all of the resources sharing factors are significant to the companies' competitive advantages. Sharing resources across the diversified organizations is becoming more important to the business to achieve competitive advantages (Patnayakuni et al., 2006).

Implication

In the current business environment, many companies seek their way to implement the diversification. Many of them now also do not know exactly where to start implementing due to lack of understanding of what constitutes competitive advantages over their competitors (Zook and Allen, 2001). This study provides guidelines for organizations in sharing their resources to gain competitive advantages by proposing four diversification factors (management commitment, operational agreement, trust, and customer orientation). The results of this study demonstrate the significant relationships these diversification factors have on competitive advantages.

The results of this research reveal that not every diversification factor is equally related to competitive advantages. Some of these factors, including customer orientation and operational agreement, are found to be more significant determinants of competitive advantages. Thus, diversified organizations should emphasize these characteristics in the implementation of resource sharing in allied organizations.

Limitations and Recommendations for Future Research

The concept of resource sharing in diversification is becoming more popular among Thai manufacturers. Future research may include other diversification factors that were not covered in this study.

The data for this study consisted of responses from many participants in organizations, which may cause an error. The explanation in detail for each question may be used for future research to get more accurate data and enhance the result of research findings.

This study did not examine the income of these diversified organizations before and after they implement the diversification. Future research might need to bring in financial information to support the competitive advantages.

This research collected data from Thai manufacturers only. The findings may be different in other industries and also other countries. Future research could be conducted in other industries and other countries to provide fruitful field of research endeavor.

Conclusion

This study demonstrates the importance of resource sharing in diversified organizations. It provides empirical justification for a framework that identifies four strategic characteristics of diversification, (management commitment, operational agreement, trust, and customer orientation), and their relationship with competitive advantages (cost advantage), better quality of products and/or services, and customer service in terms of faster speed in providing products and/or services to the market).

The findings contribute to the knowledge in the field of resource sharing in diversification by providing a comprehensive set of diversification factors with a different perspective than earlier diversification research. A valid and reliable instrument was used and statistical analyses were

performed in this study. It was found that two diversification factors, customer orientation and operational agreement, are needed to successfully achieve competitive advantages. The positive relationships between these diversification factors and competitive advantages are confirmed by this study.

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