

The Relationship between Resource Configuration and the Type of Diversification—Take the Largest Corporations in Taiwan as Examples

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ABSTRACT

It is important for an organization to recognize the importance of resource mobilization in formulating development strategies. The type of resources acquired by an organization also determines entering a new business territory. The previous study on this subject matter has often focused on the characteristics of one particular type of resources. This approach can construct a theoretical model with simplicity. However, it is debatable whether a single type of resources plays a key role in the decision process of development strategies when an enterprise seizes a chance to diversify its business scale. This problematic has not been discussed in previous research.

This research starts with the literature review of the relationship between the type of resources and that of diversification. Through analyzing one particular type of resources and characteristics of resources, fruitful research results have been accumulated. However, it is also found that the same type of resources directs to different types of diversification. In reality, a company examines different types of resources while considering its development opportunity. That is, different types of resources mutually influence each other. If we reach an agreement on the above argument, it is understandable why one type of resources may result in different types of diversification. Furthermore, the relationship between resources and diversification can be examined through forming a resource-configuration perspective.

This study is based on the analysis of 152 development projects of the largest Taiwanese enterprises. Through further analysis, it is attested that different types of resources mutually influence each other. That is, in the case of development strategies, due to various combinations with other resources, a specific type of resources can result in different types of diversification. Derived from the resource-configuration perspective, this research also re-examines the relationship between the type of resource configuration and that of diversification. It is shown that there are obvious associations between the two.

1.Introduction

When an enterprise encounters a development opportunity, it analyzes the obtained information for the possible development. If the result of the analysis were supportive, the enterprise would construct a pragmatic development strategy. The viability of the analysis at this point relies on whether the enterprise's internal resources could sustain the development strategy, or whether an internal/external co-operation is possible to enhance or complement resources for further development.

The growth of an enterprise is commonly seen. As long as profits can be envisioned, it is an enterprise's ambition to expand its business scale. Therefore, to a certain extent, the type of resources, which an enterprise possesses, influences the direction of diversification. Many scholars have investigated this research area. In most of the textbooks regarding strategy management, diversification is often discussed in a particular chapter or section.

Even though many scholars in the past have paid attention to the issue of diversification, how the type of resources influences an enterprise's selection of the type of diversification is yet-to-be clarified. Since this problematic is central to management strategy, in-depth analysis and clarification are in demand.

Mostly, a traditional analysis of an enterprise's type of diversification is derived from an output-based viewpoint. That is, the similarity among products, markets and techniques is analyzed (see Capon et al. 1988; Montgomery & Wernerfelt, 1988; Nathanson & assano, 1990; Palepu, 1985; Rumelt, 1974, 1982; Shelton, 1988; Simmond, 1990; Varadarajan & Ramanujam, 1987.) However, Harrison et al. (1993) argue that there are some weaknesses and contradictions when diversification is inspected from the output-based point of view: One reason

for this loss of potential could be that some related diversification strategies that well formulated but inappropriately implemented. Another reason companies may not realize synergies is that the potential for synergies based on intangible resources relies on assumptions that business units producing similar products and marketing goods to similar customers use similar management techniques or share a strategic focus. These assumptions may not always be valid.

Most of the previous researches, organizational resources are studied through conducting qualitative interviews, which in turn helps the interviewed company to distinguish the type of resources utilized in development strategies. Most of the time, research as such focuses on the most significant type of resources. This research approach is necessary on the primary stage of theory construction by virtue of the following two reasons. First, for the sake of simplicity, theory as such can easily predict the development pattern; second, since the previous research often focuses on the characteristics of resources, analyzing particular one type of resources helps to make estimation. Nevertheless, in reality, it is necessary to clarify whether an organization determines development strategies through solely analyzing one type of resources or the combination of different types of resources.

Furthermore, even though the previous research which focused on how one specific type of resources influences the diversification decision, it also indicated that the same type of resources could result in different consequences. Therefore, it is questionable whether an enterprise only takes one type of resources into consideration while evaluating organizational resources for tackling diversification opportunities. If the situation as such is not sustained, the above perplexing research phenomenon can be explained: selecting the type of diversification depends on the interaction among various types of resources.

Itami & Roehl (1987) and Black & Boal (1994) argue that organizational resources exist in combination. However, supportive evidences are not commonly observed. Therefore, it is crucial to examine and clarify their argument in order to provide a precise prerequisite for further analysis.

2.Purposes of Research

Through distinguishing the difference among various combinations of organizational resources, managers can outline appropriate development strategies and choose suitable types of diversification in order to enter new business domains. Through the effective utilization of resources, companies can maximize the organizational value in general and fulfill business goals in particular. Based on the discussion on the research background, it is evident that, even though the resource-based view is gradually accepted and is integrated into the decision process, it still requires a more comprehensive framework for a concise explanation. Therefore, in order to improve the resource-based view, it is critical to provide more evidences for an in-depth examination.

Due to the above reasons, this research studies how the combination of organizational resources influences the selection of the type of diversification. When an enterprise faces a development opportunity, and consequently examines the viability of resources, some questions are commonly asked. 1. Why does the same type of resources lead in different development directions? 2. Does the interaction among different types of resources exist? 3. Do different types of resource configuration result in various selections of the type of diversification? Answers to the above questions will help us to clarify previous research perplexities and to establish a more solid foundation for further analyses. Therefore, the resource-based viewpoint not only becomes a more comprehensive framework in the field of strategy management, but also complements the related research.

3.Methodology

Based on the critical review of the previous research and interview data, organizational resource configuration does exist and affect a company's type of diversification. It is necessary to examine the relationship between the two. Hence, this research attempts to provide a comprehensive analysis of this research object.

An enterprise's development strategies have been widely analyzed in the previous research. Many influential variables are brought out, which cannot be covered and discussed in one paper. This research is mainly derived from the resource-based viewpoint. Analyzing an enterprise's organizational resources becomes the outset of this

research. This research further analyzes the selection of the type of development strategies after evaluating an enterprise's organizational capacity. It is the central concern of this paper to understand the utilization of business organizational resources in relation to different selections of the type of diversification. As a result, whether various types of resource configuration influence a company's selection of development strategies can be clarified.

3.1 Variables explanation

(1) Type of Resources

Through understanding scholars' categorization of different resources, it is found that, with different types of references, according to the nature of the resource content, resources can be divided into tangible resources, financial resources, intangible resources, capabilities...Etc. Hall (1992, 1993) further categorizes intangible resources into having capabilities (including regulatory and positional capabilities), and doing capabilities (including functional and cultural capabilities). Indeed, Hall's categorization covers most of the intangible and capability resources. Consequently, physical resources, financial resources, having capabilities and doing capabilities are regarded as the main resource types in this research.

(2) Resource Configuration

In the previous research, the conception of resource configuration is indicated without a proper definition. For this research, resource configuration is defined as the following: while processing diversification, an enterprise entails a resource structure consisting of one or a combination of various types of resources which are possessed by the enterprise and employed in development strategies.

Through the primary analysis of individual cases, it is found that the type of organizational resources actually affects a company's choice of development strategies. This paper also argues that, when a company faces the opportunity of diversification, what is evaluated is more than one type of resources. This viewpoint is further supported by the interview data and data analysis. Therefore, this research attempts to thoroughly explore and examine this aspect of resources management.

(3) Types of Diversification

Development strategies can be divided into three domains: the direction of diversification, types of diversification, and mode of diversification. However, through literature review, it is evident that most of the scholars in the past paid their attentions to types of diversification. That is, they focused on related/unrelated types of diversification. One of the research purposes scrutinizes different viewpoints presented by these scholars. It is also the purpose of this research to examine some new points of view. Therefore, like research in the past, the analysis of type of diversification is adopted in this paper. Types of diversification are divided into related and unrelated ones.

Davis and Duhaime (1992) think that, in strategy management, there are two ways to distinguish types of diversification: 1. Categorical measures 2. Continuous measures. This research employs continuous measures. The type of diversification is based on the R.O.C. Standard Industrial Classification [Research conducted outside Taiwan is often based on the SIC the Standard Industrial Classification]]. Consequently, this research adopts continuous measures as the type of diversification. That is, based on the R.O.C. Standard Industrial Classification, principle enterprises and industries of development strategies are categorized in order to estimate the type of diversification of development strategies.

Regarding the type of diversification in this research, interviewees first explain their principle businesses, titles of development strategies and principle products/services. Furthermore, according to the R.O.C. Standard Industrial Classification, the two-digit codes of principle businesses and development strategies are checked. If the codes are identical, it is regarded as the related type of diversification. Otherwise, it is the unrelated type.

3.2 Hypotheses

The original hypothesis has been supported by abundant research findings and based on the analysis of 36 development strategies of 7 Taiwanese enterprises. This research also provides a fruitful contribution to this

theoretical field, and it makes further pragmatic analysis viable. As a result, this research develops 7 hypotheses, which deserve further examination.

Physical resources are characterized by the organizational specialty. Most of the research supports the idea that, when a company possesses abundant physical or tangible resources, it intends to diversify itself in related areas. For instance, Chatterjee & Wernerfelt (1991), Montgomery & Hairharan (1991), Mahoney & Pandian (1992), and Quin (1997) all articulate the above phenomenon. Therefore, this research develops the first research hypothesis:

H1: When an enterprise possesses the configuration of physical resources, it tends to develop the related type of diversification.

Financial resources are more flexible and transferable. When a company enters a different business field where profits are promising, it tends to mobilize its extra capital to expand the business scale. This tendency is noticed and supported by the previous research, such as Ramanujam & Varadarajan (1989), Montgomery & Hairharan (1991), Mahoney & Panian (1992), Chatterjee (1986), and Chaterjee & Wernerfelt (1991)...Etc. Therefore, the second hypothesis of this research is developed:

H2: When an enterprise possesses the configuration of financial resources, it tends to develop the unrelated type of diversification.

When an enterprise possesses abundant having capabilities, such as patterns, brands, credibility, and long-term contracts, it attracts other companies for cooperation. For instance, since Company E excels in the computer-related industry, it attracts the aerospace division of a famous American company to establish a joint venture to develop the first Taiwanese computer company, which specializes in the hi-tech electronic products for the defense purpose. Therefore, the third hypothesis of this research is developed:

H3: When an enterprise possesses the configuration of having capabilities, it tends to develop the related type of diversification.

When an enterprise possesses the doing capabilities of intangible resources, it also attracts other companies' will for cooperation. For instance, since Company E has established a good network with distributors and has acquired abundant market information, it has become the major Taiwanese company, which specializes in marketing computer parts and peripheral products. Due to its outstanding technological capacities and abundant market knowledge, company G has entered a new business territory in cooperation with a Japanese-based enterprise. Therefore, the fourth hypothesis of this research is developed:

H4: When an enterprise possesses the configuration of doing capabilities, it tends to develop the unrelated type of diversification.

When an organization possesses both physical resources and having capabilities, it tends to enter the unrelated field of diversification. For instance, Company B possesses factories, lands, and reputation. This company cooperates with a Japanese-based enterprise to enter the field of shopping centers and department stores. In addition, Company H possesses tangible resources, patterns, brands, and reputation, and it is able to cooperate with other companies in establishing the retail network. Therefore, the fifth hypothesis of this research is developed:

H5: When an enterprise possesses the configuration of both physical resources and having capabilities, it tends to develop the unrelated type of diversification.

An enterprise is not inclined to any specific type of diversification when it is configured by both financial resources and having capabilities. In one way, Company A is authorized by a Japanese motor company as the dealer in the Taipei metropolitan region due to its outstanding financial capabilities, marketing experiences of imported automobiles, provision of automobile repairs and maintenance, and employees' professional capacities. In addition, Company B establishes a good reputation among customers and possesses extra capital at the same time; it cooperates with external companies to enter the field of the high-quality bakery. This field is also related to its original beverage field. In the other way, Company A also enters the construction field. By mobilizing extra capital and taking advantage of its original brand, Company H cooperates with an external company to construct the marketing network in the central part of Taiwan. Examples of Companies A and H indicate the unrelated type of

diversification. Therefore, when a company is configured by financial resources and having capabilities, the hypothesis is developed:

H6: When an enterprise possesses the configuration of both financial resources and having capabilities, there is no significant difference in choosing the related or unrelated type of diversification.

It is the most frequent case of development strategies that enterprises are configured by financial resources, having capabilities, and doing capabilities, and that they tend to take on a related type of diversification. When the development opportunity outside the country is foreseen, market expansion strategies would be proceeded by taking advantage of abundant financial resources, established brands, accumulated reputation, competent product-design capacities, excellent business networks, and employees' top professional capacities. For instance, Company H has accumulated abundant capital due to its outstanding profits in Taiwan. In addition, this company has possessed many patterns and product-design capacities. It has also established good business reputation. Furthermore, the production technology of this company is at a very mature stage. Its product quality and cost structure are not significantly different from its competitors. Therefore, this company develops a market-expansion strategy to enter markets in South East Asia and Mainland China. In addition, By taking advantage of accumulated financial resources, business reputation and employees' professional capacities in Taiwan, Company A has passed the rigorous examination of the cooperative Japanese-based automobile company in order to be the only authorized dealer in ChungKing, China. Therefore, the seventh hypothesis of this research is developed:

H7: When an enterprise possesses the configuration of financial resources, having capabilities and doing capabilities, it tends to develop the related type of diversification.

3.3 Research Objective

This research focuses on the relationship between the configuration of organizational resources and development strategy. A company's development strategy becomes the fundamental research unit in our study. Only one questionnaire is collected from one company. This is the means to avoid the analytical problem caused by the same company employing several development strategies with the same type of resources. In most of the case studies, researchers tend to choose large-scale companies as their research subject, since these companies can provide more abundant and integral data on their organizational development. In addition, organizational resources of large-scale companies are more precise and diversified, which helps the verification of the research objective. Thus, Top 500 large-scale companies in 1999 selected by China Credit Information Service are the main source of our research focus. All of the Top 500 companies in both fields of service and industry are selected as research respondents. After the confirmation of our research target, revised questionnaires are distributed to these companies. The questionnaires were completed and returned to us in pre-paid postage envelopes. 1,000 questionnaires were distributed, and 155 were returned for data analysis. The return rate is 15.5%. 152 samples are valid after discarding 3 incomplete ones. It is good that the return rate and the number of research sample are compatible with those of other research.

3.4 Method

Literature review shows that multiple regressions are the main tool to analyze issues in this research area. This technique is used by Chatterjee & Wernerfelt (1991), Farjoun (1998), Harrison et al. (1993), Hitt et al. (1997), Markides & Williamson (1996), Robins & Wiersema (1995), Russo & Fouts (1997), Tallman et al. (1996), and Weinzimmer et al. (1998). Thus, in this research, data is collected through asking closed-ended questions, and research hypothesis is verified through conducting factor analysis, cluster analysis, correlation analysis and multiple regressions.

3.5 Research Design and Pretest

Through reviewing literature and analyzing individual cases, we primarily operationalize each variable and measurement. Since there is no pre-existing survey available, we design our own pretest questionnaire through reviewing literature and through examining interview results. A pretest is conducted in order to ensure that the

questionnaire is suitable to our analytical concerns.

Research respondents' characteristics in the pretest are identical with those in the main test. That is, pretest respondents are also selected from China Credit Information Service's Top 500 companies. Pretest is conducted by both mailing questionnaires and by face-to-face interviews. 150 questionnaires are distributed, and 33 are returned. In addition to 30 questionnaires gathered from face-to-face encounters, 63 questionnaires in total are collected in the pretest for further analysis.

Based on the pretest, credibility coefficient is acceptable in measuring physical assets. In addition, the result of principal component analysis also acknowledges the attribution of one factor. Therefore, the suggested items are maintained. In financial asset measurement, the result of principal component analysis indicates that there is one factor whose value is bigger than 1.0. Thus, only one factor is taken into consideration. Furthermore, there is little difference between variation ratio of Factor 1 and that of Factor 2 since both of them are close to 50%. As a result, this research argues with Chatterjee (1986), Chatterjee & Wernfelt (1991), and Montgomery & Hairhanran (1991) those financial assets should be divided into internal and external ones in order to examine different hypotheses.

In addition, credibility coefficient is low in the 4th item of the having capability measurement and the 5th item of the doing capability measurement. Credibility coefficient is improved after these two items are discarded. As a result, it is necessary to exclude the above two items in the formal questionnaire.

3.6 Grouping Resource Configuration

In this research, two steps of cluster analysis are taken. The first step entails physical assets, internal financial resources, external financial resources, having capability and doing capability. These variables are clustered for Non-Hierarchical clustering. This research mainly adopts Pseudo t^2 as the final judgment of the best cluster. Based on the first step of analysis, we obtain an appropriate amount of groupings. The second step of clustering is followed. Cluster analysis is operated by FASTCLUS in SAS. The analytical result provides the mean of five variables including physical assets, internal financial resources, and external financial resources, having capability and doing capability. Thus, the configuration of each clustering is established. Resource configuration is established by integrating the absolute value of five variables and the relevant comparison between variables in each grouping. This integration makes researchers' final judgment possible.

152 valid samples are gathered in this research. The first step of cluster analysis suggests that the most ideal condition is when 8 subgroups are divided. Furthermore, in the second step of the analysis, the mean of each variable in each subgroup can be obtained. Suggested by Discriminant analysis and analysis of variance, the accuracy rate between subgroups is 97.52%. Through conducting analysis of variance, value P of five variables is close to 0. In other words, it is prominent to have $P < 0.01$ (See Table 1).

Table 1 ANOVA and Discriminant Analysis

Resource Item	ANOVA		Discriminant Analysis
	F Statistic	P-Value	
Physical asset	37.97	0.0001***	97.52%
Internal financial	45.89	0.0001***	
External financial	15.87	0.0001***	
Having capabilities	54.05	0.0001***	
Doing capabilities	58.97	0.0001***	

*** $P < 0.01$

Through analyzing mean in each subgroup, the mean of every variable in the 7th subgroup is negative, and mean in the 8th subgroup is low. Thus, this research is divided into 6 subgroups at the end. Each subgroup's resource configuration is shown in Table 2.

Table 2 The Type of Resource Configuration by Grouping

Cluster	Sample size	Type of Resource Configuration
1	27	Internal financial
2	12	External financial
3	18	Having capabilities
4	26	Physical asset + External financial
5	14	Physical asset + Doing capabilities
6	15	Internal financial + Having capabilities

4. Examining Hypotheses

This research is interested in the correlation between resource configuration and the type of organizational development. Thus, multiple regressions are employed in order to analyze whether the above variables are significantly correlated. There are six types of resource configuration in this research. Four types are significantly different given the consideration of the selection of development strategy. The follow discussion is also shown in Table 3:

Table 3 Regressions of Resource Configuration and the Type of Diversification

Resource Configuration	F statistic	P-value	Type of Diversification
Internal financial	5.5	0.0284**	Unrelated
External financial	2.372	0.158	
Having capabilities	#	#	Related
Physical asset + External financial	6.117	0.0216**	Related
Physical asset + Doing capabilities	3.644	0.0327**	Related
Internal financial + Having capabilities	0.67	0.4291	

All firm choice related diversification.

** P<0.05

- (1) After deleting three influential and negative samples, a company's resource configuration characterized by internal financial resources is correlated with the irrelevant multiple development strategy.
- (2) A company's resource configuration characterized by external financial resources is not correlated with any specific type of development strategy.
- (3) After deleting three influential and negative samples, a company's resource configuration characterized by having capability is correlated with the relevant multiple development strategy.
- (4) After deleting two influential and negative samples, a company's resource configuration characterized by both physical assets and external financial resource is correlated with the relevant multiple development strategy.
- (5) After deleting one negative sample, a company's resource configuration characterized by both physical assets and doing capability is correlated with the relevant multiple development strategy.
- (6) A company's resource configuration characterized by both internal financial resources and having capability is not significantly correlated with any specific type of development strategy.

Based on the above findings, hypotheses 1, 4, and 7 are not present in the obtained, clustered samples. Thus, these three types of resource configuration cannot be closely examined in this research. Further investigation is expected in the future. The other four hypotheses are examined and verified after an in-depth analysis. The positive result of this analysis shows the value of this research and the necessity to conduct further research on the basis of our analytical results.

5. Conclusions and Suggestion

5.1 Research Result

There is no absolute assertion on how a company's organizational resources influence the selection of development strategy. In this area, research in the past often discussed this relationship by examining one fixed type of resources. Nevertheless, the findings in the past were not consistent when the same type of resources is correlated with different types of development strategy. Thus, it is in question that a company only considers one

type of organizational resources while encountering multiple development opportunities. Black & Boal (1994), Itami & Roehl (1987), and Harrison et al. (1993) commonly suggest that organizational resources exist in combination of different types. Supportive empirical research of this theoretical argument is still in demand. Thus, this research examines and verifies several problematic from the viewpoint of resource configuration.

Consequently, this research obtains significant, statistical results by collecting samples and utilizing multiple regressions as a means to analyze the relationship between resource configuration and the selection of development types.

It is shown that a company's resources are multiply configured. Most of the companies choose to adopt relevant multiple strategies. The company configuration characterized by physical assets, such as point 1, 5, 6 and 7 in the above discussion, is more likely to develop the relevant multiple strategy. This is on account of the fact that physical assets more often belong to a company. Many researchers also support that companies as such develop in a relevant multiple direction. In addition to Chatterjee & Wernerfelt (1991), Montgomery & Hairharan (1991), Mahoney & Pandian (1992) and Qian (1997), we also agree on this viewpoint with our research results.

This research divides financial resources into external and internal ones. Based on the research result, companies take advantage of the flexible nature of financial resources and exercise internal financial resources as a means to expand their business scopes. This viewpoint is identical with those of researchers, including Ramanjuam & Varadarajan (1989), Montgomery & Hairharan (1991), Mahoney & Pandian (1992), Chatterjee (1986), Chatterjee & Wernerfelt (1991). Nevertheless, when the company scale is expanded, and when the relevant multiple strategy is undertaken, the acquisition of external financial resources becomes a crucial element in organizational development. This is a new finding derived from the division between external and internal financial resources. This finding also deserves further investigation.

This research divides invisible assets into doing and having capabilities. It is shown that a company characterized by having capability, such as patents, reputation, brands and client information is more likely to cooperate with other companies to develop the relevant multiple strategies.

In addition to the above findings, two factors are also singled out by this research.

(1) We argue with Hall (1992, 1993) that non-physical assets should be divided into having and doing capabilities. Researchers never make this division in the past. Our research results show that, the division and creation of these new types of resources is crucial in our empirical analysis. These two types of resources do not necessarily play identical roles in development strategy. Thus, the division between the two is contributive and necessary.

(2) Financial resources are sub-categorized by Hofer & Schendel (1978), Itami & Rohel (1987), Chatterjee (1986), Chatterjee & Wernerfelt (1991), Grant (1991), Montgomery & Hairhanran (1991) and Hung (1997). For instance, Chatterje, Chatterjee & Wernerfelt, Montgomery & Hairhanran further divide financial resources into internal and external ones. Our research findings show that it is suitable to divide these two types of resources for an in-depth analysis.

5.2 Research Limitation

Derived from the resource-base viewpoint, this research examines organizational resources and development types, and the correlation between the two. Nevertheless, in reality, when a company articulates their development strategies, what is considered is probably beyond five significant types of organizational resources suggested by this study (physical assets, internal and external financial resources, having and doing capabilities). Not every variable, which affects development strategy, is taken into consideration. Hence, the research result is limited to the mentioned variables. In addition, our finding is only suitable for the case of Top 500 companies. Thus, before applying our research results to other scale of companies, further investigation is still required.

In addition, data collected in this research is based on self-administered questionnaires, and is analyzed by employing a cross-sectional method. Thus, it is difficult to understand the causal relationship between the accumulation of resources and the type of development. Thus, the correlation between the two can only be found by implementing multiple regressions. The selection of research tools also limits the scope of research results.

5.3 Theoretical and Empirical Values

Our research results help to clarify theoretical articulation and empirical implementation. The following discussion aims at both theoretical construction and empirical utilization of the research results.

(1) This research explains why many research results in the past contradicted each other. This is on account of the fact that research in the past often focused on one type of resources. Our research analyzes resource configuration, instead of a single type of resources. Thus is the contradiction among different research resolved.

(2) Based on the empirical study, this research shows that different types of resources mutually affect each other. Thus, it is crucial to examine issues on organizational resources and development types from the viewpoint of resource configuration. In addition to solving research discrepancy, the empirical data we acquire also support some conclusion made in the past. Furthermore, new variables of resource configuration also provide us with new discoveries. For instance, it is more appropriate to divide financial resources into internal and external ones. These two new variables function differently according to different considerations of strategy. In addition, these two variables do not necessarily co-exist given the consideration of different types of resource configuration. Nor do they function in the same way in resource configuration. Thus, it is not suitable to assume the single and unified nature of financial resources. The above empirical discovery makes this research contributive to theoretical formulation. Finally, it is possible to consider external resources or resource-acquiring capability as non-physical ones since this capacity for acquiring external resources is the key to success.

(3) This research follows Hall's viewpoint (1992, 1993) that non-physical resources should be divided into having and doing capabilities. This theoretical viewpoint was not empirically examined in the past. Through interviewing companies, this research examines both accuracy and reliability of Hall's specified items of non-physical resources. Six measuring items individually compose having and doing capabilities. Through the empirical examination of these objective items, it is shown that non-physical resources play a key role in determining a company's formulation of development strategy. After the division, this research discovers that these two capabilities are not necessarily manifested in the same fashion. Thus, it indicates that it is necessary to divide non-physical resources into doing and having capabilities, and that it is unsuitable for future researchers to view non-physical resources as a single, unified variable. The above discovery makes this research contributive to resource configuration theory at large.

(4) Without developing performance indicators, this research cannot precisely suggest a certain type of development strategy in relation to a certain form of resource configuration. Nevertheless, this research makes an organization aware of the importance of resources while formulating development strategy. Our research findings are contributive to explaining an organization's behaviors and existence. Thus, an organization should introspect its resources, especially non-physical capability. This is a means to integrating the traditional emphasis on products and the resource-based one, to re-constructing the management logic, to broadening the management horizon, and to improving an organization's management capacity in reality.

5.4 Suggestion

This research aims at understanding the relationship among organizational resources, development type and the selection of development strategy. Limited by research resources and designs, there are some issues yet to be improved or verified. In addition, during our research processes, some valuable issues also catch our attention. Thus, the following suggestions are made:

(1) Developing the Measurement of Organizational Resources

Regarding organizational resources, a complete measurement of organizational resources has not been developed. Similar to terminology in psychology, organizational resources cannot be directly measured and quantified. Nevertheless, developing a complete measurement entails a crucial academic value. Although the resources measurement developed in this research reaches a certain degree of accuracy and reliability, it is still a primary design. A high-quality measurement should be developed under a strict theoretical examination and repetitive empirical inspection. Developing a precise measurement for organizational resources becomes an important research direction in the future.

(2) Using Longitudinal Survey

Like other research in the past, this study employs the self-administrated, cross-sectional survey. As a result, this research method cannot directly explain whether organizational resources determine the selection of development strategy or vice versa. That is, longitudinal questions cannot be answered by this research. This becomes the limitation of our research design. Researchers in the future can aim at this design weakness in providing a better and complete means to data collection. Thus, the relationship between organizational resources and development strategy can be accurately understood. It is also viable to implement multi-classification analysis for further understanding of the relationship between organizational resources and development strategy.

(3) Investigating Specific Industries

This research does not classify different industries. Since each industry may differ significantly, it is questionable whether our research findings are universally applicable to every industry. Thus, researchers in the future can discuss this issue by focusing on an individual industry. Thus can research results be more precise and applicable.

(4) Developing Compatibility with the Output-Based Viewpoint

Recently, the resource-based viewpoint is commonly adopted. Many researchers have devoted themselves to theoretical argument or empirical examination of resource nature, characteristic, the relationship between resources and development strategy, and the correlation between resources and compatibility. An in-depth and complete understanding of organizational management is possible by integrating the traditional analysis of management strategy and the resource-based examination of the organizational structure. That is, through integrating these two viewpoints, theoretical research in the future can become more applicable in an empirical sense.

Reference

- Black, J. A. and K. B. Boal(1994), "Strategy Resources: Traits, configuration and Paths to Sustainable Competitive Advantage", *Strategic Management Journal*, Vol.15, Sum. pp.131-148.
- Chatterjee, S. and B. Wernerfelt (1991), *The Link between Resources and Type of Diversification: Theory and Evidence*.
- Hall, R. (1992), "The Strategic Analysis of Intangible Resources", *Strategic Management Journal*, Vol.13, Feb., pp.135-144.
- Hall, R. (1993), "A Framework Linking Intangible Resource & Capabilities to Sustainable Competitive Advantage", *Strategic Management Journal*, Vol.14, Nov., pp.607-618.
- Harrison, J. S., E. H. Hall, & R. Nargundkar (1993), "Resource Allocation as An Outcropping of Strategic Consistency: Performance Implications", *Academy of Management Journal*, Vol.36 (5), pp.1026-1051.
- Hitt M. A., R. E. Hoskisson and H. Kim (1997), "International Diversification: Effects on Innovation and Firm Performance in Product-Diversified Firms", *Academy of Management Journal*, Vol.40, No.4, pp, 767-798.
- Itami, H. and T. Roehl (1987), *Mobilizing Invisible Assets*, Harvard University Press, Cambridge, MA.
- Mahoney, J. T. and J. R. Pandian (1992), "The resource-Based View Within the Conversation of Strategic Management", *Strategic Management Journal*, Vol.13, pp.363-380.
- Montgomery, C. A. (1982), "The Measurement of Firm Diversification: Some New Empirical Evidence", *Academy of Management Journal*, Vol.25, Feb. pp.299-307.
- Montgomery, C. A. and S. Hariharan (1991), "Diversified Expansion by Large Established Firms", *Journal of Economic Behavior & Organization*, Vol.15, Iss.1, Jan. pp.71-89.
- Penrose, E. T. (1959), *The Theory of the Growth of the Firm*, John Wiley, New York.
- Quin, G. (1997), "Assessing Product-market Diversification of U.S. Firms", *Management International Review*, Vol.37, pp.127-149.
- Ramanujam, V. & P., Varadarajan(1989), "Research on Corporate Diversification: A Synthesis", *Strategic Management Journal*, Oct. Pp.523-551.