

# A Study on Moderating Effects of Autonomy on Performance of MNC Subsidiaries in Korea\*

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## ABSTRACT

This study seeks to find out the determinants of subsidiary performance. In addition, moderating effect of autonomy on the relationship between subsidiary competence, subsidiary relationship and subsidiary configurational focus, and subsidiary performance. In studying the moderating effect of autonomy on subsidiary performance, the results will give invaluable insights to foreign subsidiaries in Korea to better compete in competitive Korean market. The results of empirical study showed that subsidiary with higher level of interaction with its intra-MNC network has higher level of performance. Thus, active interaction with headquarter and its affiliates will lead to better performance. Subsidiary with higher level of competence has higher level of performance. Thus, subsidiary should attain higher level of competence to better compete in Korea. Subsidiary autonomy has moderating effect on the relationship between configurational focus and performance. Thus, optimal MNC subsidiary configuration and attainment of subsidiary autonomy is needed to secure competitiveness in Korean market.

**Key Words** : Autonomy, Subsidiary, Competence, Relationship, Configurational Focus

\* This paper is founded on Ph.D Dissertation of Jae Har Yu

## I . Introduction

Efficient management of a subsidiary of a multinational corporation(MNC) is needed to ensure sustainability and growth in the host market environment. In addition, the performance of a subsidiary not only influences its position and role in the MNC network, but also contribute to the overall growth of MNC.

According to the internationalization process model a firm often initiates its internationalization process by exporting to a foreign country and then eventually committing more and more resources by setting up a foreign subsidiary. Since an MNC sets up a subsidiary in an environment different from home country and controls and coordinates its activities, efficient delegation of autonomy is one of the factors that must be considered by the headquarters. Parent company's delegation of subsidiary autonomy can be an issue of centralization or decentralization strategy. However, there will be a degree of subsidiary autonomy that can lead to performance maximization of a subsidiary.

Extant studies on subsidiary autonomy largely dealt with autonomy in terms of headquarter-subsidiary relationship and lacks studies on the moderating role autonomy has on performance. Even with technological edge, advanced marketing tools, and abundant financial resources, MNC subsidiaries often fail to make a mark in Korean market. Why foreign invested firms not faring well? They often indiscriminately implement home success formula in Korea, decisions made in headquarters, has lack of cultural understanding and, furthermore, underestimating Korean market. Upon entering Korean market, MNCs had beliefs that they have enough competitive advantage to offset opportunity costs and foreign costs.

However, MNCs often failed to create competitive advantage that can offset foreign costs. In a unique market environment as Korea is, MNCs can not offset foreign costs with decisions made in headquarters. Korean market is a tough market to crack and can be characterized as a market with consumers' tendency to showoff, consumers with curiosity, a fast-changing market of highly competitive atmosphere and consumers possessing trend sensitive collectivist tendencies. Due to such nature of Korean market, Korean market often acts as a test-bed for foreign companies to test their product to fine tune their products prior to their worldwide release. Korean Standard is now becoming a Global Standard rather than Global Standard becoming a Korean Standard. The purpose of this study is to first, find out determinants of performance of MNC subsidiaries in Korea. Second, to find out whether autonomy has moderating effect on performance of subsidiaries.

## II. Literature Review and Hypothesis

### 1. Configurational focus and Performance

To reap the profit from investing in a foreign country, subsidiary should have autonomy in new product development, process development and means to establish market. The autonomy of a subsidiary is dependent on organizational structure of MNC and MNC strategy(Rugman & Douglas, 1996). Subsidiary autonomy is dependent on control structure and organization structure. The role subsidiary takes can be assigned by the parent firm but it can also be determined by the activities a subsidiary undertakes(Birkinshaw, 1996). Parent firm centralizes decision-making on strategic issues but decentralizes day-to-day operational issues(Hedlund, 1981). Among marketing, production, finance and human resources activities of a subsidiary, subsidiary enjoys more autonomy in marketing(Garnier et al, 1979). MNC centralizes network integration issues and decentralizes locally responsive issues (Edwards et al, 2002). Financial issues are deemed integration issue, and marketing and personnel issues are deemed decentralization issues. Thus, marketing and personnel autonomy is delegated to the subsidiary. When delegated with regional mandate, subsidiary then attains more autonomy(Birkinshaw, 1996; Roth, 1992).

Firms decentralize to meets diverse industry standard requirements and localized consumer demand and to cope difficulty in managing global organization(Morrison et al., 1991). And firms also deter wasting of subsidiary competence through global strategy(Morrison et al., 1991). Decentralization enables prompt response to local opportunities and threats(Birkinshaw & Hood, 1998). When the parent firm has better information on achieving its global goal, then the parent firm gets the decision-making power. Configuration focus, in this paper, refers to whether the subsidiary operation is deemed to be globally integrated or locally responsive subsidiary within the MNC network. Recent studies have shown that subsidiary autonomy is associated with positive performance effects(Tran et al., 2010) and that there is a negative relationship between lower autonomy and production activities(Gammelgaard et al., 2012). To find out the relationship between the configurational focus and subsidiary performance, following hypothesis can be drawn.

*Hypothesis 1 : Configurational focus of subsidiary has positive effect on subsidiary performance.*

## 2. Subsidiary relationship and Performance

All the constituents in a network want to have more control over their resources and their behavior. Subsidiary that exchange physical resource, competence and knowledge with its partners can gain base for power depending on the level of embeddedness(Andersson & Pahlberg, 1997). Power of a constituent has is inversely related to dependency on other constituent(Salancik, 1986). Degree of parent firm's control on its subsidiary rises as the subsidiary is embedded in the corporate network comprised of parent firm and other subsidiaries(Andersson & Forsgren, 2000, Lee, 2014).

Knowledge exchange and transfer within a intra-MNC network will depend on degree of interaction between subsidiary and headquarter and between subsidiary and other subsidiaries. Multinational firms must transfer knowledge between the parent and subsidiary without exposing that knowledge to competitors(Kogut & Zander, 1992). Knowledge resources such as marketing skills and technological knowledge(Chatterjee & Wernerfelt, 1991) can be transferred between the parent and subsidiaries. Such transfer of knowledge enhance the competitiveness and performance of a subsidiary. To find out the relationship between the subsidiary relationship and subsidiary performance, following hypothesis can be induced.

*Hypothesis 2 : Subsidiary relationship has positive effect on subsidiary performance.*

## 3. Subsidiary competence and Performance

Competence can be a differentiating factor that can set one from others when responding to environmental and competitive challenges.(Lenoard-Barton, 1992). There are anecdotal evidence of subsidiaries that have independently developed new products which were results of subsidiary initiatives(Rugman & Verbeke, 2001). Subsidiary initiatives relies on motives and the resources on hand. According to Brass and Burkhardt(1992), dependency on other organization is inversely related to the level of resources and competence one has. Possession of competence will lead to less dependence on parent firm and autonomy in its behavior. Degree of dependency of an organization on another is inversely related to the degree of resources and competence an organization has. Dependency is caused by lack of resources and when a subsidiary has a unique resource and competence development ability, then it will be less dependent on the parent company and its

degree of autonomy will increase (Brass & Burkhardt, 1992). There is a positive relationship between subsidiary's dependence on parent firm and degree of parental control (Birkinshaw & Hood, 1998). For a subsidiary to sustain itself, it needs to grow and growth is dependent on subsidiary's specific advantage.

According to study results showing positive relationship between the experience subsidiary has in a host country and autonomy, it is possible to infer that there is a positive relationship between subsidiary experience, competence and autonomy. For a subsidiary to sustain itself, it needs to grow and growth is dependent on subsidiary's specific advantage. Subsidiary specific advantage refers to advantage in production related asset and/or organizational competence where it can coordinate and control MNC asset (Rugman & Verbeke, 2001). Corporate competence results in important output for growth and survival (Winter, 2000). Competence creates comparative advantage for firms (Aaker, 1989). To find out whether subsidiary competence leads to better subsidiary performance, following hypotheses can be presented.

*Hypothesis 3 : Subsidiary competence has positive effect on subsidiary performance.*

#### **4. Autonomy and Performance**

Decision-making autonomy appears to be a strategic dimension that has close linkage with the MNC affiliate's characteristics, role and policies (Taggart & Hood, 1999). There are many facets of subsidiary where autonomy exerts its influence. Numerous extant studies have identified areas where subsidiary autonomy play significant roles. Subsidiary autonomy is one factor in a collection of forces that drives MNC's evolution (Birkinshaw & Hood, 1998; Kim and Bang, 2013). There has been conflicting results on whether autonomy will lead to better subsidiary performance. Korean market is very demanding market for foreign companies. Operational issues such as marketing needs to be responsive to local demand. The more autonomy a subsidiary has, better performance one will likely achieve. Financial issues are the most strategic issue and organization and personnel issues are operational issues (Hedlund, 1981). Since MNC centralizes network integration issues and decentralizes locally responsive issues, human resources management and marketing has the highest degree of autonomy (Edwards et al, 2002).

Large scale subsidiary and subsidiary with high intra-firm export have lower level of autonomy(Young et al, 1985). As subsidiary matures, manufacturing related autonomy increases but loses its autonomy in marketing(Gates & Egelhoff, 1986). When a subsidiary obtains autonomy in finance which is in a strategic decision-making realm, then it signifies that the subsidiary has secured specific advantage. Autonomy in finance positively affects firm's performance in productivity, quality and export orientation(Varblane et al, 2005). When subsidiary performance is affected by autonomy, then higher level of Korean subsidiary autonomy will have moderating effect on performance. To find out the moderating effect of autonomy on subsidiary performance, following hypotheses were drawn.

*Hypothesis 4:*

*The degree of Korean subsidiary autonomy has moderating effect on subsidiary performance.*

*Hypothesis 4-1 : Subsidiary autonomy has moderating effect on the relationship between configurational focus and performance.*

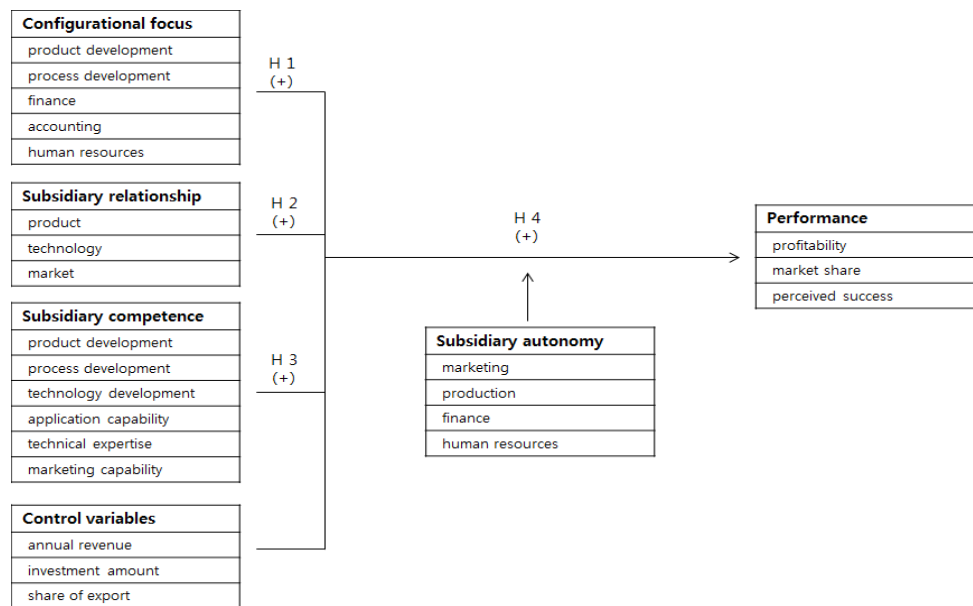
*Hypothesis 4-2 : Subsidiary autonomy has moderating effect on the relationship between subsidiary relationship and performance.*

*Hypothesis 4-3 : Subsidiary autonomy has moderating effect on the relationship between subsidiary competence and performance.*

### III. Model and Methodology

#### 1. Research model

The purpose of this study is to find out whether subsidiary's competencies, subsidiary relationship and configurational focus positively affect performance of MNC subsidiaries in Korea.



<Figure 1> Research Model

In addition to finding out determinants of performance of MNC subsidiaries in Korea, this study also seeks to find out whether autonomy has moderating effect on performance of subsidiaries. To answer the research question, following research model was proposed(Figure 1).

The sample for the study was selected from the directory of foreign companies in Korea. 192 manufacturing subsidiaries were selected through proportionate stratified sampling. Survey was conducted through interviews with managers of MNC subsidiaries in Korea to eliminate misunderstanding in survey questions and to ensure accurate response. The statistical analysis will be conducted with SPSS 20.

## 2. Measures

Measures for configurational focus reflects the international strategy of the parent firm in terms of allocation, integration and coordination of business activities across the borders. In this study, 9 management related activities in procurement of raw material and parts, production, new product development, process and design improvement, product design, marketing, finance, accounting, legal affairs, human resources, and training measures proposed by Roth(1992) which was adapted from components of value chain proposed by Porter(1980). The respondents were asked whether each activity was globally coordinated and integrated, regionally coordinated and integrated or decision-making authority delegated to subsidiary. Nominal scales were used and asked respondents to choose response 1 when business activities were conducted in one country. Response 2 was to be selected when business activities were conducted in more than two countries and are been integrated and coordinated in a global perspective. Response 3 was to be selected when activities were carried out in more than 2 countries and are integrated and coordinated by regional centers. Response 4 was to be selected when activities were solely managed by the subsidiary without any interference from the headquarter.

Subsidiary relationship was measured in terms of how much knowledge was exchange between the subsidiary and its affiliates. The level of knowledge inflows were measured in a way proposed by Lyles and Salk(1996) and Lane, et al.(2001) and adapted for this research on a five point Likert scale. Questions asked the respondents whether they exchange knowledge and information on product, technology, market, personnel and whether the subsidiary utilizes knowledge gained from exchanges.

Firm competence was measured in a way proposed by Lenz(1980) in which the respondent evaluated current level of competence. Snow & Hrebiniak(1980) classified functional competence into 10 areas including R&D, finance and marketing. Grant(1991) categorized functional competence into information management, R&D, production, design, marketing, sales and distribution. Product development capability, process development capability, technology development capability, application capability, technical expertise and marketing capability were used to measure competence on a 5 point Likert scale.

The level of autonomy measured in study reflects autonomy in decision making. In order to measure degree of autonomy, respondents were asked to rate the level of autonomy the subsidiary has in personnel, marketing, production and financial issues on a 5 point Likert scale.

In measuring subsidiary performance, respondents were asked to rate whether profitability, market share and evaluation of success were exceeding their expectations. Due to difficulty in obtaining objective values for success, measures were measured on a perceived level of success, such perceived scale are proven to have positive correlation with objective scale(Geringer & Hebert, 1991). As for the control variable, subsidiary's annual revenue, investment amount and share of export were measured. Natural log was taken for the values for annual revenue and investment amount to reduce skew. Measures for variables in this study is summarized in <table 1>.

<Table 1> Measures

Variables	Measured items	Reference
Configurational focus	9 management related activities in procurement of raw material and parts, production, new product development, process and design improvement, product design, marketing, finance, accounting, legal affairs, human resources, and training.	Porter(1980) Roth(1992)
Subsidiary relationship	exchange knowledge and information on product, technology, market, personnel. subsidiary utilization of knowledge gained.	Lyles & Salk(1996) Lane, et al. (2001)
Subsidiary competence	product development, process development, technology development, application capability, technical expertise and marketing.	Lenz(1980) Grant(1991)
Subsidiary autonomy	human resources, marketing, production, finance.	Varblane et al.(2005) Taggart & Hood(1999)
Performance	perceived scale on profitability, revenue, market share, productivity and export growth.	Geringer & Hebert(1989) Chandler & Hanks(1993)

### 3. Research Subject and Sample

The sample for the empirical testing was manufacturing subsidiaries of MNCs in Korea. The sample for the study was selected from the directory of foreign companies in Korea. 192 manufacturing subsidiaries were selected through proportionate stratified sampling. Only manufacturing subsidiaries were selected as subject of the study since manufacturing subsidiaries carry out wider range of corporate activities from procurement of resources, manufacturing, and marketing to sales.

As shown on table 3-2, machinery comprised 25% of the sample followed by chemical and electricity and electronics with 17.7%, food with 9.9%, medicine with 6.8% metal with 5.7%, textile and apparel, transportation and other with 4.7% and paper and timber and petroleum with 1.6%.

<Table 2> Industry sector

		frequency	percentage
Industry sector	food	19	9.9
	textile and apparel	9	4.7
	metal	11	5.7
	paper and timber	3	1.6
	machinery	48	25.0
	chemical	34	17.7
	electricity and electronics	34	17.7
	transportation	9	4.7
	medicine	13	6.8
	petroleum	3	1.6
	others	9	4.7
Total		192	100.0

The sample frame was limited to manufacturing subsidiaries because manufacturing subsidiaries routinely conduct all corporate activities from procurement of resources, manufacturing, and marketing to sales. The samples were selected through stratified sampling method. The surveys were conducted by interviews. Not surprisingly, American and Japanese firms set up the majority of subsidiaries in Korea. Parent company ownership of subsidiaries with more than 50% ownership comprised 92% of sample. And CEOs of subsidiary operation were mainly either Korean or

nationality of parent company. 75% of subsidiaries were established to enter Korean market and only 28.6% of subsidiaries had more than 30% in share of export in revenue indicating most are indeed Korean market oriented.

<Table 3> Descriptive data on samples

		frequency	percentage
nationality of parent firm	United States	67	34.9
	Japan	57	29.7
	Third country	68	35.4
parent firm's share of subsidiary ownership	100%	122	63.5
	more than 80% but less than 90%	2	1.0
	more than 70% but less than 80%	6	3.1
	more than 60% but less than 70%	7	3.6
	more than 50% but less than 60%	40	20.8
	less than 50%	15	7.8
nationality of CEO	nationality of parent firm	83	43.2
	Korea	108	56.3
	third country	1	.5
reasons for establishing Korean subsidiary	to enter Korean market	144	75.0
	to use as an export base	47	24.5
	to make it an Asian regional headquarter	1	.5
share of export in revenue	0%	38	19.8
	less than 19%	60	31.3
	between 20-29%	39	20.3
	more than 30%	55	28.6
total		192	100.0

## IV. Empirical Results

To empirically test proposed research model, variables were measured by following method. To measure the degree of configurational focus, 9 management related activities in procurement of raw material and parts, production, new product development, process and design improvement, product

design, marketing, finance, accounting, legal affairs, human resources, and training measures proposed by Roth(1992) which was adapted from components of value chain proposed by Porter(1980). The respondents were asked whether each activity was globally coordinated and integrated, regionally coordinated and integrated or decision-making authority delegated to subsidiary. Nominal scales were used and asked respondents to choose response 1 when business activities were conducted in one country. Response 2 was to be selected when business activities were conducted in more than two countries and are been integrated and coordinated in a global perspective. Response 3 was to be selected when activities were carried out in more than 2 countries and are integrated and coordinated by regional centers. Response 4 was to be selected when activities were solely managed by the subsidiary without any interference from the headquarter.

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Firm competence was measured in a way proposed by Lenz(1980) in which the respondent evaluated current level of competence. Snow & Hrebiniak(1980) classified functional competence into 10 areas including R&D, finance and marketing. Grant(1991) categorized functional competence into information management, R&D, production, design, marketing, sales and distribution. In this study, product development capability, process development capability, technology development capability, application capability, technical expertise and marketing capability were used to measure competence on a 5 point Likert scale.

The level of autonomy measured in study reflects autonomy in decision making. In order to measure degree of autonomy, respondents were asked to rate the level of autonomy the subsidiary has in personnel, marketing, production and financial issues on a 5 point Likert scale.

In measuring subsidiary performance, respondents were asked to rate whether profitability, market share and evaluation of success were exceeding their expectations. Due to difficulty in obtaining objective values for success, measures were measured on a perceived level of success, such perceived scale are proven to have positive correlation with objective scale(Geringer & Hebert, 1991). As for

the control variable, subsidiary's annual revenue, investment amount and share of export were measured. Natural log was taken for the values for annual revenue and investment amount to reduce skew. SPSS 20.0 was used for the study with significance level at .05, .01, and .001.

## 1. Validity

〈Table 4〉 Factor analysis

Factor	Item	Factors					Eigen value	% of variance	Cumulative %
		1	2	3	4	5			
subsidiary performance	sucess	.887					4.313	16.589	16.589
	market share	.859							
	sales growth	.850							
	profitability	.821							
	productivity	.784							
	export growth	.714							
subsidiary autonomy	korean suppliers		.777				3.599	13.841	30.430
	design		.736						
	advertising		.721						
	packaging		.706						
	cooperation		.673						
	regional marketing		.655						
	production process		.557						
configurational focus	accounting			.843			3.120	12.000	42.430
	finance			.760					
	new product			.713					
	human resources			.672					
	process design			.631					
subsidiary competence	application				.745		3.013	11.590	54.019
	technical expertise				.740				
	technology development				.713				
	process development				.712				
	marketing capability				.662				
subsidiary relationship	technology exchange					.889	2.250	8.653	62.672
	product exchange					.839			
	market exchange					.735			

To test the validity of surveyed items and to find out common factors, factor analysis was conducted. Principle components analysis was conducted with varimax rotation. Factor loadings higher than .40 and eigen value larger than 1 were used.

As shown of table 4, 5 factors were drawn which explained 62.672% of total variance. Factor 1 explained 16.589% of factors and was named subsidiary performance. Measured variables that were included in factor 1 are success, market share, sales, profitability, productivity and export growth. Factor 2 explained 13.841% of factors and was named subsidiary autonomy. Measured variables that were included in factor 2 are Korean suppliers, design advertising, packaging, cooperation, regional marketing and production process. Factor 3 explained 12.000% of factors and was named configurational focus. Measured variables that were included in factor 3 are accounting, finance, new product, human resources and process design. Factor 4 explained 11.590% of factors and was named subsidiary competence. Measured variables that were included in factor 4 are application, technical expertise, technology development, process development and marketing capability and factor 5 explained 8.653% of factors and was named subsidiary relationship. Measured variables that were included in factor 5 are technology exchange, product exchange and market exchange.

## 2. Reliability

Cronbach's alpha coefficient was used to test reliability. In general, alpha values over 0.6 are deemed to have reliability. As shown on table 5, alpha coefficient for subsidiary autonomy was .841, configurational focus .819, subsidiary competence .812, subsidiary relationship .794, and subsidiary performance .914. All alpha coefficient values proved to have values higher than .6 which indicates high internal consistency between items.

<Table 5> Reliability test

Factors	Cronbach' s alpha	Items
subsidiary autonomy	.841	7
configurational focus	.819	5
subsidiary competence	.812	5
subsidiary relationship	.794	3
subsidiary performance	.914	6

### 3. Descriptive statistics

As shown on table 6, value ranged from minimum of 1 to maximum of 5. Higher the number, higher the level of nature each factor stands for. Average value for subsidiary autonomy was 1.76, configurational focus 3.54, subsidiary competence 4.15, subsidiary relationship 3.79 and subsidiary performance 3.68.

〈Table 6〉 Descriptive statistics for factors

Factors	N	minimum value	maximum value	average	standard deviation
subsidiary autonomy	192	1	4	1.76	.507
configurational focus	192	2	4	3.54	.520
subsidiary competence	192	3	5	4.15	.564
subsidiary relationship	192	2	5	3.79	.647
subsidiary performance	192	2	5	3.68	.774

### 4. Correlations

Positive correlation exists between subsidiary performance and annual revenue( $r=.309$ ,  $p<.01$ ) indicating that as annual revenue increases so will the subsidiary performance. This could be the result of virtuous cycle of revenue and performance. Positive correlation exists between subsidiary performance and investment amount( $r=.194$ ,  $p<.01$ ). The larger the size of initial investment amount, better the subsidiary performance will be. This could explained by the economies of scale. Larger the investment amount, larger the economies of scale will be. Positive correlation exists between subsidiary performance and share of export( $r=.381$ ,  $P<.01$ ). Although larger percentage of subsidiaries in this study entered Korean market to serve the market rather than use Korea as an export base, greater the share of export led to better subsidiary performance. Positive correlation also exists between subsidiary performance and subsidiary competence( $r=.421$ ,  $p<.01$ ).

〈Table 7〉 Correlation table

	AR	IA	SE	SC	SR	CF	SA	SP
annual revenue (AR)	1							
investment amount (IA)	.757 (**)	1						
share of export (SE)	.266 (**)	.320 (**)	1					
subsidiary competence(SC)	.182 (**)	.014	.232 (**)	1				
subsidiary relationship(SR)	-.031	-.091	-.032	.013	1			
configurational focus(CF)	-.061	-.130	-.022	.317 (**)	-.267 (**)	1		
subsidiary autonomy(SA)	-.100	-.140	-.125	.255 (**)	-.236 (**)	.404 (**)	1	
subsidiary performance(SP)	.309 (**)	.194 (**)	.381 (**)	.421 (**)	.101	.112	.121	1
M(SD)	2.54 (1.269)	2.94 (1.14)	2.58 (1.104)	4.15 (0.564)	3.79 (0.647)	3.54 (0.52)	4.24 (0.507)	3.68 (0.774)

\*\*p&lt;.01

This result was not hardly surprising since more competent a subsidiary is higher the performance it will likely achieve. Natural log was taken for values for annual revenue and investment amount before the analysis to reduce skew.

## 5. Regression analysis

As shown on table 8, when only control variables were considered, it was statistically significant with  $R^2$  of .207 and F value of 16.323 at significance level of  $p<.001$ . In the third model, when subsidiary competence, subsidiary relationship, configurational focus and subsidiary autonomy factors were added, results were statistically significant with  $R^2$  of .322 and F value of 12.485 at  $p<.001$  significance level. Annual revenue( $t=2.479$ ,  $p<.05$ ) had positive effect on subsidiary performance. The share of export in revenue( $t=4.376$ ,  $p<.001$ ) had positive effect on subsidiary performance.

Configurational focus of subsidiary did not have statistically significant effect on subsidiary performance. Thus, hypothesis 1 which hypothesized that configurational focus of subsidiary has a

positive effect on subsidiary performance is not supported. This result was unexpected since if the MNC aligned its subsidiaries to be independent, then more locally adaptive it will be which in turn will lead to better performance.

<Table 8> Moderated regression analysis

		model 1				model 2				model 3				model 4			
		B	$\beta$	t	VIF	B	$\beta$	t	VIF	B	$\beta$	t	VIF	B	$\beta$	t	VIF
(coefficient)		2.965		20.577 (.000)		3.019		21.705		2.972		21.143 (.000)		2.905		20.186 (.000)	
control variable	annual revenue	.486	.361	3.633 *** (.000)	2.346	.309	.230	2.367* (.019)	2.528	.322	.240	2.479* (.014)	2.535	.296	.220	2.295* (.023)	2.557
	investment amount	-.298	-.190	-1.879 (.062)	2.429	-.081	-.051	-.520 (.603)	2.621	-.077	-.049	-.499 (.618)	2.621	-.045	-.028	-.291 (.772)	2.650
	share of export	.243	.346	5.040 *** (.000)	1.116	.192	.274	4.109 *** (.000)	1.189	.206	.293	4.376 *** (.000)	1.218	.210	.299	4.441 *** (.000)	1.262
independent variable	competence					.403	.293	4.233 *** (.000)	1.286	.364	.265	3.761 *** (.000)	1.348	.356	.260	3.719 *** (.000)	1.351
	relationship					.151	.126	1.961 (.051)	1.114	.178	.149	2.285* (.023)	1.153	.181	.151	2.275* (.024)	1.228
	configuration al focus					.099	.066	.969 (.334)	1.255	.045	.030	.425 (.671)	1.357	.083	.056	.787 (.432)	1.383
moderator	mc autonomy									.199	.130	1.869 (.063)	1.312	.228	.149	2.109* (.036)	1.391
interaction terms	competence* autonomy													-.202	-.074	-1.093 (.276)	1.284
	relationship* autonomy													.122	.048	.692 (.490)	1.345
	focus* autonomy													.645	.197	2.632** (.009)	1.561
F		16.323***				13.797***				12.485***				9.648***			
R <sup>2</sup>		0.207				0.309				0.322				0.348			
Adj. R <sup>2</sup>		0.194				0.287				0.296				0.312			
$\Delta R^2$						0.102				0.013				0.026			

\*p<.05, \*\*p<.01, \*\*\*p<.001

Subsidiary relationship( $t=2.285$ ,  $p<.05$ ) had positive effect on subsidiary performance. Thus, hypothesis 2 which hypothesized that subsidiary intra-MNC network relationship has a positive effect on subsidiary performance is supported. More a subsidiary learns and transfers knowledge from both its global networks of relationships, the more opportunities it will have for increasing

its capability to create new knowledge. Knowledge gained from interaction will enable a subsidiary to become more competent. Creating new knowledge can be a source for subsidiary competence and subsidiaries with higher level of competence will likely have better performance.

Subsidiary competence( $t=3.761$ ,  $p<.001$ ) had positive effect on subsidiary performance. Thus, hypothesis 3 which hypothesized that subsidiary competence has a positive effect on subsidiary performance is supported. Firm competence is an ability to combine existing tangible and intangible resources, it can encompass firm's ability to improve its existing product, develop new product, improve its process and develop new technology(Lenz, 1980). Thus, subsidiary competence will lead to better performance.

## 6. Moderating effect analysis

As shown on table 8, to find out the moderating effect of subsidiary autonomy on the relationship between subsidiary competence, relationship and configurational focus and subsidiary performance, hierarchical regression was conducted. To avoid multicollinearity problems, hierarchical regression was done after mean centering. Tolerance value was greater than 0.1 and variance inflation factor(VIF) was less than 10 meaning multicollinearity issue was non existent.

In the first model when only control variable was added, model was statistically significant with  $R^2$  of .207 and F value of 16.323 at  $p<.001$  significance level. In the second model when independent variables was added, model was statistically significant with  $R^2$  of .309 and F value of 13.797 at  $p<.001$  significance level. Moderate variable was added in model 3, and the model was statistically significant with  $R^2$  of .322 and F value of 12.485 at  $p<.001$  significance level.

In model 4, interaction term of independent variable and moderate variable was added and the model was significant with  $R^2$  of .348 and F value of 9.648 at  $p<.001$  significance level. Annual revenue( $t=2.295$ ,  $p<.05$ ) had positive effect on performance indicating as annual revenue increases, so will the performance of Korean subsidiary. The share of export( $t=4.441$ ,  $p<.001$ ) had positive effect on performance implying that as the share of exports increase, the performance of Korean subsidiary will increase as well. Subsidiary competence( $t=3.719$ ,  $p<.001$ ) had positive effect on performance of Korean subsidiaries. When the competence of Korean subsidiaries improves, then the subsidiaries will show higher level of performance.

Subsidiary relationship( $t=2.275$ ,  $p<.05$ ) had positive effect on subsidiary performance. That is, higher the intra-network subsidiary relationship, higher the subsidiary performance. Subsidiary autonomy( $t=2.109$ ,  $p<.05$ ) had positive effect on subsidiary performance. Higher the level of subsidiary autonomy, higher the level of subsidiary performance will be. The interaction factor of configurational focus and subsidiary autonomy( $t=2.632$ ,  $p<.01$ ) had positive effect on performance of Korean subsidiaries. Other interaction factors of subsidiary competence and subsidiary autonomy, and subsidiary relationship and subsidiary autonomy did not prove to have statistically significant effect on subsidiary performance. Thus, hypothesis 4-1 is supported while hypothesis 4-2 and 4-3 are not supported.

On mediating effect of autonomy, only configurational focus among independent variables of subsidiary competence, subsidiary relationship and configurational focus had positive effect on performance. Thus, autonomy of Korean subsidiary seem to have partial mediating effect on performance and the hypothesis 4 is partially supported. It is interesting to note that while configurational focus alone does not affect subsidiary performance alone as hypothesis 1 is not supported, but interaction with subsidiary autonomy it does indeed affect subsidiary performance as is substantiated in the result of hypothesis 4-1. This result implies that while configurational focus alone does not have statistically significant effect on performance, but with the right combination of subsidiary autonomy and configuration subsidiary performance will be increased. This paper does not suggest what the ideal combination should be but subsidiaries in Korea should strive to find the right combination if they were to succeed in Korea.

Empirical testing results can be summarized as follows; Subsidiary with higher level of configurational focus does not have higher level of performance. If the MNC network of subsidiary is configured to give more decision power to the subsidiaries, than the subsidiaries does not perform better. Subsidiary with higher level of interaction with its intra-MNC network have higher level of performance indicating that active interaction with their affiliates will lead to better performance. Subsidiary with competence have higher level of performance. Subsidiary autonomy, in some instances, have moderating effect on performance. Moderating effect of subsidiary competence and subsidiary relationship has not been validated in this study. However, subsidiary competence does indeed affect subsidiary autonomy which in turn has moderating effect on performance. Optimal MNC structure and attainment of subsidiary autonomy is needed to secure competitiveness in Korean market.

## V. Conclusion

Autonomy of a subsidiary plays an important role in subsidiary performance as empirically tested in this study. Attaining autonomy will help subsidiaries to maximize their performance in Korea. If subsidiary autonomy is of importance, how to attain autonomy must also be looked into. Multinational corporations(MNC)'s Korean subsidiaries are finding Korean market to be a tough market to compete in. Due to demanding Korean customers, Korean market often serves as a test bed for MNCs before they launch global products. In order to succeed in demanding Korean market, foreign subsidiaries need to responsive to demand conditions in Korea. To become flexible and responsive, foreign subsidiaries in Korea need to have autonomy in their decision making. Degree of autonomy of subsidiaries can be determined by the role and mandate given by the headquarters but other factors could influence subsidiary autonomy. This study sought to find out the determinants of subsidiary performance. In addition, moderating effect of autonomy on the relationship between subsidiary competence, subsidiary relationship and subsidiary configurational focus, and subsidiary performance was analyzed.

Empirical analysis show that subsidiary relationship and competence both have positive effect on subsidiary performance. and subsidiary autonomy has moderating effect on the relationship between configurational focus and performance. In order to succeed in demanding Korean market, subsidiaries should not only develop their competence but also immerse in intra-MNC network to gain knowledge and information. Foreign subsidiaries in Korea will want answers to how to compete in Korean market. MNC possess specific advantage that can offset foreign cost and to utilize its specific advantage in Korea. In order to succeed in Koran market, securing autonomy to sufficiently localize can be a deciding factor in succeeding in Korean market. Degree of autonomy of foreign subsidiaries in Korea does have moderating effect on performance in some aspects. With right combination of subsidiary autonomy and configuration, subsidiary performance will be increased. This paper does not suggest what the ideal combination should be. However subsidiaries in Korea should strive to find the right combination if they are to succeed in Korea. Thus, in order to succeed in Korean market, securing autonomy to sufficiently localize can be a deciding factor in succeeding.

This study does have limitations. Moderating effect of other factors not included in this study

might generate different results. This study was based on manufacturing MNC subsidiaries in Korea. A study on service sector might come up with different results. It would be interesting to conduct an identical research in other countries and compare results. Then the comparison would clarify whether the results of the study is attributable to location specific nature of Korean market or market seeking nature of subsidiaries. Thus, research should be expanded to studying different markets with MNC subsidiaries with different purpose of entry.

## References

- Aaker, D.A., "Managing Assets and Skills: The key to a sustainable competitive advantage," *California Management Review*, 32, 91-106, 1989.
- Andersson, U. and Forsgren, M., "In search of centre of excellence: Network embeddedness and subsidiary roles in multinational corporations," *Management International Review*, 40, 329-350, 2000.
- Andersson, U. and Pahlberg, C., "Subsidiary influence on strategic behaviour in MNCs: An empirical Study," *International Business Review*, 6(3), 319-334, 1997.
- Birkinshaw, J. "How Multinational subsidiary mandates are gained and lost," *Journal of International Business Studies*, 27(3), 467-496, 1996.
- Birkinshaw, J. and Hood, N. "Multinational subsidiary evolution: capability and charter change in foreign owned subsidiary companies," *Academy of Management Review*, 23(4), 773-795, 1998.
- Brass, D. and Burkhardt, M. Centrality and power in organizations, in N. Nohria and R. Eccles (Eds.), *Networks and organizations: Structure, form, and action*, Boston, Harvard Business School Press, 1992.
- Chandler, G. N. & Hanks, S. H, "Measuring the performance of emerging businesses: A validation study," *Journal of Business Venturing*, 8, 391-408, 1993.
- Chatterjee, S. and Wernerfelt, B, "The link between resources and type of diversification: Theory and evidence", *Strategic Management Journal*, 12(1), 33-48, 1991.
- Edwards, M., Ahmad, A. and Moss, S, "Subsidiary autonomy: the case of multinational subsidiaries in Malaysia," *Journal of International Business Studies*, 33(1), 183-191, 2002.

- Gammelgaard, J., McDonald, F., Stephan, A., Tuselmann, H. and Dorrenbacher, C, "The impact of increases in subsidiary autonomy and network relationship on performance," *International Business Review*, 21(6), 1158-1172, 2012.
- Garnier, G.H., Osborn, T.N., Galicia, F. and Lecon, R, "Autonomy for the Mexican affiliates of U.S. multinational corporations," *Columbia Journal of World Business*, 14(1), 78-90, 1979.
- Gates, S.R. and Egelhoff, W.G, "Centralization in headquarter-subsidiary relationships," *Journal of International Business Studies*, 17(2), 71-92, 1986.
- Geringer, M. and Hebert, L, "Control and performance of international joint venture," *Journal of International Business Studies*, 20, 235-254, 1989.
- Grant, R.M, "The resource-based theory of competitive advantage : Implication for strategy formation," *California Management Review*, 33(3), 114-135, 1991.
- Hedlund, G, "The role of foreign subsidiaries in strategic decision-making in Swedish multinational corporations," *Strategic Management Journal*, 1(1), 23-36, 1981.
- Kim, M.S. and Bang, H.Y, "A Typology of MNC's Foreign Subsidiaries: A Conceptual Model and Korean Cases," *International Commerce and Information Review*, 15(1), 227-256, 2013.
- Kogut, B. and Zander, U, "Knowledge of the firm, combinative capabilities, and the replication of technology," *Organization Science*, 3, 383-397, 1992.
- Lane, P. J., Salk, L. E., and Lyles, M. A, "Absorptive capacity, learning, and performance in international joint ventures," *Strategic Management Journal*, 22, 1139-1161, 2001.
- Lee, K.B., "The Impacts of Competition and Technology Change on the HQ-subsidiary Cooperation," *International Commerce and Information Review*, 16(5), 203-221, 2014.
- Leonard-Barton D, "Core capabilities and core rigidities: A paradox in managing new product development," *Strategic Management Journal*, 13, 111-126, 1992.
- Lenz, R. T, "Strategic capability: A concept and framework for analysis," *Academy of Management Review*, 5(2), 225-234, 1980.
- Lyles, M. A. and Salk, J. E, "Knowledge acquisition from foreign parents in international joint ventures," *Journal of International Business Studies*, 27(5), 877-904, 1996.
- Morrison, A.J., Ricks, D.A. and Roth, K, "Globalization versus regionalization: Which way for the multinational?," *Organizational Dynamics*, 19(3), 17-29, 1991.
- Porter, M. E, *Competitive strategy*, New York, The Free Press, 1980.
- Roth, K. "international configuration and coordination archetypes for medium-sized firms in global

- industry,” *Journal of International Business Studies*, 23(3), 533-549, 1992.
- Rugman, A. & Douglas, S, The strategic management of multinationals and world product mandating, in Rugman, A. *The theory of multinational enterprises: The selected scientific papers of Alan R. Rugman*, Brookfield, Elgar, 1996.
- Rugman, A.M. and Verbeke, A, “Subsidiary specific advantage in multinational enterprises,” *Strategic Management Review*, 22(3), 237-250, 2001.
- Salancik, G.R, “An index of subgroup influence in dependency networks,” *Administrative Science Quarterly*, 31(2), 194-211, 1986.
- Snow, C. and Hrebiniak, L, “Strategy, distinctive competence and organizational performance,” *Administrative Science Quarterly*, 25, 317-336, 1980.
- Taggart, J.H. and Hood, N, “Determinants of autonomy in multinational corporation’s subsidiaries,” *European Management Journal*, 17(2), 226-236, 1999.
- Tran, Y., Mahnke, V. and Ambos, B, “The effect of quantity, quality and timing of headquarters-initiated knowledge flows on subsidiary performance,” *Management International Review*, 50, 493-511, 2010.
- Varblane, U., Mannik, K. and Hannula, H, *Autonomy and performance of foreign subsidiaries in transition countries*, Tartu, Tartu University Press, 2005.
- Young, S., Hood, N., and Hamill, J, “Decision-making in foreign-owned multinational subsidiaries in the United Kingdom”, *ILO Working Papers*, 35, 1-66, 1985.
- Young, S. and Tavares, A.T, “Centralization and autonomy: Back to the future,” *International Business Review*, 13(2), 215-237, 2004.
- Winter, S.G, “The satisfying principle in capability learning,” *Strategic Management Journal*, 21, 981-96, 2000.

## 국문초록

# 다국적기업 한국자회사의 성과에 대한 자율성 조절효과 연구

유재하\* · 이춘수\*\*

다국적기업 한국자회사의 자율성은 자회사에게 주어진 역할과 권한부여에 따라 자율성의 정도가 결정되어지기도 하나 다른 요인들에 의해 정해지기도 한다. 본 연구에서는 자회사 성과의 결정요인을 규명하고 또한 자회사 역량, 자회사관계 및 자회사구성형태와 자회사 성과와의 관계에 있어서의 자율성의 조절효과를 규명하고자 한다. 다국적기업은 본사국과는 이질적인 환경에 투자를 통해 자회사를 설립하고 이들 자회사가 본사가 기대하고 있는 성과를 창출하기를 기대할 것이다. 자율성의 조절효과의 실증분석 결과는 한국에서 경쟁하고 있는 다국적기업 자회사에게 보다 경쟁우위를 확보할 수 있는 방안을 제시할 것이다.

실증분석 결과를 살펴보면 다국적기업 네트워크 내에 있는 본사 또는 다른 자회사와의 상호교류관계의 정도가 높은 자회사일수록 한국시장에서 더 높은 성과를 창출하고 있다. 또한 자회사 역량의 정도가 높을수록 더 높은 성과를 창출하고 있다. 자회사의 자율성은 자회사구성형태와 자회사 성과 관계에 조절효과를 보이고 있다. 그러므로 최적의 자회사구성형태와 자율성의 확보는 한국시장에서 성공할 수 있는 필요조건이라 할 수 있다.

다국적기업 한국자회사가 경쟁이 치열한 한국시장에서 성과를 제고하려면 자회사 특유의 역량을 확보해야 할 뿐만 아니라 본사 및 다른 자회사로부터의 지식과 정보 획득을 통한 자회사의 역량강화를 위해 다국적기업 네트워크 관계에도 적극적으로 참여하여야 한다.

본 연구의 결과를 통해 다국적기업 한국자회사의 성과 극대화를 위한 유용한 의사결정 방향을 제시하고자 한다. 자회사의 역량제고, 다국적기업 네트워크에서의 긴밀한 관계유지 및 자율성 확보를 통해 다국적기업 한국자회사는 한국시장에서 성과를 제고 할 수 있을 것이다.

**주제어** : 자율성, 자회사, 역량, 관계, 자회사구성형태

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