

# A Study on Determinants of Business Environment (Technological Strength, Competitive Strength, Government Support, and Financial Support)

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## Abstract

Corporate survival and growth depend on corporate adaptation and addressing challenges of environmental changes. In an open system, all activities of an entity take place in constant interaction with the internal and external environments. Environmental changes pose a threat to the survival of companies and also provide opportunities for growth. Changes in the environment surrounding businesses give profound influence on the establishment of management strategies and the achievement of business performance. The business environment is changing rapidly as the needs of customers increase and various technological innovations are commercialized. To meet these changes, an entity needs to develop an appropriate management strategy. In order to secure competitiveness in a complex market environment, various control systems must also be established.

In this study, the prior study of the management environment, management strategy, and business performance was reviewed and empirical research was carried out. Based on prior research, technological strength, competitive strength, government support policy and financial support were adopted as factors for the business environment. The collected data were analyzed using the default statistics of SPSS 22.0. Smart PLS 2.0 (partial least squares) using a structured formula. The results of study are shown. First, the management environment (technological strength, competitive strength, government support policy, and financial support) had a significant impact on management strategy. Second, management strategies had a significant impact on business performance. This means that in order for an entity to settle in the market, it is essential to establish a discriminatory management strategy in various business environments. To measure an entity's performance, active use of its management strategy is necessary.

**Keywords:** *Business environment, Technological strength, Competitive strength, Government support policy, Financial support policy*

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## 1. INTRODUCTION

Companies need to utilize the changed environment to achieve and maintain their unique competitive advantage in the global market. Changes in the market environment can help companies secure more opportunities. As the business environment changes, management strategies are diversifying and changing. In an open

system, all corporate activities are conducted in constant interaction with the internal and external environment. Environmental changes pose a threat to the survival of companies and also provide opportunities for growth. Changes in the environment surrounding businesses give profound influence on the establishment of management strategies and the achievement of management

performance.

Companies should look for changes in management strategies to adapt to environmental changes. Companies should consider a holistic approach through organizational change. Various efforts and investments are made to combine environmental changes with the internal elements of the organization, taking into account overall factors including market conditions, strategies, organizational structures and information systems. The entity should carefully establish its management strategy in order to survive in the market. To secure competitiveness in a complex environment, proper management strategies and diverse systems must be established. Management strategies should be designed in response to convert management markets. The information provided in the business environment is used for various purposes of business strategy (Miles et al. 1974). To date, there have been various studies that emphasize the importance of business strategy for the success of a company (Porter 1985). Empirical analysis shows that companies that implement management strategies to cope with converting of business markets exhibit outstanding management (Zajac et al. 2002, Joseoh 2012).

The purpose of enquiry is to analyze the influence of management circumstance factors on the diversifying of management strategy and the increasing of business performance. As a result of reviewing prior research, many studies focused on technological strength and competitive strength in the business environment and organizational performance, government support policy and financial support, focusing on the diversifying of management strategy and the increasing of business performance. Therefore, this study conducted an empirical analysis as reviewing earlier studies on management markets, the diversifying of management strategy and the increasing of business performance. Technological strength, competitive strength, government support policy and financial support were adopted like factors of the business environment. In this study, management performance was divided into nonfinancial performances and used as a single variable. The purpose of this study is as follows. First, the purpose of the empirical analysis is to analyze whether the management environment gives significant influence on the diversifying of management strategy, and second, it is to analyze

whether the increasing of management strategy give significant effect on the increasing of management performance.

## **2. THEORETICAL BACKGROUND**

### **2.1. TECHNOLOGICAL STRENGTH AND COMPETITIVE STRENGTH**

Technology is the key to organizational success. The development of technology is inevitable even in an industry with low technical skills. Technological innovation brings economic results to the enterprise and is an important issue in performance management (Bhadoria 2015). Technological innovation includes the development of new products in the high-tech industry, and involves improving products, logistics, distribution and marketing capabilities in all industries (Bronwyn and Rosenberg 2010). In this respect, technology intensity is summarized as research and development and commercialization of the product developed. topical researches have defined technological advance as technological strength from a broad perception, including technology expansion and expertise commercialization (Batrol and Martin 2003). Efforts are being made to systematize it (Lee and Jeong 2010). Technology commercialization includes all aspects of idea extraction, new technology development, production of new products through technology, and marketing.

Competitive strength includes the number of competitors, the launch of new products, frequency of technological changes, and ease of entry into the industry. The relationship between competitive strength and business performance was looked at in a number of studies (Xiaoqing et al. 2019). In general, increased competition has improved organizational performance, and positive relationships have emerged between organizations. If market competition gets fiercer, the intention of developing effective management strategies to maintain competitiveness grows. The efficiency of a management strategy provides a positive explanation for the relationship between competitiveness and organizational performance. In a study on the localization strategies of South Korean companies entering the North American market, whether the business environment (technological strength, competitive strength, market expansion and marketplace instability) plays

a position as a variable in their performance was studied (Lee et al. 2015, Chandler and Hanks 1993).

## 2.2. GOVERNMENT SUPPORT POLICY AND FINANCIAL SUPPORT

The activities from small and medium enterprises are left to the general trend of market. It is complicated for SMEs to stay alive naturally in market environment. The government support policy helps them with diverse policies for development and expansion. The government provides a multiplicity of support to facilitate the reorganization of SMEs and to improve their manufacturing competitiveness (Shon and Kim 2014). Government support policy includes management safety support, start-up sustain and management incubator support (Hwang et al. 2003). Because the resources of an enterprise are finite, the success or failure of management activities depends on the capabilities of internal resources. In resource-based theory, the efficient use of finite resources is critical. Therefore, the ability to use internal resources, such as financial assets, facility assets, trademarks, technical skills, marketing capabilities, and organizational operations, determines whether a competitive advantage is acquired. Human and physical resources within a company are key factors for securing a competitive advantage and achieving management performance (Mungunzul and Chang 2016). Whether to secure outside funds is very important for SMEs that lack internal finance. The types of government-funded funds that Korea's SMEs can receive include start-up funds, purchase of facilities and raw materials, and establishment of factories. To this end, the government or public institutions provide part of the expenses to SMEs free of charge, such as loans entrusted to banks, technology development costs, education and training costs, and overseas exhibitions.

## 2.3. MANAGEMENT STRATEGY

Depending on the management strategy pursued by the company, there are differences in views on future uncertainties. The management strategy will have a different impact on the performance of the company. It should make bold human and material investments from a future-oriented perspective and actively utilize research and advertising costs. For leading companies, the propensity of a trusted

manager can have a helpful result on future act (Park and Hahm 2016). A management strategy can be defined as an important decision to allocate management resources and to secure and maintain a firm's competitive advantage. Chandler is explained that the definition of management strategy is the choice of operating procedures and resource allocation necessary to determine a company's long-term goals and achieve those goals (Chandler and Hanks 1993). A company's management strategy is defined as "a plan that integrates the company's main objectives, policies and activities into one." Management strategy is defined as a kind of comprehensive and integrated plan designed to attain the basic goals of corporate. It is defined the ability of an enterprise to maintain a profitable position among many factors that determine its competitive advantage within the industry (Porter 2014). Competitive strategies focus on the analysis of the impact of the industrial structure on corporate behavior and on the performance of management. Factors such as competitors, suppliers, buyers, new entrants and proxies should be considered in order to add permanent aggressive benefit within the existing industry.

## 2.4. BUSINESS PERFORMANCE

Business performance can be defined in a variety of ways, such as the productivity or profitability of an enterprise, the achievement of an organization's goals, and the organizational capabilities within and outside an enterprise. It is generally a process of measuring the efficiency and effectiveness of management activities, and can be divided into financial and nonfinancial performance as a result of management activities. Business performance measures typically focus on financial performance, such as net profit, median profit, return on investment, sales and market share. Financial performance is limited in not accurately reflecting the intangible value of a company. Nonfinancial performance is subjective and therefore not suitable for short-term management and indicators because of its wide range of measurement (purchaser viewpoint, inside procedure viewpoint, and education and expansion viewpoint). However, financial problems can be remedied because they are measured on a long-term and diverse basis (Lee and Kim 2019).

Business performance is assessed and measured based on the organization's vision and achievement

of goals. In the short term, it can be seen as strengthening financial performance, and in the long term, strengthening market dominance. Such measures imply a process of improving organizational efficiency with the introduction of competition principles and quantifying the effectiveness of management activities. Previous studies have used various financial indicators to measure the financial performance of firms. The growth rate of sales, return on investment, total assets, operating profit ratio, cost of sales and net profit ratio are the variables commonly used to measure financial performance.

### 3. RESEARCH DESIGN

#### 3.1. RESEARCH MODEL

This paper focuses on analyzing the relationship of the business environment (technological strength, competitive strength, government support policy, and financial support) to the diversifying of management strategy and the increasing of business performance. Based on the previous research, the research model is presented in [Fig. 1].

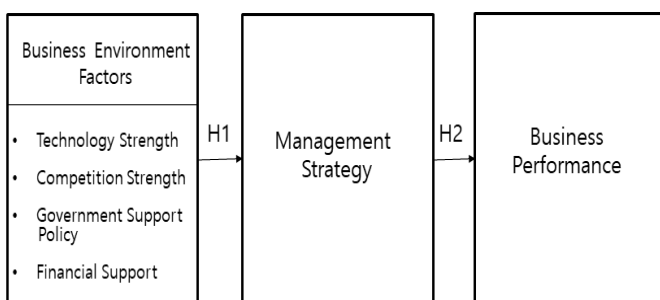


Fig. 1 Research Model

### 3.2. RESEARCH HYPOTHESIS

#### 3.2.1. HYPOTHESIS ON BUSINESS ENVIRONMENT AND MANAGEMENT STRATEGY

The business environment is divided into four categories: technological strength, competitive strength, government support policy, and financial support. There are various studies on the diversifying of management strategy and the increasing of business performance (Miles et al. 1974, Porter 1985). Based on the existing research, the following hypotheses were established:

Hypothesis 1: The business environment will give significant influence on the diversifying of management strategy.

H1-1: Technological strength will give significant impact on the diversifying of management strategy.

H1-2: Competitive strength will give significant impact on the diversifying of management strategy.

H1-3: Government support policy will give significant impact on the diversifying of management strategy.

H1-4: Financial support will give significant impact on the diversifying of management strategy.

#### 3.2.2 HYPOTHESIS ON MANAGEMENT STRATEGY AND BUSINESS PERFORMANCE

A management strategy is a comprehensive and integrated objective that provides guidance for determining the content and direction of a company's activities to achieve its objectives (Chandler and Hanks 1993). A management strategy is a strategic decision that determines a company's activities. Strategic decision making should be made through the harmony between the internal and external environments of the enterprise. After identifying the opportunity and threat elements of the business activities by analyzing and predicting the external environment, the internal environment is analyzed and evaluated to identify the strengths and weaknesses of the company (Lee and Kim 2019). An enterprise must choose an opportunity that can leverage its strengths, compensate for its weaknesses, and also choose a strategic alternative to avoid threats. Based on previous studies, the following hypotheses were established.

Hypothesis 2: The diversifying of management strategy will give significant impact on the increasing of business performance.

### 3.3. EMPIRICAL ANALYSIS AND RESULTS

Data Collection and Sample Characteristics: The survey was conducted on 200 people over the age of 20 working for companies. The survey was conducted for 45 days from July 20, 2018. A



totality of 200 questionnaires was spread for study. 177 respondents without inadequate respondents were utilized in order to data investigation. Data shows the results that men is more than women (91.8%). The figure was 47.7% for those aged 50 or older. About 42% of the respondents work in the manufacturing sector, with 30.6% at or above the level of managers. The respondents' monthly income was between 4 million won and 5 million won (33.5%).

Data Analysis: SPSS 22.0 for the calculating of basic statistical package was utilized to analysis data. Smart PLS 2.0 was utilized for hypothesis testing. In general, when Cronbach's  $\alpha$  coefficient was greater than 0.7, the reliability was high. Validity was divided into concentration validity and discriminant validity. Concentration relevance takes into account loading values, composite reliability (CR), and average variance extracted (AVE). In general, the reliability of measurement variables is regarded to have been secured when the Cronbach's  $\alpha$  coefficient is 0.6 or higher, the CR value is 0.7 or higher, or the AVE value is 0.5 or higher. The discriminant validity should be higher than all correlation coefficients with square root AVE. [Table 1] and [Table 2] show that the questionnaire has reliability, concentration validity and discriminant validity.

Table I. Reliability and Internal Consistency

Variables	Factor Loading	AVE	C. R.	Cronbach's $\alpha$
Technology Strength	0.822	0.590	0.821	0.745
	0.778			
	0.781			
Competition Strength	0.799	0.654	0.867	0.832
	0.848			
	0.813			
	0.781			
Government Support Policy	0.811	0.644	0.843	0.812
	0.734			
	0.789			
	0.767			
Financial support	0.723	0.611	0.829	0.721
	0.689			
	0.811			
Management strategy	0.887	0.634	0.842	0.756
	0.834			
	0.776			
Business	0.844	0.587	0.835	0.745

Performance	0.898
	0.712

Table II. Correlation and Discriminant Validity

Variables	AVE	1	2	3	4	5	6
Technology Strength	0.59	<b>0.77</b>					
Competition Strength	0.65	0.49	<b>0.80</b>				
Government Support Policy	0.65	0.32	0.51	<b>0.80</b>			
Financial support	0.58	0.45	0.50	0.41	<b>0.76</b>		
Management strategy	0.67	0.50	0.56	0.50	0.49	<b>0.82</b>	
Business Performance	0.58	0.54	0.51	0.44	0.43	0.50	0.76

### 3.4. VERIFICATION OF RESEARCH MODEL

The hypothesis was verified using Smart PLS 2.0. The path factor and determinant ( $R^2$ ) values were derived. The goodness of fit can be indicated as "high" when the  $R^2$  value is 0.26 or higher, as "moderate" when the  $R^2$  value is 0.26–0.13, and as "low" when the  $R^2$  value is 0.13 or lower (Cohen 1998). [Figure 2] presents the upper suitability of the determinant values in the management strategy (0.419), but the determinant values in the business performance (0.191) show moderate suitability.



Fig. 2 Verification of Research Model

Hypothesis 1 shows that the business environment gives significant influence on the diversifying of management strategy. In other words, technological strength, competitive strength, government support policy, and financial support give significant influence on the diversifying of management strategy. In H1-1, the technological strength was shown to give significant

influence on the diversifying of management strategy ( $\beta=0.257$ ,  $t=3.049$ ,  $p<0.05$ ). Technological strength means new technology changes, difficulties in investing in technology, and good products. In H1-2 it was shown that competitive strength to give significant influence on the diversifying of management strategy ( $\beta=0.269$ ,  $t=2.549$  and  $p<0.05$ ). Competitive strength means the plenty of competitors, rivalry in the marketplace, outside threat factors and difficulties in price struggle. In H1-3, it was shown that government support policy to give significant influence on the diversifying of management strategy ( $\beta=0.242$ ,  $t=2.831$ ,  $p<0.05$ ). Government support policy means obvious and reasonable work of supporting agencies, different sustain projects, simple admission to foreign operate and related data, and lawful maintain of supporting company. Hypothesis 1–4 shows that financial support give significant influence on the diversifying of management strategy ( $\beta=0.198$ ,  $t=2.319$ ,  $p<0.05$ ). Financial support means management support funds, the possibility of management support funds, bank loans. Hypothesis 2 shows that the diversifying of management strategy give significant influence on the increasing of business performance ( $\beta=0.243$ ,  $t=2.328$ ,  $p<0.05$ ). Management strategy means promotion of advertising/sales, expansion of market share, analysis of competitive areas and strategies.

#### 4. CONCLUSION

In this study, we identified the relationship between the influence of the business environment on the diversifying of management strategy, and the increasing of business performance through an empirical study. Demonstrative study has shown that a company's business market plays a central position to improve its business performance.

The outcome of these observed lessons can be summarized. First, the business environment (technological strength, competitive strength, government support policy, and financial support) give significant influence on the diversifying of management strategy. Hypothesis 1 was adopted. Second, the diversifying of management strategy gives significant influence on the increasing of business performance. Hypothesis 2 was adopted.

Focusing on these results, this study suggests the following implications. First, business environment factors such as technological strength, competitive strength, government support policy, financial support are influenced on diversifying of management strategy. This means that it is essential for a company to establish a discriminatory management strategy in various business environments in order to settle in the market. Active use of management strategy is needed to measure the development and performance of a company. Because the business environment (technology change,

market competition) changes rapidly, continuous monitoring of the market is needed. In order to improve business performance, a Competitive Strategy is needed to understand the management strategy accurately and respond actively to the market. An entity must focus on its management strategy. This means that companies should use various strategies to strive to gain a competitive advantage. Second, management strategy has affected business performance. The environmental factors of a company cause uncertainty in its management performance. Uncertainty refers to a condition in which management does not have sufficient information to understand the environment and to predict the needs and changes of the environment. The management strategy to cope with such environmental uncertainty should be compatible with the company by adapting it to the environment or by affecting the environment. In other words, managers must effectively manage environmental uncertainties. Strategies for adapting to changes in the environment should include collecting information with market research to ensure a smooth relationship with customers or suppliers. In addition, efforts should be made to generate profits for the company through contact with customers or transactions. Strategies that affect the environment and are compatible with companies should create new demand for corporate products by enhancing consumers' image of companies through advertising or promotional activities. Efforts should be made to change the environmental factors that cause problems with activities that affect government legislation or regulation. In this study, we looked at the relationship between the influence of management environment factors on the diversifying of management strategy and the increasing of business performance.

In this study, we presented a research model for the business environment, management strategy, and business performance of a company and it is meaningful to verify the results of the research by analyzing it empirically.

#### REFERENCES

- [1] Bartol, K. M. and Martin, D. C. "Leadership and the Glass Ceiling: Gender and Ethnic Group Influences on Lender Behaviors at Middle and Executive Managerial Levels." *Journal of Leadership and Organization Studies* 9.3 (2003): 8-19.
- [2] Bhadoria, R. S. "Performance Analysis for Enterprise Service Bus in SOA System." *International Journal of IT-based Business Strategy and Management* 1.1 (2015): 11-18.
- [3] Bronwyn, B. H. and Rosenberg, N. *Handbook of the Economic of Innovation*, Elsevier, London, 2010.

- [4] Chandler, G. N. and Hanks, S. "Measuring the performance of emerging businesses: A validation study." *Journal of Business venturing* 8.5 (1993): 391-408.
- [5] Cho, J. "A Study on the Cultural Characteristics of Korean and Chinese Languages." *Asia-Pacific Journal of Convergent Research Interchange*, 5(1): 47-56.
- [6] Cohen, J. 1998. *Statistical Power Analysis for the Behavioral Science* (2nd ed.), Hillside, New Jersey: Lawrence Erlbaum, 2019.
- [7] Hwang, I. Han, K. and Lee, S. "The Belatedness of Governmental Support and Organizational Factors of SMEs." *Small Business Studies*, 25.4 (2003): 113-132.
- [8] Joseoh, K. "Ubiquitous Healthcare: Healthcare Systems and Applications enabled by Mobile and Wireless." *Journal of Convergence* 3.2 (2012): 1-17.
- [9] Kim, J. and Kim, N. "KOSDAQ IPO firms' advertising expenditures and stock returns." *Asia-Pacific Journal of Convergent Research Interchange*, 4.1 (2018): 1-4.
- [10] Kim, J. and Shariff, N. "A Continuous Bursty Topic Discovery from Twitter through Topic Sketch." *Asia-Pacific Journal of Convergent Research Interchange*, 2.2 (2016): 1-8.
- [11] Kim, J. and Shariff, N. "A Continuous Bursty Topic Discovery from Twitter through Topic Sketch." *Asia-Pacific Journal of Convergent Research Interchange*, 2.2 (2016): 1-8.
- [12] Kim, N. "Knowledge Information Firm's Corporate Divestitures." *Asia-Pacific Journal of Convergent Research Interchange*, 4.1 (2018): 63-70.
- [13] Lee, D. and Jeong, L. "A Study on the Effect of Technological Innovation Capability and Technology Commercialization Capability on Business Performance in SMEs of Korea." *Asia Pacific Journal of Small Business*, 32.1 (2010): 65-87.
- [14] Lee, J. and Kim, H. "An Empirical Study of Changing the Business Environment and Increasing the Business Performance." *International Journal of Business Policy and Strategy Management*, 6.1 (2019): 43-48.
- [15] Lee, S. and Kim, H. "The Impact of Business Environments and the Technology Management Capability on Firm Performance." *Journal of Vocational Rehabilitation* 37.2 (2015): 21-35.
- [16] Miles, R. E. Snow, C. C. and Pfeffer, J. "Organization-Environment: Concepts and Issue." *Industrial Relation*, 13.3 (1974): 244-264.
- [17] Mungunzul, E. and Chang, T. "The Determinants of Foreign Direct Investment in Mongolian Economic Growth." *International Journal of IT-based Management for Smart Business*, 3.1 (2016): 9-14.
- [18] Na, J. "Optimization in Cooperative Spectrum Sensing." *Asia-Pacific Journal of Convergent Research Interchange* 3.1 (2017): 19-31.
- [19] Park, H. and Hahm, S. "A study on Leaders' voice and that Influences." *International Journal of Business Policy and Strategy Management* 3.1 (2016): 41-46.
- [20] Porter, M. E. *Competitive Advantage: Techniques for Analyzing Industries and Competitors*. New York. The Free Press, 1985.
- [21] Reddy, B. S. "Data Structure in Miscillinous Environments." *International Journal of IT-based Business Strategy and Management*, 3.1 (2017): 1-6.
- [22] Shon, J. and Kim, B. "Design and Implementation of a Content Model for m-Learning." *Journal of Information Processing Systems*, 10.4 (2014): 543-554.
- [23] Feng, X.Cao, Y. and Li, Y. "Medical Service Platform and Internet+ Medicine Innovation Construction." *International Journal of Advanced Nursing Education and Research* 4.1 (2019): 25-30.
- [24] Zajac, E. J. Matthew, S. K. and Rudi, K. "Modeling the Dynamic of Strategic Fit: A Normative Approach to Strategic Change." *Strategic Management Journal of Management Studies* 25.1 (2002):105-120.