

EFFECTIVE TRANSFER OF MARKETING KNOWLEDGE FOR HIGHER PERFORMANCE: CASES OF KOREAN SUBSIDIARIES OF MNCs

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Abstract. Knowledge is considered to be a key element of understanding how organizations gain and sustain competitive advantages. But very few firms are capable of creating the requisite knowledge and thus, firms should continue to search new knowledge sources and acquire knowledge from external organizations. The knowledge seeking activities in this study are assumed to be conducted within the nexus of the headquarters and subsidiaries of a multinational corporation. Given the strategic significance of knowledge, this study focuses on the relationships among adaptability of marketing knowledge, levels of knowledge transfer and marketing performance and also examines the moderating roles of absorptive capacity, socialization and local marketing knowledge. Empirical results of survey data collected from top executives at the foreign marketing subsidiaries in South Korea show that firms with strong absorptive capacity and much local marketing knowledge can acquire more external knowledge, which can be transformed later into greater degrees of competence and marketing performance.

1 Introduction

Rapid changes and turbulences in the nature of global competition have motivated managers at multinational corporations (MNCs) and researchers in the academia to search innovative ways to overcome new challenges facing MNCs. As MNCs face head-to-head competition with global rivals in developed countries as well as emerging markets (Buckley and Casson, 1998), they have sought solutions for developing sustainable competitive edge over competitors. As a strategic response to multi-market competition prevailing in a globalized world, MNCs are

required to develop effective marketing strategies (Hansen and Nohria, 2004; Zou and Cavusgil, 2002). An underpinning of effective marketing strategies is marketing knowledge, (Li and Calantone, 1998), which is conceptualized as the know-how required when marketing activity is executed and composed of market research, channel operation, promotion, product design, marketing information system, customer services, and so on. Many MNCs which become market leaders are those that develop excellent marketing capabilities in a sense that marketing knowledge is a crucial element of marketing capabilities and one of the most important ownership advantages of MNCs entering overseas markets (Dunning, 1977).

A common thread among the resource-based view (Barney, 1991), organization learning (Hedlund, 1994), and the dynamic capability perspective (Teece et al., 1997) is a view that MNCs can be conceptualized as a nexus of knowledge flow among their organizational units and they greatly benefit from the transfer of resources and competencies within the firm, which is the central tenet of the knowledge-based view of the firm (Grant, 1996). This study based on the knowledge-based view examines the central role played by absorptive capacity (Cohen and Levinthal, 1990; Zahra and George, 2002) in transforming knowledge into competitive advantages as MNCs perform knowledge transfer activity within their firm boundary. Concentrating on one particular type of competency – marketing knowledge, this study departs from extant studies that have mainly dealt with technology and other technical knowledge transfers. Marketing knowledge has yet to receive proper attention as a source of competitive advantage that can be transferred within MNCs. The empirical part of this study involves examining relationships among adaptability of knowledge and knowledge transfer and marketing performance and testing the moderating roles of absorptive capacity, socialization and local marketing knowledge.

This study is organized as follows: (1) Previous literature on knowledge, knowledge transfer and absorptive capacity is summarized, followed by the development of hypotheses derived from the knowledge-based view and absorptive capacity. (2) The hypotheses are tested with data collected from MNCs' subsidiaries performing marketing activities in Korea. The study is closed with findings, implications, and conclusions.

2 Literature Review

2.1 Strategic Value of Knowledge and Knowledge Transfer

The significance of knowledge has been emphasized in many research streams. Knowledge such as technology, operational know-how, practices, and routines, has been considered to be a

fundamental source of competitive advantage. The resource-based view posits that valuable, rare, inimitable, non-substitutable resources and related sets of operational routines and technological skills are sources of sustainable competitive advantages for firms (Barney, 1991). It has used knowledge synonymous with resources. This conceptualization is further propped up by the dynamic capability perspective, which contends that competitive advantage relies upon particular organizational and managerial processes, termed ‘dynamic capability,’ which is defined as a firm’s ability to integrate, build, and reconfigure internal and external competencies to adapt flexibly to market changes (Teece *et al.*, 1997). The dynamic capability perspective hints at the source of superior firm performance, and emphasizes the importance of accumulating knowledge over a certain period. As an integrated theory of the perspectives fore-mentioned, the knowledge-based view postulates that embedded knowledge constitutes the basis for the sustained competitiveness of a firm (Grant, 1996), and that knowledge-based assets are promising sources of resource-based advantages because firm-specificity, social complexity, and causal ambiguity make them hard to imitate.

Organization-embedded knowledge tends to be transferred effectively through intra-firm transfer mechanisms. This is more relevant for MNCs. The MNC is regarded as a ‘differentiated network’, where knowledge is created in diverse units of the MNC and is frequently shared and transferred across borders, either between the headquarters and its subsidiaries, or among subsidiaries (Gupta and Govindarajan, 1991). Kogut and Zander (1993) also conceptualize MNC as a knowledge-sharing network whose existence can be understood in terms of its ability to transfer, integrate and deploy knowledge more efficiently than market mechanisms. Almeida, Song and Grant (2002) argue that MNCs transfer knowledge across countries more effectively than strategic alliances or markets because they not only possess robust internal mechanisms for knowledge transfer at their disposal, but can also use these mechanisms flexibly. MNCs have particular incentive to develop such mechanisms because their competitive advantage depends in large part upon their ability to facilitate and manage inter-firm transfer of knowledge (Minbaeva *et al.*, 2003).

2.2 Adaptability of Knowledge

As firms in the globalized business environment are concerned with the transfer and use of knowledge across national borders, there is a rising consensus that knowledge should be adapted to needs of the local environments. Scholars have devoted a substantial amount of attention to prescribing knowledge adaptation as a necessary component in transfers of firm-specific assets

(Bartlett and Ghoshal, 1989). Empirical studies also support that some degree of adaptation almost invariably accompanies the cross-border transfer of firm-specific practices (Jensen and Szulanski, 2004).

Conditions in different locations vary widely, creating pressures for adaptation as firms attempt to maximize their fit with the local environment (Bartlett and Ghoshal, 1989). Pressures such as cultural differences, governmental regulations, consumer preferences and needs, and labor practices, etc. constitute general market demands for adaptation. From the general market demands perspective, the primary goal of adaptation is to alter the transferred knowledge so that it can effectively work in the local environment, and help local people to accept the knowledge more easily. Unfit knowledge with the environment may engender a rejection of the knowledge being transferred, or a rejection of the receiving unit using the knowledge (Sorge, 1991).

In the view of institutional scholars adaptation increases both cognitive and normative legitimacy, resulting in recipients' increased motivation and ability to accept and utilize transferred assets (Kostova and Zaheer, 1999). Institutional theory posits that organizational practices are imbued with meaning and value that go beyond the technical aspects of the particular practice. This perspective suggests that legitimation is the main purpose and a benefit of adaptation. In a situation of cross-border knowledge transfer, legitimacy can be obtained by adapting transferred knowledge and practices to the essential characteristics of the local institutional environment (Kostova and Zaheer, 1999). Given that adaptation increases legitimacy by altering the knowledge to fit the local environment, the benefit of adaptation is likely to increase, and the stickiness of transfer is likely to decrease when institutional distance is wide.

2.3 Reconceptualization of Absorptive Capacity

Since a seminal work of Cohen and Levinthal (1990), the concept of absorptive capacity, defined as the ability of a firm to recognize the value of new external information, assimilate it and apply it to commercial ends, has been of particular importance to the research on knowledge transfer and firm's competitive advantages. It stresses knowledge receiving firm's capability to absorb and exploit external knowledge as a critical factor in the knowledge transfer process. A key element in knowledge transfer is not the underlying original knowledge, but rather the extent to which the receiving firm acquires potentially useful knowledge and utilizes it for its own operations (Minbaeva *et al.*, 2003). Transforming the knowledge acquired from external sources into valuable knowledge through internalization processes and exploiting it effectively is

contingent upon receiving firms' capability. Firms with the ability to identify, share and properly use external knowledge tend to enjoy long-term prosperity (Teece *et al.*, 1997; Gupta and Govindarajan, 2000). In line with this perspective, the knowledge-based view suggests that the ability to transfer and create knowledge internally is one of the main competitive advantages that MNCs can develop (Minbaeva *et al.*, 2003). However, the level and the consequence of knowledge transfer from the headquarters to a subsidiary differ, contingent upon the absorptive capacity of the subsidiary (Gupta and Govindarajan, 2000).

Many studies have attempted to extend the original concept of absorptive capacity. Lane *et al.* (2001) refine the concept and propose that 'the two components, the ability to understand external knowledge and the ability to assimilate it, are interdependent yet distinct from the third component, the ability to apply the knowledge' (p. 1156). Zahra and George (2002) also extend the concept by disintegrating it into four dimensions: acquisition, assimilation, transformation, and exploitation. The first two dimensions form 'potential absorptive capacity' and the latter two dimensions compose 'realized absorptive capacity'. Potential absorptive capacity captures efforts expended in identifying and acquiring new external knowledge and in assimilating knowledge obtained from external sources. Realized absorptive capacity encompasses deriving new insights and consequences from the combination of existing and newly acquired knowledge and incorporating transferred knowledge into operations.

In addition, Zahra and George (2002) posit that firms need to manage these two absorptive capacities in balance to achieve superior performance. Although firms focusing on potential absorptive capacity are able to continually renew their knowledge stock, they may suffer from the costs of acquisition without gaining the benefits of exploitation. Conversely, firms focusing on realized absorptive capacity may realize short-term profits through exploitation but fall into a competence trap and may not be able to respond to new environmental changes.

3 Hypotheses Development

3.1 Adaptability and Knowledge Transfer

Very few firms are capable of developing internal knowledge necessary to respond to the turbulent and rapidly changing global business environment. Thus, firms seek out actively and continuously to acquire valuable knowledge from other sources to maintain their competitive edge. Facing imperative tasks of acquiring knowledge, MNCs tend to capitalize on their internal

networked structure through which knowledge is transferred and exchanged among the headquarters and subsidiaries. Transferring knowledge within the boundary of MNCs, however, is not easy because knowledge is embedded with the organization (Gupta and Govindarajan, 2000). Many studies on knowledge transfer indicate that transfer of knowledge within the organization is often difficult or ‘sticky’ (Szulanski, 1996), and studies focusing on the transfer of organizational practices suggest that adaptation increase the acceptance of the practice and decrease the stickiness of knowledge transfer (Griffith *et al.*, 2000).

It is proposed that one of the most central issues of the studies on MNCs is the cross-border transfer of resources and capabilities, and a crucial theme is to examine whether or not and to what extent transferring resources should adapt to different local conditions (Bartlett and Ghoshal, 1989). Extant research has suggested that adaptation is necessary in order to ensure fit with the local environment, which typically differs from the source environment, along a number of critical institutional and market dimensions (Cui and Liu, 2001). Knowledge on new product and market development, advertising campaigns, customer services, marketing practices, distribution policies are more likely to function effectively when they are suitable to local market needs and environment. Hence, high adaptability of external knowledge to the local environment and local subsidiary’s management and operations is more likely to facilitate transfer of the knowledge. In contrast, low adaptability or unfit of external knowledge will increase the ‘stickiness’ in the process of knowledge transfer. Unfit knowledge may cause the knowledge being transferred to be rejected, or deter the receiving subsidiary from using the knowledge (Sorge, 1991).

H1: Adaptability of knowledge transferred from the MNCs’ headquarters and other subsidiaries is positively associated with knowledge inflows into the receiving subsidiary.

3.2 Knowledge Transfer and Marketing Performance

Given the limited ability of a firm to create all the necessary knowledge internally, the firm should turn to external sources in order to continuously broaden their knowledge base. Thus, the acquisition, sharing, and exploiting external knowledge through knowledge transfer has emerged as a crucial component of firm’s competitive advantage. Because each organizational unit in an MNC network resides in a unique market condition and is equipped with different capabilities, an intensive transfer of knowledge among an MNC’s headquarters and its subsidiaries can benefit the entire MNC (Luo, 2003).

The strategic value of transferred knowledge may be accentuated when the receiving subsidiary is designated to perform a specific operation and it has received knowledge necessary to perform the operation (Kogut and Zander, 1993). If a subsidiary expected to perform such marketing tasks as new product and market development, customer services, and other marketing activities has received adequate marketing knowledge from its headquarters and other subsidiaries, it is highly likely to achieve superior performance in its marketing operations.

H2: The level of marketing knowledge transferred from the MNCs' headquarters and other subsidiaries is positively associated with marketing performance of the receiving subsidiary.

3.3 Absorptive Capacity, Knowledge Transfer, and Marketing Performance

There are a considerable number of studies on issues and challenges involved in successfully transferring knowledge across MNC units, and a central theme for MNCs is to find ways to develop organizational capabilities that accelerate knowledge flows (Gupta and Govindarajan, 1991). From the perspective of organizational knowledge creation, a strategic focus is geared toward developing the organizational capability to acquire, accumulate, and exploit knowledge and the role of absorptive capacity of the receiving unit stands out as the most significant determinant of knowledge transfer (Lane and Lubatkin, 1998).

As per the absorptive capacity view, the level of knowledge transferred from source firms will be higher in receiving firms with strong absorptive capability than it is in those receiving firms with weak absorptive capability. Gupta and Govindarajan (2000) posit that the capability of a subsidiary to absorb incoming knowledge from other units is positively associated with inflows of knowledge into that subsidiary (p. 476).

Zahra and George (2002) propose four aspects of absorptive capacity: acquisition, assimilation, transformation, and exploitation. The first two aspects form 'potential absorptive capacity (PAC)', and the latter two aspects constitute 'realized absorptive capacity (RAC)'. While 'potential absorptive capacity' indicates a firm's capability to search, evaluate and assimilate external knowledge, 'realized absorptive capacity' refers to a firm's capacity to convert and utilize absorbed knowledge. While the first capacity comprises the activities that lead to the flow of knowledge from the source to the recipient, the latter capacity involves the activities that internalize and leverage the previously transferred knowledge. Clearly, acquiring useful knowledge from external sources is the first step in accumulating knowledge and broadening a firm's knowledge base. But another critical point is that the pure transmission of knowledge from the source to the recipient has a limited value if the recipient does not properly

use the acquired knowledge. Thus, these two capacities, knowledge acquirement capability and application capability with their respective function and role, are independent but inseparable in the entire processes of knowledge transfer.

Consistent with Minbaeva *et al.*'s (2003) viewpoints, the key element in knowledge transfer is not the underlying (original) knowledge, but rather the extent to which the receiver acquires potentially useful knowledge and utilizes this knowledge for its own operations. A firm's capacity to exchange and combine knowledge can predict firm revenue from new products and services, as well as firm sales growth (Collins and Smith, 2006). In conclusion, 'potential absorptive capacity' is related to the first stage of the knowledge transfer process, the stage of identifying, acquiring and assimilating new external knowledge, while 'realized absorptive capacity' is related to the second stage of the knowledge transfer process, the stage of transforming and exploiting the previously acquired external knowledge in an effective way in order to generate profit and other efficient outcomes. Thus, strong potential absorptive capacity can be expected to facilitate the process of knowledge transfer from external sources to the receiving firm, and strong realized absorptive capacity can be postulated to promote the conversion of external knowledge into organization's performance.

H3: Increases in potential absorptive capacity will enhance the relationship between adaptability of knowledge and the level of marketing knowledge transfer.

H4: Increases in realized absorptive capacity will enhance the relationship between the level of knowledge transfer and marketing performance of the receiving subsidiary.

3.4 Socialization, Adaptability of Knowledge and Knowledge Transfer

Extant research has reported that relationships or ties between source and recipient have a significant impact on knowledge transfer (Szulanski, 1996). The existence of close interpersonal or inter-firm relationships (ties, networks, linkages) facilitates the transfer and learning of external knowledge (Cavusgil *et al.*, 2003; Tsai, 2001). Szulanski (1996) posits that the absence of pre-existing relationships among units is a factor lending itself to the creation of 'stickiness' in knowledge transfer. When the knowledge sender and recipient have difficulty establishing interpersonal interactions, knowledge transfer is hindered. In contrast, when interactive mechanisms such as relationships (ties), informal social networks, formal linkages between knowledge sender and receiver, teams, norms for collaboration, and formal meeting exist (Gupta and Govindarajan, 2000), knowledge transfer will be facilitated.

Hansen (1999) addresses the role of inter-unit ties for knowledge sharing within MNCs,

noting that efficient knowledge sharing is typically characterized by tight coupling between people from different subunits. Björkman *et al.* (2004) also propose the effect of inter-personal ties on knowledge transfer. They note that interpersonal ties between MNC units provide important channels through which both information and resources flow. In a similar vein, Gupta and Govindarajan (2000) propose that the use of corporate socialization mechanisms by MNCs can have a positive impact on knowledge flows. Firms need to nurture socialization activities that enable organization members to engage in knowledge exchange and sharing and to facilitate intra-knowledge flows (Roth and O'Donnell, 1996).

H5: Increases in socialization activity among the headquarters and subsidiaries will enhance the relationship between adaptability of knowledge and the level of marketing knowledge transfer.

3.5 Locally Developed Knowledge, Knowledge Transfer, and Marketing Performance

Within an MNC, knowledge transferred from source units should be utilized at the receiving subsidiary to conduct assigned tasks and achieve desirable performance set by the headquarters. A prerequisite condition for the utilization of transferred knowledge may involve capitalizing on the existing local knowledge, because synergistic and superior outcomes are generated when the transferred knowledge adds on the locally developed knowledge. Grant (1996) posits that organizations need to develop flexibility that refigures existing knowledge to be effectively integrated with transferred knowledge. Gupta and Govindarajan (2000) also note that individuals and organizations may differ in their absorptive capacity due to prior related knowledge. Prior related knowledge is of particular importance because it shapes the filters through which the organization differentiates between more vis-à-vis less relevant signals and also because it determines the organization's ability to assimilate and utilize the more valued knowledge (Cohen and Levinthal, 1990).

The importance of existing knowledge is echoed by Foss and Pedersen (2004). They assert that knowledge flows emerge from knowledge stocks. On the other hand, knowledge stocks have the potential to change knowledge flows. The benefits of knowledge transfer will be manifested when firms attempt to integrate their existing knowledge with transferred knowledge from others and deploy the new knowledge in various contexts. The stock of subsidiary's endogenous knowledge, referred to as a subsidiary's locally developed knowledge, may be of great value, and will be played as a catalyst that transforms transferred knowledge into strategic assets and as a foundation on which superior performance can be leveraged (Hansen and Nohria,

2004).

H6: Increases in the level of locally developed marketing knowledge will enhance the relationship between the level of knowledge transfer and marketing performance of the receiving subsidiary.

The research framework that illustrates the proposed hypotheses is presented in figure 1.

Insert figure 1 about here

4 Methods

4.1 Sample

The unit of analysis for this study is knowledge transfer from the MNCs' headquarters and other subsidiaries to their subsidiaries operating in South Korea. The population for this study consists of subsidiaries established either as joint ventures or as wholly-owned subsidiaries. A group of 603 foreign firms were drawn from diverse industry organizations and business societies.

The questionnaires were mailed to the chief executive officers (CEOs) of sample firms first. As a way of obtaining a balanced perspective on each sample and increase interrater reliability, four additional questionnaires (two in English and two in Korean) were sent to other senior executives (such as CFOs, vice presidents or deputy general managers, etc.) in one company. After personal contact, telephone, fax, and e-mail to request that the respondents complete the questionnaire, 282 valid questionnaires from 133 initial sample companies were collected, with a 22.1% of response rate at the firm-level (133/603) and a 9.4% of response rate at the individual executive-level (282/(603*5)). In cases where multiple responses were collected from a same subsidiary, the response values were averaged to a single value.

Since this study aims to examine relationships associated with marketing knowledge transfer and marketing performance, the final sample was reduced from 133 subsidiaries to 114 ones performing only marketing-related tasks. Excluded were subsidiaries performing any of R&D and manufacturing activities. As a way of assessing potential nonresponse bias, early responses were compared with late responses on some key variables such as firm age, sales, nationality (Armstrong and Overton, 1977). The results revealed no significant differences. Also, a validity check on the key respondents' qualifications was conducted (Rindfleisch and Moorman, 2001). Respondents were asked to report on their positions and number of years employed with

their company. All of the respondents were either CEO or senior executives who were familiar with their company's operations and had worked for their firm for more than seven years on average.

4.2 Operationalization of the Variables

1. Adaptability

External knowledge in this study is limited to the knowledge held by a MNC's headquarters and other subsidiaries. Adaptability of external knowledge refers to similarity of the external knowledge to the Korean subsidiary's endogenous knowledge, and the acceptability of the external knowledge to the local subsidiary's business operations. The items were adapted from the study of Jensen and Szulanski (2004). The reliability of the items is 0.828.

2. Knowledge transfer

Knowledge transfer in the study refers to marketing knowledge transferred from the headquarters and other subsidiaries to the Korean subsidiary. The respondents were asked to what extent the Korean subsidiary had received knowledge pertaining to marketing/sales and customer service from the headquarters and other subsidiaries. The measurement was based on the work of Björkman et al. (2004) and Schulz (2001). The reliability of the items is 0.918.

3. Marketing performance

Firm performance is usually assessed by comparing the value that an organization creates using its productive assets with the value that owners of these assets expect to obtain (Barney, 2002). Performance, however, is an ambiguous concept because it can be examined and assessed from different stakeholders' point of view. There are a wide variety of techniques for measuring performance but few indicators of performance are widely accepted.

Marketing performance in this study was measured by using a subjective assessment in terms of product/service quality, new market development, new product/service development and market share. These items were based on the work of Powell et al. (1996). There are some precedents using subjective measures for evaluating performance (Youndt et al., 1996) and prior research has shown that subjective measures of firm performance correlate well with objective measures of performance (Geringer and Hébert, 1991). The reliability of the items is 0.812.

4. Absorptive capacity

Absorptive capability, divided into potential absorptive capacity and realized absorptive capacity, plays as a moderating variable in this study. Based on Zahra and George's study (2002), potential absorptive capacity refers to the ability of a firm to acquire and assimilate external

knowledge, while realized absorptive capacity refers to the ability of a firm to transform and exploit external knowledge. These two variables were not measures of an individual's ability, but the measures of the ability of a whole subsidiary. The construct consists of six items for potential absorptive capacity and seven items for realized absorptive capacity, with the reliability of 0.846 and 0.809, respectively. All the items were adapted from the work of Jansen et al. (2005).

5. Socialization

The variable of socialization was measured with three items of reporting the number of managers at the Korean subsidiary who had participated in socialization activities such as business trips, training programs, task forces, committees where interactions among managers from the entire organization units take place and in some cases, are encouraged and even required. The three values from the items were averaged to take a single value indicating the level of socialization within MNCs. Because this measure is not a latent variable, its reliability value cannot be obtainable. The items were based on the study of Roth and O'Donnell (1996).

6. Locally developed knowledge

The variable of locally develop knowledge in the study measures the extent to which the Korean subsidiary has developed its own marketing related knowledge on the domestic market. The two items were based on the study of Björkman, et al. (2004). The reliability of the items is 0.930.

4.3 Control Variables

To prevent potential confounding effects that may be caused by the influence on the dependent variable of other variables than the variables in the research framework, two variables of national culture and firm size are included as control variables.

1. National culture

Extant research posits that the difference of national cultures in the knowledge transfer process can be a significant impediment to successful knowledge exchange and sharing activity, because culture heavily influences communication and understanding of source and receiving organizational units (Randolph and Sashkin, 2002). The two items were adapted from the study of Simonin (1999) and their reliability is 0.826.

2. Firm size

Because firm size is found to significantly influence processes and outcomes of organizational activities (Roth and O'Donnell, 1996), it is included as a control variable with two indicators: sales and the number of employees. The indicators were log-transformed to avoid

skewness.

The results of factor analysis and reliability test for each construct with detailed survey items are listed in table 1. The reliability values for the constructs range from 0.809 to 0.930, all above the cutoff suggested by Bagozzi and Yi (1988).

Insert table 1 about here

5 Results

Table 2 shows a correlation matrix for the dependent, independent, and control variables. We used hierarchical linear regression to test our hypotheses. Before performing the regression analyses, a potential problem of multicollinearity were remedied by mean-centering all the variables (Aiken and West, 1996). In addition, the VIF (variance inflation factor) values generated from the regression analyses were found to be less than 10, which is a common cutoff value as an indicator of multicollinearity.

Insert table 2 about here

Hypothesis 1 examines the relationship between adaptability of external knowledge and knowledge transfer. The coefficient result of the regression model 1 shows that the impact of adaptability (ADT) on knowledge transfer (KNT) is statistically significant at the 0.01 significance level. Thus, Hypothesis 1 is accepted by this result. Hypothesis 2 predicts that potential absorptive capacity (PAC) will moderate the effect of adaptability of knowledge on the level of knowledge transfer. The interaction term (ADT*PAC) of model 2 indicates that the moderating effect is statistically significant at the 0.01 significance level. This result indicates that a firm's potential absorptive capacity (PAC) accelerates the impact of the acceptability of external knowledge on knowledge transfer. Thus, Hypothesis 2 is accepted.

Hypothesis 3 explores the moderating effect of socialization on knowledge transfer. Model 3 in table 3 shows that the interaction effect (ADT*SOC) of adaptability and socialization is not statistically significant. This result indicates that socialization activities within an MNC cannot be effective in stimulating the impact of adaptability of external knowledge on marketing knowledge transfer.

Hypothesis 4 examines the relationship between marketing knowledge transfer and marketing performance. The coefficient of knowledge transfer (KNT) in model 4 shows that the impact of knowledge transfer on marketing performance (MPF) is statistically significant at the 0.01 level. Hypothesis 4 is supported by this result.

Hypothesis 5 asserts that realized absorptive capacity (RAC) will significantly moderate the degree to which marketing knowledge transferred from the headquarters and other subsidiaries influences marketing performance. Model 5 in table 3 presents that the interaction effect (KNT*RAC) is significant at the 0.10 level. This result implies that a firm's realized absorptive capacity enhances the impact of knowledge transfer on marketing performance. This result supports Hypothesis 5.

Hypothesis 6 tests the moderating effect of locally developed knowledge on marketing performance. As shown in model 6 in table 3, the interaction effect (KNT*LKN) on performance is statistically significant at the 0.01 level. This result supports Hypothesis 6 in that a firm's local knowledge increases the impact of knowledge transfer on marketing performance.

The results of the hierarchical regression analyses are reported in table 3.

Insert table 3 about here

6 Discussion and Implications

Organizational researchers have long been concerned with the question of how firms can build and sustain competitive advantage (Day, 1994). Developing an effective and efficient knowledge management system has been considered a means of achieving this goal (Gupta and Govindarajan, 1991). Scholars have recognized that a firm is a body of knowledge and the value of this intangible asset (knowledge) far exceeds that of other physical properties (Grant, 1996). Teece et al. (1997) argues that creating successful new products lies at the firm's fundamental core-intangible assets or knowledge. Firms that use knowledge effectively are able to innovate quickly and take advantage of prescient opportunities (Lynn et al., 1999). In addition to knowledge creation, shared knowledge obtained through transfer from external sources constitutes an important resource underlying product/service development capability and an organization's overall competence.

Knowledge is regarded as the foundation and the main source for a firm's ability to develop competitive advantages. Firms that obtain valuable knowledge and are capable of

applying it throughout their organizations may sustain their competitive edge. Thus, knowledge transfer among geographically separated units or within a same unit is recognized as one of the significant concerns for organizations. However, due to the ‘stickiness’ of knowledge, such transfer of knowledge is believed to be inherently problematic. It is important to develop a sophisticated understanding of the variables that affect the efficacy of knowledge transfer.

Based on the knowledge-based view, this study focuses on transfer of knowledge from the MNCs’ headquarters and other subsidiaries to their overseas subsidiaries, and the resulting performance implications constitute the main research theme of this study. This study investigates the causal relationships among adaptability of external knowledge, knowledge transfer, and marketing performance. And it simultaneously tests the moderating roles of absorptive capability and socialization in knowledge transfer as well as the moderating role of local knowledge for marketing performance.

The results of the empirical analyses significantly support all of the proposed hypotheses except hypothesis 3. Adaptability of external knowledge promotes knowledge transfer and the relationship is moderated by a firm’s potential knowledge absorptive capacity. On the other hand, knowledge transfer improves a firm’s marketing performance and a firm’s realized knowledge absorptive capacity and local marketing knowledge moderate the relationship.

The theoretical and practical implications of the findings in this study are as follows: (1) firms must take seeking, transferring, sharing and exploiting of external knowledge into serious consideration, while simultaneously creating knowledge to support the necessary business operations, remain competitive, and achieve superior performance. (2) Firms should continuously seek to develop their knowledge absorptive capacity (both potential and realized capacity) to absorb, learn and utilize valuable external knowledge. (3) Firms should emphasize not only absorptive capacity, but also development of local knowledge. Firms with strong absorptive capability and local knowledge can learn and transfer more external knowledge, which can be translated into greater levels of competence and performance.

7 Conclusions and Limitations

Although this study sheds some light on how absorptive capacity and local knowledge influence knowledge transfer and marketing performance, it has certain limitations. First, this study focuses on knowledge transfer from the MNC headquarters and peer subsidiaries to the focal overseas subsidiary. Data were collected from only one side of the relationship. Although efforts were made to reduce the amount of response bias, dyadic data would be more helpful. Second,

this study is an attempt to empirically test organizational knowledge transfer. The knowledge transfer process, however, is not static but dynamic. Longitudinal data should be collected to delineate the dynamic nature of knowledge transfer.

Many issues remain to be examined in great detail in the future, such as dyadic knowledge exchanges between MNC headquarters and units, values of the source unit's knowledge stock, cognition and attitude of the source unit and the receiving unit regarding knowledge transfer, roles of the motivational disposition of the source unit in terms of knowledge sharing and teaching, relationship between the source unit and the receiving unit, and an organization's institutional mechanisms such as control and human resource management, and so forth. Future research efforts are warranted to address all these issue above and provide new insights on the links of knowledge transfer and performance within the boundary of MNCs.

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Figure 1. Research Framework

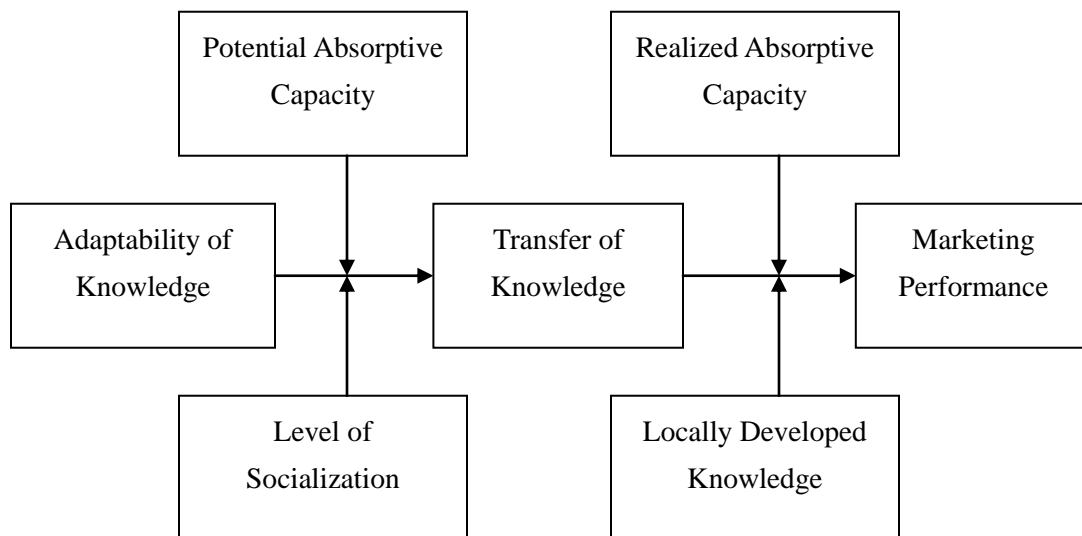


Table 1. Survey Items and Factor Analysis of Core Constructs

Construct	Item	Survey Item Description	Factor Loadings	Reliability
Adaptability (ADT)	ADT1	Knowledge of the HQ is similar to ours.	0.830	0.828
	ADT2	Knowledge of the HQ is acceptable to ours.	0.853	
	ADT3	Knowledge of other subsidiaries is similar to ours.	0.780	
	ADT4	Knowledge of other subsidiaries is acceptable to ours.	0.811	
Knowledge Transfer (KNT)	KNT1	To what extent has the Korean subsidiary received marketing/sales knowledge from the HQ/other subsidiaries?	0.934	0.918
	KNT2	To what extent has the Korean subsidiary received customer service knowledge from the HQ/other subsidiaries?	0.934	
Marketing Performance (MPF)	MPF1	To what extent are you satisfied with product/service quality?	0.813	0.812
	MPF2	To what extent are you satisfied with new market development?	0.845	
	MPF3	To what extent are you satisfied with new product/service development?	0.861	
	MPF4	To what extent are you satisfied with market share?	0.763	
Potential Absorptive Capacity (PAC)	PAC1	We frequently acquire new knowledge from the HQ/other subsidiaries.	0.936	0.846
	PAC2	We frequently visit the HQ/other subsidiaries to acquire new knowledge.	0.801	
	PAC3	We frequently collect new information through meetings with industry experts, consultants, and customers.	0.830	
	PAC4	We are fast to recognize any changes in the environment such as competition, regulation, demands, demography, etc.	0.755	
	PAC5	New opportunities to serve our customers with better products/services are quickly understood.	0.790	
	PAC6	We frequently learn and assimilate new knowledge through meetings with industry experts, consultants, and customers.	0.880	

Realized Absorptive Capacity (RAC)	RAC1	We record and store newly acquired knowledge for future reference.	0.811	0.809
	RAC2	We hardly miss the opportunities for our company from transferred knowledge.	0.931	
	RAC3	We share practical experiences.	0.786	
	RAC4	We clearly know how activities within our company should be performed.	0.838	
	RAC5	We constantly consider how to better exploit transferred knowledge.	0.914	
	RAC6	We have no difficulty implementing new products and services.	0.829	
	RAC7	We have a clear division of roles and responsibilities.	0.697	
Locally Developed Knowledge (LKN)	LKN1	To what extent has the Korean subsidiary developed the local marketing and sales knowledge?	0.946	0.930
	LKN2	To what extent has the Korean subsidiary developed the local customer service knowledge?	0.946	
National Culture (NCT)	NCT1	The national culture of the HQ differs from the Korean culture	0.911	0.826
	NCT2	Language differences are a major obstacle in communicating with, understanding the HQ or other subsidiaries	0.911	

Table 2. Correlation Matrix

	1	2	3	4	5	6	7	8	9	10
1. KNT	-									
2. MPF	.840**	-								
3. NCT	.364	.449*	-							
4. REV	.040	.157	.148	-						
5. EMP	.133	.168	.220	.127	-					
6. ADT	.847**	.881**	.393*	.121	.190	-				
7. PAC	.875**	.910**	.433*	.153	.214	.929**	-			
8. RAC	.874**	.926**	.397*	.144	.208	.925**	.964**	-		
9. SOC	.386*	.396*	.544**	.290	.524**	.362*	.413*	.410*	-	
10. LKN	.713**	.828**	.439*	.159	.182	.795**	.845**	.833**	.340*	-

Note: KNT=Knowledge transfer, MPF=Marketing performance, NCT=National culture, REV=Sales, EMP=Number of employees, ADT= Adaptability of knowledge, PAC=Potential absorptive capacity, RAC=Realized absorptive capacity, SOC=Socialization, LKN=Local knowledge.

Sample size N = 114;

* Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .01 level (2-tailed).

Table 3. Results of Hierarchical Linear Regression Analysis ^a

	Model 1 ^b	Model 2 ^b	Model 3 ^b	Model 4 ^c	Model 5 ^c	Model 6 ^c
Constant	3.421*** (0.181)	3.505*** (0.164)	4.385*** (0.562)	-0.280† (0.165)	0.006 (0.116)	-0.090 (0.133)
Controls						
NCT	0.038 (0.066)	-0.010 (0.062)	-0.021 (0.073)			
REV ^d	-0.044 (0.040)	-0.058 (.037)	-0.056 (0.041)	0.072† (0.037)	0.035 (0.027)	0.052* (0.030)
EMP ^d	-0.023 (0.050)	-0.038 (0.045)	-0.053 (0.054)	0.033 (0.046)	0.012 (0.032)	0.012 (0.037)
Direct Effects						
ADT	0.914*** (0.059)	0.260† (0.133)	0.908*** (0.135)			
PAC		0.721*** (0.134)				
SOC			0.168† (0.092)			
KNT				0.767*** (0.047)	0.139* (0.068)	0.488*** (0.054)
RAC					0.757*** (0.072)	
LKN						0.387*** (0.052)
Interactions						
ADT*PAC		0.019** (0.009)				
ADT*SOC			0.020 (0.023)			
KNT*RAC					0.043† (0.023)	
KNT*LKN						0.059** (0.028)
R ²	0.722	0.782	0.731	0.718	0.867	0.824
Adj. R ²	0.712	0.769	0.715	0.711	0.861	0.816
F-value	70.158***	63.266***	47.907***	92.714***	140.010***	99.588***

a N=114. Standard errors are in parentheses; b Dependent variable is level of knowledge transfer

c Dependent variable is marketing performance; d Logarithm; † p < .10, * p < .05, ** p < .01, *** p < .001