

**“Knowledge Appropriation vs. Knowledge Sharing”:**

**A Comparative Case Study of  
Positive and Negative Effects of Localization  
in Asian Subsidiaries of Japanese MNEs**

*Takashi HAYASHI, Faculty of Economics*

*Yuji YUMOTO, Faculty of Business Administration*

*Nanzan University*

April 2020      NO.2001

**“Knowledge Appropriation vs. Knowledge Sharing”:  
A Comparative Case Study of Positive and Negative Effects of Localization  
in Asian Subsidiaries of Japanese MNEs**

*Takashi HAYASHI, Faculty of Economics, Nanzan University*

*Yuji YUMOTO, Faculty of Business Administration, Nanzan University*

e-mail: takashi@nanzan-u.ac.jp

April 2020

**Abstract:**

Based on the findings in author’s interviews to Asian subsidiaries of Japanese MNEs, this study focuses on an interesting contrast of “knowledge appropriation vs. knowledge sharing”. Using “G vs. W”-model framework on the misalliance problem in gray areas management, the three interviewed cases are compared where the relatively detailed information was available on the decision making by the promoted HCNs, so that the arising mechanism for the opposing results of either “knowledge appropriation vs. knowledge sharing” is examined.

Looking into the observed differences among these three cases, “the two key explanatory factors” are pointed out as “a pair of different set of conditions” which can lead to the opposing results of “knowledge appropriation vs. knowledge sharing”; i.e., (i) “degree of dependence on personal skills and knowledge of core members” is likely to raise incentives for the promoted HCNs for “knowledge appropriation” and (ii) “relative size of prospects for growing opportunities” is likely to raise incentives for them for “knowledge sharing”. Then, several case specific factors (e.g., market condition, business characteristics, communication skill of PCNs, etc.) are pointed out as underlying reasons for relative sizes of these key explanatory factors. Furthermore, looking into a dynamic feedback of the first key explanatory factor, a pair of contrasting mechanisms of “vicious cycles” (in case of “knowledge appropriation”) vs. “virtuous cycles” (in case of “knowledge sharing”) is discussed.

**Keywords:**

knowledge appropriation, knowledge sharing, gray areas management, Japanese MNEs, localization, subsidiary performance

## 1. Introduction

### 1.1 Positive vs. Negative Effects of Localization in Foreign Subsidiaries of MNEs>

In the existing literature on the localization of foreign subsidiaries for MNEs, or that of the replacement of expatriate PCNs (Parent Country Nationals) to HCNs (Host Country Nationals), both positive and negative effects on the performance of MNEs have been discussed.

Regarding the positive effects of localization, or the possible benefits for the staffing policy of HCNs to higher executive positions, as illustrated in Fig.1, the following three major factors have been pointed out in the literature which would enhance the performance of MNEs' foreign subsidiaries.<sup>1</sup>

**(1) Mobilization of Local Resources:** HCNs are knowledgeable about the local context, and they are more capable of exploring and mobilizing the local resources [Tan and Mahoney (2006), Widmier et. al. (2008), Ando (2014)].

**(2) Retainment of Competent HCNs:** With wider opportunities for their career development, the morale and commitment of HCNs to the subsidiaries as well as to the MNEs are to be improved [Selmer (2004), Fayol-Song (2011)].

**(3) Gaining Legitimacy within the Host Country:** Favorably recognized by the host country government and the society, there might be more chances to gain access to scarce local resources and information [Selmer (2004), Law et.al. (2009)].

**(Insert Fig.1 about here)**

On the other hand, regarding the negative effects of localization, as illustrated in Fig.2, the following two major problems have been discussed in the literature which would lower the performance of MNEs' foreign subsidiaries.

**(1) Inefficient Knowledge Transfer:** MNEs are required to transfer tacit knowledge from their parents to foreign subsidiaries to exploit their firm specific resources. Here, compared with PCNs, HCNs are likely to be less efficient in the transfer of tacit knowledge as they are less familiar with the context and/or idiosyncrasies of the parents [Gong (2003), Wang et al. (2009), Lam and Yeung (2010)].

**(2) Ineffective Control:** A control problem arises if the subsidiary management makes decisions that are not congruent with those desired by their parents, where the subsidiary management may shirk their tasks and pursue their self-interest. Here, compared with PCNs,

---

<sup>1</sup> In the literature on Japanese MNEs, it has been widely discussed that they are likely to take "ethno-centric" staffing policy in their foreign subsidiaries, and their pace of localizing HCNs to their top executives has been much slower than that of US and European MNEs, so that the height of the "glass-ceiling" or "rice-paper ceiling" is very low, although this tendency has been gradually changing [Tung (1982), Bartlett and Yoshihara (1988), Kopp (1994), Legewie (2002), Oki (2013), Furusawa et.al. (2016)].

HCNs are likely to be less effective in managing this problem, as they are less likely to share the values and goals of the parent, and less likely to understand the strategies of the parent [O'Donnell (2000), Gong (2003), Tan and Mahoney (2006), Ando (2014)].

**(Insert Fig.2 about here)**

Furthermore, as the underlying factors for these two major problems, “cultural distance” as well as “institutional distance” between home country and host country have been pointed out. i.e., In cases where the two countries are culturally and institutionally distant, the information asymmetry between the parent and her foreign subsidiary as well as the level of uncertainties perceived by the parent are likely to be greater, and thus, it would be more difficult for the parent to transfer their tacit knowledge as well as to manage the control problem. And hence, MNEs would choose “not to localize foreign subsidiaries”, as they assign more numbers of “PCNs” (rather than “HCNs”) who are likely to be more capable in managing these two problems [Gong (2003), Tan and Mahoney (2006), Ando (2014)]<sup>2</sup>.

In brief, as shown in Fig.1 & Fig.2, relating to the localization of HCNs, there are several important factors which have significant impacts on the performance of foreign subsidiaries for both sides of “positive effects and negative effects”, and their “total net effects” might be either positive or negative depending on the relative size and/or importance of those factors. In addition, focusing on the negative effects, the cultural and institutional distances between home and host countries can be the major underlying sources for the two main problems of “inefficient knowledge transfer” and “ineffective control”<sup>3</sup>.

---

<sup>2</sup> In the literature on Japanese MNEs, as for the underlying factors for their “slower pace of localization”, the cultural factors, or the cultural distance between Japan and other countries has been discussed.

For instance, in Bartlett and Yoshihara (1988), among those cultural factors in Japanese management system, the crucial roles of consensus building and shared decision making with sharing cultural values and participating an established internal network with an ability to communicate intensively in Japanese were pointed out. In Yasumuro (1982), as the key aspect of the Japanese management system, the notion of “high context system” [Hall (1976)] was pointed out, where the culturally based values and/or norms were to be shared for being “insiders” as they are crucial for their smooth and efficient communication.

Then, in Ishida (1982, 1986), as will be discussed later, relating to this “high context system”, the misalliance problem between Japanese MNEs and local conditions in foreign subsidiaries was pointed out, which was on “gray areas” or “the areas of tasks or jobs which are not clearly defined and/or assigned to individual members”.

In this study, based on the findings in author’s interviews, this particular type of “misalliance problem” by Ishida (1982, 1986) is going to be focused as well as its “mitigating process”, which can play a crucial role in understanding the contrasting nature of “knowledge appropriation vs. knowledge sharing” in Asian subsidiaries of Japanese MNEs.”

<sup>3</sup> These “mixed results” for the total net effects of the localization have been observed in the existing empirical studies. For instance, as for the estimated results in foreign subsidiaries of Japanese MNEs on the positive & negative effects of localization associated with the cultural and institutional distance, the following findings were pointed out.

In Gong (2003), using the data set in 2000, the following three results were obtained, i.e., (1) With a greater cultural distance, the ratio of HCNs in top management is lowered

## 1.2 Contrasting Findings on “Knowledge Appropriation vs. Knowledge Sharing”

On the other hand, the author carried out his own interview researches to Asian subsidiaries of Japanese MNEs (2007: 20 cases, 2013: 30 cases), where both the positive and negative effects of the localization were observed as discussed in the literature<sup>4</sup>. Then, looking into more details on these findings, there was a very interesting contrast of “knowledge appropriation vs. knowledge sharing”. i.e., In some interviewed cases, among the newly promoted HCNs, “knowledge appropriation” was observed, which would be a crucial underlying factor for the negative effects of localization. Whereas, in some other cases, among the newly promoted HCNs, “knowledge sharing” was observed, which would be, at this time, a crucial underlying factor for the positive effects of localization.

In the literature of economics and business studies, as one type of agency problems, “knowledge appropriation” has been discussed where a certain member of an organization attempts to appropriate some useful knowledge and/or information (rather than sharing them with other members of the organization) for some reasons such as a fear in him/herself that his/her position might be overtaken by successors<sup>5</sup>.

And then, in some cases of the author’s interviews, this problem was observed, i.e., after some HCNs had been promoted to the division heads, they tried to appropriate their “context specific knowledge” only to themselves, so that the learning opportunities for the problem managing capabilities were excluded from their subordinate members. In contrast, in some other cases, the exactly opposing image of “knowledge sharing” was observed, where the newly promoted HCNs were willing to share their knowledge on the “managing capability of gray areas” with their subordinate members of their divisions.<sup>6</sup>

---

(i.e., slower speed of localization), (2) Even with a greater cultural distance, as the experience of local operation grows, the ratio of HCNs becomes higher (i.e., progresses in localization due to the effects of learning by doings), (3) With a greater cultural distance, the negative effect of the localization becomes greater.

On the other hand, in Ando (2014), using the panel data set from 1999 to 2008, the following two results were obtained, i.e., (1) Overall, as the ratio of HCNs grows, labor productivity becomes greater (i.e., positive effect is dominant), (2) However, as institutional distance grows, this positive effect diminishes, and the total net effects can be negative.

<sup>4</sup> The brief overview of author’s interviews in 2007 and 2013 is in Table 3 in Appendix.

<sup>5</sup> For instance, in Shleifer and Vishney (1989), this problem was analyzed where managers are likely to entrench themselves by making manager-specific investments that make it costly for shareholders to replace them. For another instance, in Prendergast (1995), this problem was analyzed where managers are likely to be engaged in too many tasks with exerting too much effort on his/her own tasks, while delegating too few tasks to his/her subordinates.

On the other hand, in the context of human resource management in foreign subsidiaries of Japanese MNEs, this problem has been pointed out in JMF (1997) and JRC (2012) etc. as an important challenge for Japanese MNEs, whereas, not sufficient studies have yet been carried out to examine (1) Why and under which conditions, is this problem likely to take place? and (2) For a foreign subsidiary of Japanese MNE, how to manage this problem? etc...

<sup>6</sup> As for the issue of “knowledge sharing”, in various preceding researches on the organizational learning [e.g., Senge (1990)] as well as those on the knowledge management

### 1.3 Main Research Question

Noting this interesting contrast in mind, this study focuses on the three cases in the author's interviews in 2007 & 2013, where either of the "knowledge appropriation" or "knowledge sharing" was clearly observed, and the relatively detailed information on the decision making by the promoted HCNs on "knowledge appropriation vs. knowledge sharing" was available. Then, comparing these three cases on their possible differences as well as on their common characteristics, the following main research question is going to be explored<sup>7</sup>.

Q : How and why would the localization of HCNs cause the opposing results of "knowledge appropriation vs. knowledge sharing" in some Asian subsidiaries of Japanese MNEs?

Here, in exploring this question, the following two findings in author's interviews on the contrasting nature of "knowledge appropriation vs. knowledge sharing" are to be noted.

Firstly, examining the "key elements of the knowledge" to be appropriated or to be shared by the promoted HCNs, in either cases of "knowledge appropriation" or "knowledge sharing", these elements seem to be closely associated with the managing capability on "gray areas" or "the areas of mutual responsibility", i.e., the areas of tasks or jobs which are not clearly defined and/or assigned to individual members, as was discussed in Ishida (1982, 1986) and Hayashi (2005, 2012, 2018).

In their studies, it was discussed that "these gray areas" are closely associated with the "misalliance problem" arising from the "cultural distance" or the gap in the "notion on tasks or jobs" between Japanese MNEs and the local conditions, which are stylized as "J(Japanese Concept) vs. O(Other Concept)" [Ishida (1986, Fig.2 (p107))], or its modified version of "G(gray areas engagement) vs. W(well-defined engagement)"-model [Hayashi (2012 etc.)]. i.e., Japanese expatriates (PCNs) are relatively familiar with and capable of "flexible management on gray areas", whereas HCNs are relatively comfortable with and capable of "well-defined engagement with the clearly defined jobs or tasks"<sup>8</sup>.

Thus, noting that this stylized misalliance problem was observed in either cases of

---

[e.g., Nonaka and Takeuchi (1995)], the significance for "knowledge sharing" has been discussed and the possible manners for its improvement has been continually explored. Then, following their discussions, this study is trying to explore another set of questions, i.e., why, how, and depending on which conditions, can both the contrasting observations of "knowledge appropriation" and "knowledge sharing" take place?

<sup>7</sup> On the three cases of our focus, please see the descriptions in section 3 as well as those in Table 4 in Appendix.

<sup>8</sup> In Hayashi (2005, 2012), focusing on the graphic characteristics of the misalliance problem, this framework was named "○&□"-model. On the other hand, in Hayashi (2018), focusing on the key notion of "gray areas engagement vs. well-defined engagement", this framework was named "G vs.W"-model.

“knowledge appropriation” and “knowledge sharing”, “G vs. W-model” is used as the common framework to illustrate their contrasting nature.

Secondly, the contrasting nature of “knowledge appropriation vs. knowledge sharing” is going to be captured as the joint problem of “ineffective control” and “inefficient knowledge transfer” in following manners.

As discussed above, in the existing literature, “inefficient knowledge transfer” and “ineffective control” have been pointed out as the two major distinct problems of the localization, while not enough attentions have been paid to the possible overlapping of these two problems. i.e., The former has been mainly discussed in the context of the “resource-based view”, where the crucial roles of productive and managerial resources of the firm are emphasized for the decision makings of managers. The latter has been mainly discussed in the context of the “agency theory” and “transaction cost economics”, where the crucial roles of the agency costs and the types of contracts are emphasized for their decision makings [Gong (2003), Tan and Mahoney (2006)].

On the other hand, as will be discussed in Section 3 for case X, in cases of “knowledge appropriation”, the two major problems of “ineffective control” and “inefficient knowledge transfer” would take place jointly. i.e., The behavior of newly promoted HCNs cannot be effectively controlled, where they cannot be well motivated to share the context specific knowledge and the learning opportunities with their subordinate members. And then, a serious problem takes place in the knowledge transfer and skill development in Asian subsidiaries. i.e., With the framework of “G vs. W-model”, due to this knowledge appropriation, the stylized mitigating process of the above-mentioned misalliance problem, or the skill development of stepwise hybrid modification would be significantly stagnated.

In contrast, just in an opposite manner, as will be described in Section 3 for case Y & case Z, in cases of knowledge sharing, the dual steady progresses of “effective control” and “efficient knowledge transfer” would take place jointly. i.e., The behavior of newly promoted HCNs can be effectively controlled, as they are well motivated to share the context specific knowledge and the learning opportunities with their subordinate members. And then, due to this knowledge sharing, the stylized mitigating process of the above-mentioned misalliance problem, or the skill development of stepwise hybrid modification would be steadily promoted.

#### **1.4 Some Light on Negative vs. Positive Effects of Localization?**

Here, these two findings on their contrasting nature can be illustrated as Fig.3 [knowledge appropriation] and Fig.4 [knowledge sharing], while the previous studies on the negative effects of localization in the existing literature were summarized as Fig.2. Then, comparing these three figures at a time, we might be able to shed some light on the arising mechanism of both negative & positive effects of the localization in following two manners, although their applicability must be carefully considered.

**(Insert Fig.3 & Fig.4 about here)**

Firstly, unlike previous studies which have examined the negative effects of “ineffective control” and those of “inefficient knowledge transfer” respectively as the two distinct problems of the localization (Fig.2), this study is going to examine the negative effects of these two problems as the jointly occurring problem associated with the “knowledge appropriation” (Fig.3). In addition, as the mirror image of this jointly occurring problem, this study is going to examine the positive effects of “effective control” and those of “efficient knowledge transfer” as the jointly occurring performance associated with “knowledge sharing” (Fig.4).

Here, it is also interesting to note that, as will be discussed in Section 4, there can be a dynamic feedback mechanism of “ineffective control & inefficient knowledge transfer” in case of “knowledge appropriation”, whereas, there can be an opposite dynamic mechanism of “effective control & efficient knowledge transfer” in case of “knowledge sharing”. i.e., In case of “knowledge appropriation”, due to the dynamic changes in the first key explanatory factor of “degree of dependence on personal skills & knowledge”, there can be “vicious cycles” of the jointly occurring problem over time (Fig.8). In contrast, in case of “knowledge sharing”, due to the opposing dynamic changes in this first key explanatory factor, there can be the contrasting “virtuous cycles” of the jointly occurring performance over time (Fig.10).

And secondly, unlike previous studies, this study is going to illustrate a rather subtle relationship between “cultural distances” and “positive & negative effects of the localization” as follows.

As discussed above, previous studies have pointed out the following general relationship between them, i.e., greater cultural and institutional distances would cause negative effects of the localization, as they are associated with greater degree of information asymmetry as well as the greater levels of uncertainties, which would make it more difficult for the parent to transfer their tacit knowledge to their subsidiaries as well as to manage the agency problem to control their subsidiaries (Fig.2).

On the other hand, this study is going to illustrate a certain contingent relationship between “cultural distances” and “positive & negative effects of the localization” as follows. As discussed above, based on the findings of author’s interviews, the stylized skill development of Asian subsidiaries is illustrated as the “mitigating process” of the “misalliance problem”, which is due to the cultural distance, or the “gap in notion on tasks or jobs” between Japanese MNEs and the local conditions.

Then, in case of “Conditions A” (Fig.3), “knowledge appropriation” takes place by the newly promoted HCNs, and the stylized mitigating process of “misalliance problem” would be seriously stagnated, so that the cultural distance can be viewed as a crucial



underlying source for the negative effects of the localization. Whereas, in case of “Conditions B” (Fig.4), “knowledge sharing” takes place by the newly promoted HCNs, and the stylized mitigating process of “misalliance problem” would be steadily promoted, so that, this time, the cultural distance can be viewed as a crucial underlying source for the positive effects of the localization.

Hence, in the following sections, with these research interests in mind, we are going to examine the proposed main research question by exploring a pair set of “Conditions A vs. Conditions B” as shown in Fig.3 and Fig.4, which would lead to the opposing results of “knowledge appropriation vs. knowledge sharing”.

### **1.5 Outline of the Study**

In section 2, as a preliminary discussion for the examination of the main research question in section 3, “G vs. W-model” is overviewed as the common framework to compare the interviewed cases, where the stylized mitigating process of the misalliance problem is illustrated as the key notion to contrast the nature of “knowledge appropriation vs. knowledge sharing”.

In section 3, by comparing the observed differences as well as the common characteristics among the three interviewed cases with using the “G vs. W”-model, a pair of different set of conditions, or “Conditions A vs. Conditions B” in Fig.3 and Fig.4 is explored for a tentative answer to our main research question. Then, as the two key explanatory factors for the relative incentives of the promoted HCNs, (i) “degree of dependence on personal skills and knowledge of core members” and (ii) “relative size of prospects for growing opportunities” are pointed out, which would lead to the contrasting findings of “knowledge appropriation vs. knowledge sharing”. Furthermore, several case specific factors are pointed out as possible underlying reasons for the relative importance of these two key explanatory factors.

In section 4, these analytical findings are summarized, and their theoretical implication for the dynamic feedback of “vicious cycles vs. virtuous cycles” of “subsidiary control & knowledge transfer” is discussed, while addressing possible topics for further researches.

## **2. “Gray Areas Engagement vs. Well-defined Engagement” Model and Contrasting Nature of “Knowledge Appropriation vs. Knowledge Sharing”**

In this section, as the preliminary discussions for the section 3, the framework of “G vs. W” (“gray areas engagement vs. well-defined engagement”)-model [Hayashi (2005, 2012, 2018)] is overviewed to illustrate the contrasting nature of “knowledge appropriation vs. knowledge sharing” as follows<sup>9</sup>.

In section 2.1, noting that the key elements of the knowledge for both “knowledge appropriation” and “knowledge sharing” are closely associated with the managing capability of “gray areas” [Ishida (1982, 1986), Hayashi (2012 etc.)], the framework of “G vs. W”-model is described, which illustrates the misalliance problem between PCNs (Japanese expatriates) & HCNs (local employees). In section 2.2, using this framework, the stylized skill development in Asian subsidiaries is illustrated as a dynamic process of mitigating this misalliance problem, i.e., a stepwise hybrid of “1st step & static modification” and “2nd step & dynamic modification”. In section 2.3, using this framework as well as its stylized skill development, the contrasting nature of “knowledge appropriation vs. knowledge sharing” is illustrated.

### **2.1 Misalliance Problem and “Gray Areas vs. Well-defined Engagement” Model**

“G vs. W” (“gray areas engagement vs. well-defined engagement”)-model [Hayashi (2012 etc.)] is a modified version of “J(Japanese Concept) vs. O(Other Concept)”

---

<sup>9</sup> In Hayashi (2005), based on the findings in author’s interviews in 1998 and 2002, the following points were discussed on the human resource management in Asian subsidiaries of Japanese MNE, i.e., (1) Asian subsidiaries were likely to face “misalliance problem in gray areas management” as had been discussed in Ishida (1986 etc.), (2) The mitigating process of this problem was stylized as “stepwise hybrid modification”, and (3) To illustrate a dynamic picture of this mitigating process, some modifications were made to the original framework by Ishida (1986 etc.).

In Hayashi (2012), based on the findings in author’s interviews in 2007, the following points were discussed, i.e., (1) In Asian subsidiaries, steady progresses in the stepwise hybrid modification had been observed since 2002, (2) In Japanese parents, facing the deterioration in the original advantages of “G-model”, some elements of “W-model” had been implemented, so that the trend of convergence between Japanese parents and Asian subsidiaries was observed.

In Hayashi (2018), based on the findings in author’s interviews in 2007 and 2013, the following points were discussed, i.e., (1) Among interviewed cases, during the process of the stepwise hybrid modification, there was an interesting contrast of “knowledge appropriation vs. knowledge sharing”, (2) As the key explanatory factors for this contrast, (i) “degree of dependence on personal skills and knowledge” and (ii) “relative size of prospects for growing opportunities” seemed to be crucial.

Then, in this study, based on the discussions in Hayashi (2018), the following points are to be analyzed, i.e., (1) The arising mechanisms of “knowledge appropriation vs. knowledge sharing” are explored, where a pair of different set of conditions which leads to the observed opposing results is examined, (2) Viewing as a jointly occurring problem of “ineffective control” & “inefficient knowledge transfer”, a possible dynamic feedback of “knowledge appropriation” is explored as contrasted with that of “knowledge sharing”.

by Ishida (1986, Fig.2 (p107)), both of which focus on the cultural distance between PCNs and HCNs, or the gap in the notion of “gray areas” (“not clearly assigned task areas”) or “the area of mutual responsibility” [Ishida (1986 etc.)] as a major source of the misalliance problem between Japanese parents and foreign subsidiaries.

**(Insert Fig. 5-1 & 5-2, and Table 1 about here)**

“G vs. W”-model (Fig.5-1 & 5-2, and Table 1) compares some of the key elements of Japanese parents with those of their Asian subsidiaries, and discusses the management of the gray areas to contrast the relative efficiency achieved in Japanese parents with that achieved in their Asian subsidiaries. In Fig.5-1 [Japanese parents], given the mentality of Japanese employees or PCNs which is comfortable with flexible engagement with their stronger commitment to the firm, gray areas are likely to be smoothly managed to become “overlapping areas”, where the flexible cooperation and mutual learnings can be achieved among them. On the other hand, in Fig.5-2 [Asian subsidiaries], given the mentality of HCNs which is comfortable with well-defined engagement in clearly assigned tasks with their stronger sense of specialized professionalism, gray areas are likely to be left as “vacant areas”, where each member is not willing to commit to manage these areas, and mutual learnings based on their knowledge and information sharing cannot be smoothly achieved.

## **2.2 Stepwise Hybrid Modification of Clarification and Enhancement**

As discussed in Hayashi (2012 etc.), this framework can also be useful to illustrate the stylized pattern to mitigate the above-mentioned misalliance problem as follows.

As observed in JMF (1997), JRC (2012), and Hayashi (2012 etc.), various types of efforts have been carried out in Asian subsidiaries of Japanese MNEs which seem to be helpful in mitigating the misalliance problem, e.g., preparation for user-friendly manuals, standardization of skills and contents of tasks, QC circle activities, systematic development of multiple skills, etc. In Hayashi (2012 etc.), using “G vs. W”-model framework, each of these efforts is interpreted as a part of the stylized pattern of “stepwise hybrid modification of clarification and enhancement” as illustrated in Table 2 and Fig.6.

**(Insert Table 2 & Fig. 6 about here)**

As the 1<sup>st</sup> step & static modification, the clarification of “gray areas” is carried out. i.e., In order to adapt to local conditions (e.g., mentality of HCNs for well-defined commitment and for stronger sense of specialized professionalism), the original “gray areas engagement model” is likely to be modified, where some of the elements of “well-defined engagement model” are likely to be implemented. For instance, by preparing for user-

friendly manuals, as well as by standardizing the skills and contents of tasks, the contents of “gray areas” are to be more clarified and/or their size is to be relatively smaller.

On the other hand, as the 2<sup>nd</sup> step & dynamic modification, the enhancement of “gray areas managing capability” is carried out. i.e., To achieve higher efficiency, some elements of “gray areas engagement model” is likely to be enhanced. For instance, by promoting job rotation and trainings for multiple skills, as well as by encouraging QC circle activities, the mentality and capability for “gray areas management” of each HCNs is to be enhanced, so that the flexible cooperation and mutual learnings can be smoothly achieved among them.

### **2.3 Contrasting Nature of “Knowledge Appropriation vs. Knowledge Sharing”**

Then, given this framework of “G vs. W”-model as well as the stylized mitigating process of the misalliance problem, the contrasting nature of “knowledge appropriation vs. knowledge sharing” can be illustrated as follows.

In some interviewed cases in 2007 and 2013, “knowledge appropriation” was observed where the promoted HCNs are likely to appropriate possible learning opportunities as well as the useful knowledge and information on the “gray areas” around them. i.e., In these cases, on the tasks and/or problems around “gray areas”, the promoted HCNs are likely to manage only with their own efforts, and they would exclude their subordinate members from sharing useful knowledge and experiences relating to these tasks and/or problems.

Here, using the framework of “G vs. W”-model, the problem of “knowledge appropriation” can be illustrated as Fig.7 (case X) in section 3, where the promoted HCNs would discourage both the 1<sup>st</sup> and 2<sup>nd</sup> step modifications (i.e., 1<sup>st</sup> step: clarification of “gray areas”, 2<sup>nd</sup> step: enhancement of “gray areas managing capability”), and then, the stylized mitigating process of the misalliance problem was significantly stagnated.

And thus, “knowledge appropriation” can be viewed as the “joint problem of ineffective control & inefficient knowledge transfer”, where the ineffective control of the promoted HCNs would seriously damage the development of “gray areas managing capabilities” of subordinate members as well as those of the team as a whole.

In contrast, in some other interviewed cases in 2007 and 2013, “knowledge sharing” was also observed where the promoted HCNs were willing to share possible learning opportunities as well as the useful knowledge and information on the “gray areas” with their neighboring subordinate members. i.e., In these cases, on the tasks and/or problems around their “gray areas”, the promoted HCNs would encourage their subordinate members to share useful knowledge and experiences to cooperate with each other to manage these tasks and/or problems.

Here, using the framework of “G vs. W”-model, “knowledge sharing” can be

illustrated as Fig.9 (case Y) & and Fig.11 (case Z), where the promoted HCNs would encourage both the 1<sup>st</sup> and 2<sup>nd</sup> step modifications, and then, this stylized mitigating process was steadily progressed.

And thus, “knowledge sharing” can be viewed as the “joint performance of effective control & efficient knowledge transfer”, where the good motivation of the promoted HCNs would significantly promote the development of “gray areas managing capabilities” of subordinate members as well as those of the team as a whole.

### **3. Comparative Analysis of Three Cases: Two Key Explanatory Factors of “Knowledge Appropriation vs. Knowledge Sharing”**

In sub-section 3.1, the author’s interviews to Asian subsidiaries of Japanese MNEs are briefly overviewed, and the three interviewed cases are focused. Then, in the following subsections, using the framework of “G vs. W”-model<sup>10</sup>, a comparative study of these three cases are carried out to explore the following research question.

Q : How and why would the localization of HCNs cause the opposing results of “knowledge appropriation vs. knowledge sharing” in some Asian subsidiaries of Japanese MNEs?

#### **3.1 Focus on the Three Cases of “Knowledge Appropriation vs. Knowledge Sharing”**

The author visited 45 subsidiaries of Japanese MNEs located in four Asian countries in 2007 and 2013, and carried out the semi-structured interviews to the executives who were in charge of human resource affairs, where the current state and facing problems on human resource development as well as their ongoing efforts for solving these problems were examined<sup>10</sup>.

Looking over the obtained results of these interviews, among several cases, an interesting contrast of “knowledge appropriation vs. knowledge sharing” was observed. Among these cases, three cases (case X, Y, and Z) were focused for further investigations, as their state of either “knowledge appropriation” or “knowledge sharing” was clearly identified, and a relatively detailed information on the decision making by the promoted HCNs was available<sup>11</sup>.

Then, it was noted that, for all the three cases, the stylized misalliance problem in “G vs. W”-model was observed as well as its stylized mitigating process of the stepwise hybrid modification. On the other hand, looking into their observed differences, (i) “degree of dependence on personal skills and knowledge of core members” and (ii) “relative size of prospects for growing opportunities” seemed to be crucial for the choice of the promoted HCNs on “knowledge appropriation vs. knowledge sharing”, and hence, they seemed to be the two key explanatory factors for our contrast findings of “knowledge appropriation vs. knowledge sharing”.

Here, the first factor is defined as the degree on which a team of an Asian subsidiary is dependent for the gray areas managing capability of its certain core member (typically, the newly promoted HCN of the team). In case X and case Y, this factor is pointed out to be crucial for the relative size of incentives for “knowledge appropriation” for the promoted

---

<sup>10</sup> The overview of the author’s interviews in 2007 & 2013 is described in Table 3 in Appendix.

<sup>11</sup> The overview of these three cases (case X, Y, and Z) is described in Table 4(1) & Table 4(2) in Appendix.

HCNs. Then the second factor is defined as the expected size of growing opportunities for the newly promoted HCN if he/she would choose “knowledge sharing” rather than “knowledge appropriation”. In case Z, this factor is pointed out to be crucial for the relative size of incentives for “knowledge sharing” for the promoted HCNs.

Based on these observations, in the following sub-sections, a comparative analysis of these three cases is going to be carried out. i.e., Using the framework of “G vs. W”-model, observed differences among these three cases are illustrated. Then, the possible causalities between “two key explanatory factors” and “relative sizes of incentives of the promoted HCNs for their knowledge appropriation vs. knowledge sharing” as well as their relating case specific factors are examined, which would lead to “a pair set of conditions”, or a possible set of answers for our main research question.

### **3.2 Case X: “Knowledge Appropriation” under “Higher Dependence on Personal Skills and Knowledge”**

This sub-section describes case X with higher dependence on certain core members of HCNs, where “knowledge appropriation” has caused a serious stagnation in the stylized mitigating process of the misalliance problem in “G vs. W”-model as illustrated in Fig.7. Then, a possible causality of “higher dependence on core members of HCNs” to “higher incentives for knowledge appropriation” as well as their relating case specific factors are discussed. Following these discussions, “Conditions A” is illustrated, which is on the right-hand side of Fig.8 to show “a set of conditions that would lead to knowledge appropriation”.

#### **3.2.1 Misalliance Problem and Stagnation in Stepwise Hybrid Modification**

As a manufacturing factory of Firm X’s subsidiary in Hong Kong, which produces components of OA-equipment, case X started her production in 1994. Since then, similar to the other two cases of Y and Z, this case had faced the misalliance problem in gray areas management, and various types of efforts had been carried out in order to mitigate this misalliance problem in a stylized manner of “stepwise hybrid modification”. For instance, as for the 1<sup>st</sup> step & static modification, (1) the preparation for user-friendly manuals and (2) the standardization of the contents of tasks had been carried out. As for the 2<sup>nd</sup> step & dynamic modification, (3) the information sharing and mutual learnings had been encouraged among members in each section as well as among members across neighboring sections.

However, in case X, unlike the other two cases, the stylized stepwise hybrid modification had been seriously stagnated especially in the automobile components sector, where the “knowledge appropriation” took place in 2002 when this sector was newly initiated. As for the 1<sup>st</sup> step & static modification, the preparation for user-friendly manuals and the standardization of the contents of tasks had been implemented in some production processes,

whereas, they had not been implemented in some other production processes as the newly promoted HCNs opposed against their implementation. Furthermore, as for the 2<sup>nd</sup> step & dynamic modification, the information sharing and mutual learnings had been seriously stagnated, where the newly promoted HCNs were rather reluctant for sharing their useful knowledge and information with their subordinate members.

### **3.2.2 Higher Dependence on Core HCNs and their Knowledge Appropriation**

Then, as the possible explanatory factors for their knowledge appropriation, higher degree of dependence on personal skills & knowledge of core members of HCNs was pointed out as a crucial factor. i.e., In 2002, when the automobile components sector was initiated, core members of HCNs were requested by Japanese executives to shift from OA-equipment sector to this new sector, but some of them had refused this shift and moved out of this firm, and thus, the degree of dependence on personal skills & knowledge of the remaining core members was suddenly raised.

In addition, as the underlying reasons for this higher degree of dependence, there were two unfavorable case specific factors in those years, so that only insufficient time and resources were available for their skill development.

Firstly, regarding to the market condition, the growth rate for automobile components was quite high in Southern China, and huge number of competitors were expected to enter the market. And thus, for firm X, an immediate establishment of a reliable production base in China was given the top priority, and the full commitments by the remaining core members were strongly required. Secondly, regarding to the business characteristics, the geographical approximation to the market was crucial for the type of components of firm X, and accordingly, the number of overseas operational bases was relatively large. Then, even in urgent cases for a certain foreign subsidiary in facing serious troubles, it would be difficult for Japanese parent to send a large-scale assistance to the subsidiary.

Then, in 2002, as the degree of dependence on personal skills & knowledge of these core HCNs was raised, a sudden localization of HRs (Human Resources) took place, or these core HCNs were promoted to the division heads responding to their strong pressures in a following manner.

i.e., When the new sector of automobile components started, the core HCNs were asked to follow the instruction from Japanese executives to implement a new production style specific to automobile components. However, some of these core members strongly refused to follow this instruction, while claiming that they could manage the conventional production line without implementing a new style as they had enough skills and knowledge acquired through their previous experiences. Japanese executives had a difficult time in facing their



claims, but eventually, decided to generally accept their claims, and promoted them to the positions of division heads, while some Japanese executives were stepped down to become their senior advisors.

Then, after promoted to the division heads, some of them started to appropriate their knowledge. i.e., After the promotion, their individual “gray areas managing capability” was steadily improved, because they had more learning opportunities of “trials and errors” while receiving useful advices from senior Japanese advisors. However, they were not willing to share these knowledge and information with other members, and they were not supportive for making user-friendly manuals for certain advanced areas, for fear that they might lose their advantages over their subordinate members. In addition, they would negatively evaluate the voluntary activities by some of the subordinate members to promote cross-sectional collaboration which would be useful for information and knowledge sharing on “gray areas management”.

### **3.2.3 Possible Causality of Knowledge Appropriation & Illustration of Conditions A**

Here, noting that a higher dependence on personal skill and knowledge as the salient feature of case X, the manners of knowledge appropriation can be illustrated as Fig.7. Then, relating to our main research question, a possible causality between “higher dependence on personal skills and knowledge” and “higher incentives for knowledge appropriation” would be as follows.

**(Insert Fig. 7 about here)**

Given a higher dependence on personal skills and knowledge, the incentives of promoted HCNs for knowledge appropriation were likely to be high due to the dual reasons of (a) higher benefit from knowledge appropriation, and (b) lower risk of knowledge appropriation.

Firstly, from the viewpoint of the promoted HCNs, the benefit from knowledge appropriation was likely to be high. As the gap in the level of knowledge and information was relatively huge between the promoted HCNs and their subordinate members, the chances of taking advantages of knowledge appropriation (monopolizing useful knowledge & information) was relatively large. In addition, due to this huge gap, it was relatively easy for the promoted HCNs to appropriate newly incoming flows of knowledge and information from Japanese parents, as they were in the advantageous positions in controlling their flows.

Secondly, from the viewpoint of the promoted HCNs, the risk of knowledge appropriation was likely to be low. This was because “gray areas managing capability” of subordinate members (candidates for the successors) were not yet developed, and a factory might face serious difficulties without the full commitments by the currently promoted HCNs.

And thus, even when the promoted HCNs would appropriate their knowledge, Japanese executives could not easily replace them to other members.

**(Insert Fig. 8 about here)**

And thus, from case X, the arising mechanism of “knowledge appropriation” can be illustrated as the right-hand side of Fig.8. “Conditions A” is characterized by the “higher dependence on personal skills and knowledge”, which was caused by the two unfavorable case specific factors, and it would lead to a higher incentive for the promoted HCNs for “knowledge appropriation” due to these dual reasons of its higher benefit as well as its lower risk.

### **3.3 Case Y: “Knowledge Sharing” under “Lower Dependence on Personal Skills and Knowledge”**

This sub-section describes case Y with lower dependence on core members of HCNs, where “knowledge sharing” has promoted the steady progress in the stylized mitigating process of the misalliance problem in “G vs. W”-model as illustrated in Fig.9. Then, a possible causality of “lower dependence on core HCNs” to “lower incentives for knowledge appropriation” as well as their relating case specific factors are discussed. Following these discussions, the first part of “Conditions B” is illustrated, which is on the right-hand side of Fig.10 to show “the first half of the conditions that would lead to knowledge sharing”.

#### **3.3.1 Misalliance Problem and Steady Progress in Stepwise Hybrid Modification**

Like case X, as a manufacturing factory of Firm Y’s subsidiary in Hong Kong, case Y started her operation in 1994 to produce processed materials for electric components. Since then, similar to the other two cases of X and Z, this case had faced the misalliance problem in gray areas management, and various types of efforts had been carried out in order to mitigate this misalliance problem in a stylized manner of “stepwise hybrid modification”. For instance, as for the 1<sup>st</sup> step & static modification, (1) the preparation for user-friendly manuals and (2) the standardization of the contents of tasks had been carried out. As for the 2<sup>nd</sup> step & dynamic modification, (3) a system of qualification to develop multiple skilled workers and (4) QC circles activities and cross-sectional project teams had been implemented.

Here, as compared with case X, case Y has the following four salient features. Firstly, in case Y, the degree of dependence on personal skills and knowledge was relatively low, which was along with a steady progress in the development of “gray areas managing capability” in the stylized manner. Secondly, along with this progress in the skill development, the localization of HCNs had gradually progressed in a steady manner, which

was different from that in case X where a sudden localization took place responding to a strong pressure from core members of HCNs. Thirdly, “knowledge sharing” has been achieved by the promoted HCNs, which was different from case X where the problem of knowledge appropriation took place. And fourthly, as possible underlying reasons for the lower degree of dependence, there were two favorable case specific factors, so that sufficient time and resources were somehow available for the persistent efforts for their skill development.

### **3.3.2 Lower Dependence on Core HCNs and Knowledge Sharing among Members**

Regarding to the first point, the degree of dependence on personal skills and knowledge had been steadily lowered as a result of their persistent efforts for “stepwise hybrid modification of clarification and enhancement” as follows. i.e., As the 1<sup>st</sup> step of “clarification of gray areas”, a lot of efforts were made for standardizing the contents of tasks as well as the required skills. Then, as the 2<sup>nd</sup> step of “enhancement of gray areas managing capability”, based on the standardized tasks and skills at the 1<sup>st</sup> step, the qualification system of the required skills in each section was implemented, where the systematic development of multiple skills were carried out for each HCNs. Accordingly, it was pointed out that the number of core members with qualifying levels of “gray areas managing capability” was relatively large, and the “gap in useful knowledge and information” between the promoted HCNs and their subordinate members was relatively small, which leads to the lower degree of dependence on personal skills and knowledge in case Y.

Regarding to the second point, it was observed that the localization of HCNs had progressed in a steady manner, where the promotion of HCNs to middle and upper positions had been carried out based on the capability of HCNs, i.e., based on the acquired levels of both “gray areas managing capability” and “capability as a leader for the promoted position”. As a result, it was observed in 2007 that, all the four positions of manufacturing related division heads were occupied by HCNs, who had worked for the subsidiary since its establishment of 1994, so that the number of remaining PCNs were only 3 (out of 300 employees) in the subsidiary.

Regarding to the third point, the evaluation system was implemented to induce “knowledge sharing” in case Y. i.e., For the promoted HCNs, “knowledge appropriation” was negatively evaluated, while “knowledge sharing” was highly evaluated as capable and qualified as a leader. In addition, “knowledge sharing” was in fact observed, where the promoted HCNs were willing to share useful knowledge, information, and learning opportunities with their subordinate members, so that “gray areas managing capability” of individual members as well as that of subsidiary as a whole would be steadily promoted.

Then, regarding to the fourth point, there were two favorable case specific factors

for their persistent efforts of the stepwise hybrid modification as follows.

The first one is the distinguished communication skills of PCNs, especially that of one Japanese executive who used to stay studying in China for some years. With his deep knowledge on the misalliance between Japanese MNEs and local conditions, he played a leading role in communicating with HCNs, so that they can have a better understanding on the importance of the gray areas management as well as that of the stepwise hybrid modification of clarification and enhancement.

The second one is a relatively high priority given to the factory in China. i.e., for firm Y, this factory was indispensable, as it was the only foreign factory for the firm, and its production size was larger than the ones in Japan. And thus, Japanese parents were obliged for providing large scale assistances if they were required.

### **3.3.3 Possible Causality for Knowledge Sharing and Illustration of Conditions B (1)**

Here, contrasting with case X, and noting that lower dependence on personal skills and knowledge as the salient feature of case Y, the manners of knowledge sharing of this case is illustrated as Fig.9. Then, relating to our main research question, a possible causality between “lower dependence on personal skill and knowledge” and “lower incentives for knowledge appropriation” would be as follows, which is exactly the mirror image of case X.

**(Insert Fig. 9 about here)**

As shown in Fig.9, given lower dependence on personal skill and knowledge, the incentives of promoted HCNs for knowledge appropriation were likely to be low due to the dual reasons of (a) lower benefit from knowledge appropriation, and (b) higher risk of knowledge appropriation.

Firstly, from the viewpoint of the promoted HCNs, the benefit from knowledge appropriation was likely to be small. As the gap in the level of knowledge and information was relatively small between the promoted HCNs and their subordinate members, the chances of taking advantages of knowledge appropriation (monopolizing useful knowledge and information) was relatively small. In addition, due to this minimized gap, it was relatively difficult for the promoted HCNs to appropriate newly incoming flows of knowledge and information from Japanese parents, as they were not so much in the advantageous positions in controlling their flows.

Secondly, from the viewpoint of the promoted HCNs, the risk of knowledge appropriation was likely to be high. This was because “gray areas managing capability” of subordinate members (candidates for the successors) were already well developed, and a factory might manage possible troubles and problems even without full commitments by

currently promoted HCNs. And thus, if they would appropriate their knowledge, Japanese executives can easily replace them to other members with qualified level of gray areas managing capability.

**(Insert Fig. 10 about here)**

And thus, from case Y, the arising mechanism of “knowledge sharing” can be illustrated as the first half of the right-hand side of Fig.10. “Conditions B” is partly characterized by a lower dependence on personal skills and knowledge, which was explained by the two favorable case specific factors, and it would lead to a lower incentive for the promoted HCNs for “knowledge appropriation” as the contrasting mirror image of case X.

### **3.4 Case Z: “Knowledge Sharing” with Higher Prospects for Growing Opportunities**

This sub-section describes case Z with higher prospects for growing opportunities, where “knowledge sharing” has promoted the steady progress in the stylized mitigating process of the misalliance problem as illustrated in Fig.11. Then, a possible causality of “higher prospects for growing opportunities” to “higher incentives for knowledge sharing” as well as their relating case specific factors are discussed. Following these discussions, the second part of “Conditions B” is illustrated, which is on the right-hand side of Fig.10 to show “the remaining part of the conditions that would lead to knowledge sharing”.

#### **3.4.1 Misalliance Problem and Steady Progress in Stepwise Hybrid Modification**

As a subsidiary in China of Firm Z, which is a manufacturer of processed textile products based in Japan, case Z started her production in 1993. Since then, similar to other two cases of X and Y, this case had faced the misalliance problem in gray areas management, and various types of efforts had been carried out in order to mitigate this misalliance problem in a stylized manner of “stepwise hybrid modification”.

As for the 1<sup>st</sup> step & static modification, (1) the preparation for user-friendly manuals and (2) the standardization of the contents of tasks had been carried out. As for the 2<sup>nd</sup> step & dynamic modification, (3) a system of qualification to develop multiple skilled workers and (4) the cross functional working group for business planning and product designing had been implemented.

Similar to case X, one of the salient features of this case would be a very high degree of dependence on the skill & knowledge of a certain top HCN of this case (i.e., “Mr.A”). However, unlike case X, the promoted HCN (Mr. A) would not appropriate his knowledge and information, but instead, he took a strong leadership for “knowledge sharing” with his subordinate members as follows.

### **3.4.2 Higher Dependence on Core HCN, but Knowledge Sharing among Members**

“Mr.A” graduated from a college in China majoring Japanese language, and worked for a local textile manufacturer. Then, at the time of the establishment of firm Z’s subsidiary in China, Mr. A was introduced to “Mr.B”, who was the president of firm Z from the founder’s family. Hearing various stories about firm Z from Mr.B, Mr.A was very much impressed, and felt a deep empathy with firm Z as well as with the management philosophy of Mr.B. With deep mutual trusts and understandings, Mr.B asked Mr.A to be the vice president of the newly established subsidiary. Since then, as the vice president (1993-2005) and as the president (2005-), Mr.A took a strong leadership to expand the business field of the subsidiary; i.e, starting as a contract manufacturer → adding sales function for local market → enlarging sales function & starting product designing function for global market.

As described above, like case X, the degree of dependence on personal skills and knowledge was very high, and thus, it is well expected that the incentive for Mr.A to appropriate his knowledge was very high. However, unlike case X, Mr.A did not appropriate his knowledge, but instead, he took a strong leadership to share his knowledge and information with other HCNs, and carried out various efforts in a stylized manner of stepwise hybrid modification as follows.

e.g., For HCNs of production workers, like case Y, as the first step of “clarification”, the preparation of user-friendly manuals and the standardization for the contents of tasks and required skills were carried out, and as the second step of “enhancement”, the system of qualification for required skills in each section was implemented. For HCNs in upper classes, as the second step of “enhancement”, the cross functional working group for business planning and product designing was implemented, where the executives and core managers from the three sections of sales, product designing, and manufacturing were actively involved.

### **3.4.3 Possible Causality of Knowledge Sharing and Illustration of Conditions B (2)**

Here, noting that Mr.A did not choose “knowledge appropriation” even though his incentive for knowledge appropriation was likely to be very high, another possible factor was explored to explain his high incentive for “knowledge sharing”. Then, as illustrated in Fig.11, “higher prospects for growing opportunities”, which were closely associated with the management philosophy of Mr.B as well as the future vision of the subsidiary in China, seemed to have played a crucial role for his strong incentive for knowledge sharing.

**(Insert Fig. 11 about here)**

In other words, in addition to the first factor [(i) degree of dependence on personal skills & knowledge], the second factor of “(ii) relative size of prospects for growing opportunities” seemed to be crucial. Here, relating to our main research question, a

possible causality between “this second factor” and “higher incentive for knowledge sharing” is examined. And then, it is shown that, in case Z, “high incentives for knowledge sharing” (from 2<sup>nd</sup> factor) was sufficiently large to outweigh “high incentives for knowledge appropriation” (from 1<sup>st</sup> factor) as follows.

In firm Z, as an important principle for human resource development, there was a saying that “leave it to him/her, while not leaving it to him/her”, which was based on the management philosophy of Mr.B. i.e., The boss is supposed to entrust him/her with challenges and goals, while respecting his/her own ideas and initiatives. Whereas, at the same time, the boss is always supposed to care for him/her to share his/her challenges and goals with taking some distance.

Indeed, sharing this philosophy, Mr.B and Japanese parent entrusted Mr.A with challenging missions such as developing new product designs and initiating new market channels. And again, sharing this philosophy, Mr.A entrusted his members in subsidiary in China with their own challenges. In particular, with proposing his original vision for the subsidiary, he strived his sincere efforts for achieving this vision together with his members, namely, “Sense the global trend, and create our own design from China”. Accordingly, through the persistent efforts in their above mentioned “cross functional working group”, recently, they had more opportunities where they found themselves improved and getting more sophisticated as a team.

And thus, from case Z, the arising mechanism of “knowledge sharing” can be illustrated as the second half of the right-hand side of Fig.10. The remaining part of “Conditions B” is characterized by a higher prospects for growing opportunities, which was explained by “sharing a vision with challenging missions”, and it would lead to a higher incentive for the promoted HCNs for “knowledge sharing”.

## **4. Summary and Further Discussions**

### **4.1 Summary of the Analysis**

Based on the findings in author's interviews to Asian subsidiaries of Japanese MNEs, this study has focused on the interesting contrast of "knowledge appropriation vs. knowledge sharing". Comparing the three interviewed cases where relatively detailed information was available on decision making by the promoted HCNs, the arising mechanism for the opposing results of either "knowledge appropriation vs. knowledge sharing" has been examined.

In section 1, after surveying the existing literature on both positive and negative effects of the localization, the contrasting nature of "knowledge appropriation vs. knowledge sharing" was discussed; i.e., "knowledge appropriation is viewed as the jointly occurring problem of ineffective control and inefficient knowledge transfer, whereas "knowledge sharing" can be viewed as the jointly occurring performance of effective control and efficient knowledge transfer. Then, illustrating a pair of pictures of "Fig.3 & Fig.4", our main research question was proposed to explore a pair of certain set of conditions, or "Conditions A vs. Conditions B", which would lead to the opposing results of knowledge appropriation vs. knowledge sharing".

In section 2, as a framework to illustrate the contrasting nature of knowledge appropriation and knowledge sharing, "G vs. W"-model was overviewed, as this model is useful in describing the stylized mitigating process of the misalliance problem caused by the gap between Japanese MNEs and local conditions, which is the key notion to contrast "knowledge appropriation vs. knowledge sharing".

In section 3, by examining the observed differences as well as the common characteristics among the three interviewed cases with using "G vs. W"-model, a pair of different set of conditions, or "Conditions A vs. Conditions B" in Fig.3 and Fig.4 was explored, whose findings can be summarized as the updated pair of pictures of "Fig.8 vs. Fig.10", where the following two points should be reminded.

Firstly, these set of conditions can be characterized by the two key explanatory factors; i.e., (i) "degree of dependence on personal skills and knowledge of core members", and (ii) "relative size of prospects for growing opportunities". From case X (Fig.8), "Conditions A" is characterized by the higher value of the first key explanatory factor, which leads to a higher incentive for the promoted HCNs for "knowledge appropriation". In contrast, from case Y (Fig.10), "conditions B" is characterized by the lower value of the first key explanatory factor, which leads to a lower incentive for the promoted HCNs for "knowledge appropriation". On the other hand, from case Z (Fig.10), "conditions B" is also characterized by the higher value of the second key explanatory factor, which leads to a higher incentive for them for "knowledge sharing".

Secondly, as possible underlying reasons for this set of conditions, several case specific factors were pointed out. i.e., In case X, the two unfavorable case specific factors



of “① severe market condition with rising competitive pressures”, and “② business characteristics which makes difficult for Japanese parent to send large scale support to foreign subsidiaries”, were pointed out to be crucial, which allows only limited time and resources for their skill development, and accordingly, leads to “higher dependence on personal skills and knowledge”. On the other hand, in case Y, the two favorable case specific factors of “③ distinguished communication skill of PCNs who used to stay studying in China for several years”, and “④ higher priority given to the factory in China”, were pointed out to be crucial, which allows enough time and resources for their skill development, and accordingly, leads to “lower dependence on personal skills and knowledge”. Furthermore, in case Z, the favorable case specific factor of “⑤ sharing a common goal with challenging missions among team members supported by the respectable corporate philosophy” was pointed out, which raises their steady motivations for the growth through their cooperation, and accordingly, leads to “higher prospects for growing opportunities”.

#### **4.2 Possible Implications for Further Researches**

Of course, this derived set of conditions, or “Conditions A vs. Conditions B” was obtained only from our findings in the three interviewed cases, and thus, its general applicability must be carefully examined by further detailed and extensive researches. Nonetheless, this set of conditions might have an important implication for the dynamic feedback mechanism, which is associated with dynamic changes in the first key explanatory factor as shown in Fig.8 and Fig.10.

In case of “knowledge appropriation”, there can be vicious cycles of “ineffective control & inefficient knowledge transfer” (Fig.8). i.e., As observed in case X, when starting from “Conditions A” (higher degree of dependence on personal skills and knowledge of the promoted HCNs) with some unfavorable case specific factors, “knowledge appropriation” can take place. Then, due to the jointly occurring problem of ineffective control and inefficient knowledge transfer, the skill development of the Asian subsidiary is seriously stagnated, and the degree of dependence on personal skills and knowledge cannot be lowered. And thus, “Conditions A” still persists in the next period, which implies the vicious cycles of “higher degree of dependence → knowledge appropriation → jointly occurring problem → higher degree of dependence...”

Then, just as the mirror image, in case of “knowledge sharing”, there can be virtuous cycles of “effective control & efficient knowledge transfer” (Fig.10). i.e., As observed in case Y, when starting from “Conditions B” (lower degree of dependence on personal skills and knowledge of the promoted HCNs) with some favorable case specific factors, “knowledge sharing” can take place. Then, due to the jointly occurring performance of effective control and efficient knowledge transfer, the skill development of the Asian subsidiary is promoted, and the degree of dependence on personal skills and knowledge can

be continuously lowered. And thus, “Conditions B” can be steadily assured in the next period, which implies the virtuous cycles of “lower degree of dependence → knowledge sharing → jointly occurring performance → lower degree of dependence...”

Then, given this contrasting pair of “vicious cycles vs. virtuous cycles”, the theoretical investigation on this pair would be an interesting topic for further researches. For instance, using a game theory framework, the decision-making process of the promoted HCNs on the choice between “knowledge appropriation vs. knowledge sharing” might be examined, so that the satisfying conditions for each of vicious & virtuous cycles might be more explicitly examined.

And then, using some obtained results for these conditions, it would be another interesting topic for further researches to explore the possible shift from “vicious cycles” to “virtuous cycles” by implementing some policy devices, which might give us some useful implications for Asian subsidiaries of Japanese MNEs currently facing this “vicious cycles problem” with unfavorable case specific factors.

## REFERENCES

- Ando, N. (2014) “The Effect of Localization on Subsidiary Performance in Japanese Multi national Corporations”, *The International Journal of Human Resource Management*, 25, 1995-2012.
- Bartlett, C.A., and H.Yoshihara (1988), “New Challenges for Japanese Multi-nationals: Is Organization Adaptation Their Achilles Heel?” *Human Resource Management*, 27, 19-43
- Fayol-Song, L. (2011) “Reasons behind Management Localization in MNCs in China”, *Asia-Pacific Business Review*, 17: 455-471.
- Frusawa, M., Brewster, C., and Takashina, T. (2016), “Normative and Systems Integration in Human Resource Management in Japanese Multinational Companies”, *Multinational Business Review*, 24, 82-105.
- Gong, Y. (2003) Subsidiary Staffing in Multinational Enterprises: Agency, Resources, and Performance, *Academy of Management Journal*, 46, 728-739.
- Hall, E. T. (1976) *Beyond Culture*, New York, Doubleday and Company.
- Hayashi, Takashi (2005), ““○-gata vs. □-gata” Moderu no Saiko: Nikkei Maker Ajia Kogaisha niokeru Torikumi kara” [“○ & □ -model” Reconsidered: Human Resource Development by Asian Affiliates of Japanese manufacturing MNEs], *The Annual Bulletin*, Japan Academy of International Business Studies, 11, 29-44.
- Hayashi, Takashi (2008), “Ajia Kogaisha niokeru Genchi Jinzai Ikusei no Torikumi wo Saguru” [“An Examination of Local Human Resource Development by Asian Affiliates of Japanese MNEs”], *Bulletin of the Nanzan Center for Asia Pacific Studies*, 3, 1-13.
- Hayashi, Takashi (2012), “Skill Development by Asian Affiliates of Japanese MNEs: Misalliance Problem and Hybrid of ○&□ model, *The Nanzan Journal of Economic Studies*, 27, 159-184.
- Hayashi, Takashi (2013), “*Genchi Jinzai Ikusei no Shinten to Ajia Kogaisha no Tenkai Kanousei: Singapore Malaysia Shuccho Hokoku* [“Skill Development of Local Human Resources and Business Deployment of Asian Affiliates], *Bulletin of the Nanzan Center for Asia Pacific Studies*, 8, 83-88.
- Hayashi, Takashi (2014), “*Genchi Jinzai Ikusei no Shinten to Ajia Kogaisha no Tenkai Kanousei (2): Chugoku Shuccho Hokoku* [“Skill Development of Local Human Resources and Business Deployment of Asian Affiliates (2): Report from Field Research in China [“Skill Development of Local Human Resources and Business Deployment of Asian Affiliates], *Bulletin of the Nanzan Center for Asia Pacific Studies*, 9, 103-111.
- Hayashi, Takashi (2018), ““Chi no Senyu vs. Chi no Kyoyu”no Chigai wo Motarasu Futatsu no Yoin: Nikkei Kigyo Ajia kogaisha niokeru Hikaku Jirei Kenkyu” [Two Factors to Explain “Knowledge Appropriation vs. Knowledge Sharing”: A Comparative Case Study of Japanese Firms’ Affiliates in Asia] A Comparative Case Study of Japanese Firms’ Affiliates in Asia], *Journal of International Business*, 10(2), 75-89, Japan Academy of International Business Studies.
- Ishida, Hideo (1982), “Nihon-gata Human Resource Management: Katei to Kozo” [Japanese-type Human Resource Management: Its Process and Structure], *The Monthly journal of*

- the Japan Institute of Labour*, 24(12), 13-22.
- Ishida, Hideo (1986), "Transferability of Japanese Human Resource Management Abroad", *Human Resource Management*, 25, 103-120.
- JMF (Japan Machinery Federation) (1997), *Gijutsu-Men kara Mita Waga Kuni Denshi Kikai Kogyo no Ajia Shinshutsu nikansuru Chosa Kenkyu Hokokusho* [Report on Japanese Electric Machinery Firms' Activities in Asia Focused on Technological Aspects], Tokyo, JMF
- JRC (Japan Finance Corporation) (2012), *Chusho Kigyo no Kaigai Tenkai to Gaikokujin Katsuyaku heno Torikumi: Kaigai Kyoten deno Torikumi Jirei to Gaikokujin Jinzai heno Intabyu Chosa kara* [Business Activities Abroad by Japanese SMEs and their Ongoing Efforts towards Higher Involvement by Foreign Human Resources: Illustrations of Some Cases in Foreign Activities and Interviews to Foreign Human Resources], Tokyo, JRC.
- Kopp, R. (1994) "International Human Resource Policies and Practices in Japanese, European, and United States Multinationals", *Human Resource Management*, 33, 581-599.
- Lam, S.S.K., and Yeung, J.C.K. (2010) "Staff Localization and Environmental Uncertainty on Firm Performance in China", *Asia-Pacific Journal of Management*, 27, 677-695.
- Law, K.S., Song, L.J., Wong, C.S., and Chen, D. (2009), "The Antecedents and Consequences of Successful Localization", *Journal of International Business Studies*, 40, 1359-1373.
- Legewie, J. (2002) "Control and Co-ordination of Japanese Subsidiaries in China: Problems of an Expatriate-based Management System", *International Journal of Human Resource Management*, 13, 901-919.
- Nonaka, I., and Takeuchi, H. (1995) *The Knowledge-Creating Company : How Japanese Companies Create the Dynamics of Innovation*, New York, OUP.
- O'Donnell, S.W. (2000), "Managing Foreign Subsidiaries: Agents of Headquarters, or an Interdependent Network?", *Strategic Management Journal*, 21, 525-548.
- Oki, K. (2013), "Kokusai Jinteki Sigen Kanri riron niokeru Nihon Kigyo Hihan: Nihonjin Kaigai Hakensha Mondai no Saikentou" [Criticism on Japanese Firms in the Theory of International Human Resource Management: Reconsideration on Japanese Expatriates Problem] in *Soshikiron Review (I)* [Review on the Theory of Organization (I)], The Academic Association for Organizational Science, Japan eds., Tokyo, Yuhikaku.
- Prendergast, C. J. (1995). A Theory of Responsibility in Organizations, *Journal of Labor Economics*, 13, 387-400.
- Selmer, J. (2004) "Expatriates' Hesitation and the Localization of Western Business Operations in China", *The International Journal of Human Resource Management*, 15, 1094-1107.
- Senge, P. M. (1990) *The Fifth Discipline*, New York, Doubleday/Currency.
- Shleifer, A., and Vishny, R. W. (1989). Management Entrenchment: The Case of Manager-Specific Investments, *Journal of Financial Economics*, 25, 123-139.
- Tan, D., and Mahoney, J.T. (2006) "Why a Multinational Firm Chooses Expatriates: Integrating Resource-Based, Agency and Transaction Costs Perspectives", *Journal of*

*Management Studies*, 43: 457-484.

Wang, S., Tong, T.W., Chen, G., and Kim, H. (2009) "Expatriate Utilization and Foreign Direct Investment Performance: The Mediating role of Knowledge Transfer", *Journal of Management*, 35, 1181-1206.

Widmier, S., Brouthers, L.E., and Beamish, P.W. (2008) "Expatriate or Local? Predicting Japanese Subsidiary Expatriate Staffing Strategies", *The International Journal of Human Resource Management*, 19, 1607-1621.

Yasumuro, Ken-ichi (1982), *Kokusai Keiei Kodo-ron* [Theory of International Management Behavior], Moriyama-Shoten, Tokyo.

## **APPENDIX: Overview of Interviews to Japanese MNEs and Three Cases for Comparative Analysis**

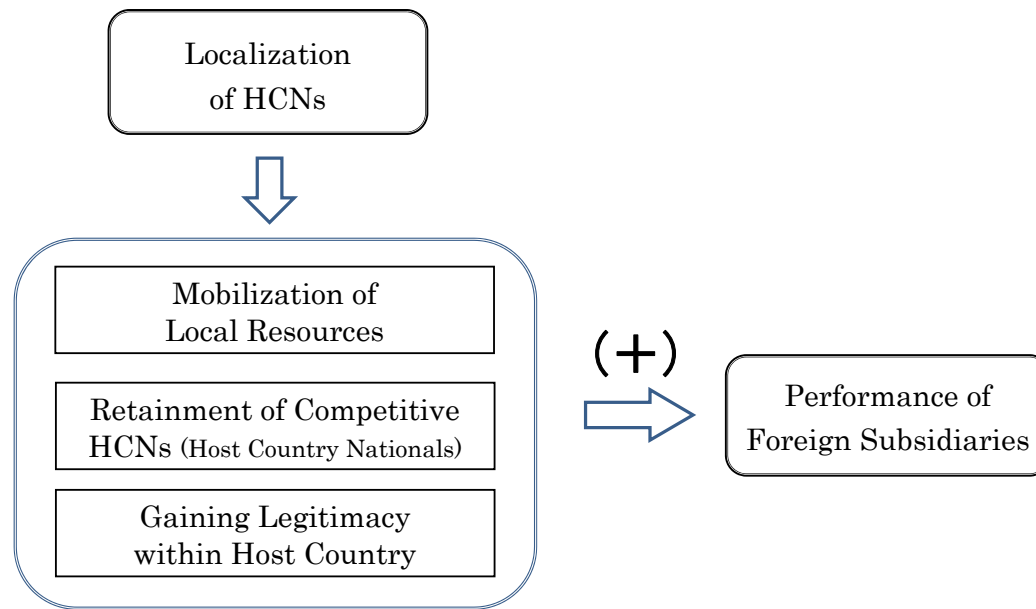
In order to examine possible roles played by Japanese MNEs on human resource development in Asian economies, two series of interviews were carried out by one of the authors in 2007 and 2013.

As shown in Table 3, one of the authors visited 40 subsidiaries of Japanese MNEs and 5 local firms initiated by Japanese entrepreneurs, which had more than 5 years operational and employment experiences located in 4 Asian countries (i.e., China, Malaysia, Thailand, Singapore). In each case, semi-structured interviews were carried out to the executives who were in charge of human resource affairs for around 1 to 2 hours, where the current state and facing problems on human resource development as well as their ongoing efforts for solving these problems were questioned.

Then, as discussed in section 3.1, the three cases of X, Y, Z were focused for our comparative analysis, as their state of either “knowledge appropriation” or “knowledge sharing” was clearly identified, and a relatively detailed information on the decision making by the promoted HCNs was available. The overview of these three cases are shown in Table 4(1) & Table 4(2).

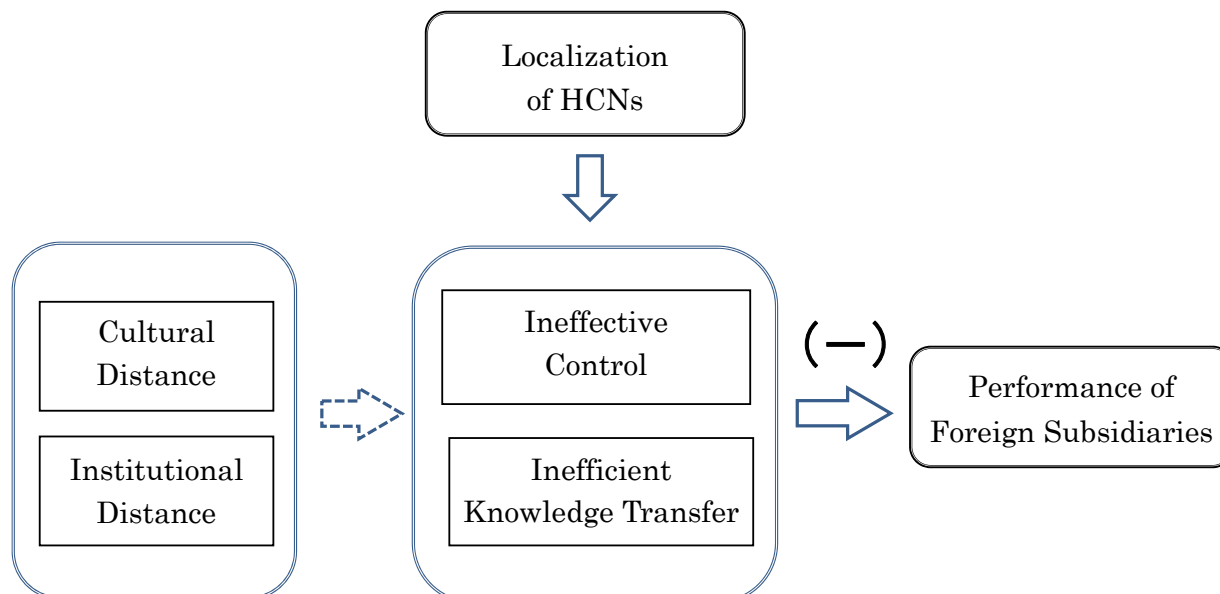
**(Insert Table 3, Table 4(1), and Table 4(2) about here)**

Fig.1 Positive Effects of Localizing HCNs



(Source) Author

Fig.2 Negative Effects of Localizing HCNs



(Source) Author

Fig.3 Knowledge Appropriation and Negative Effects of Localizing HCNs (1)

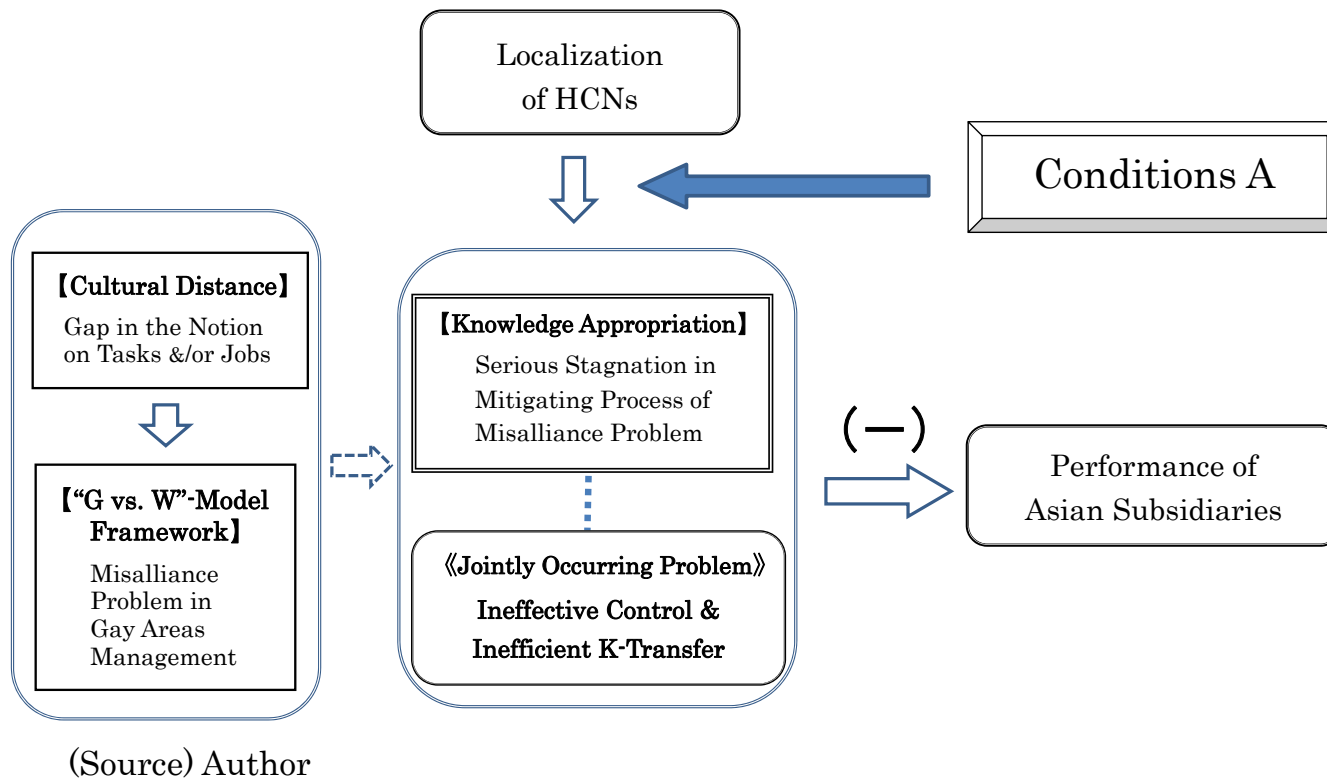
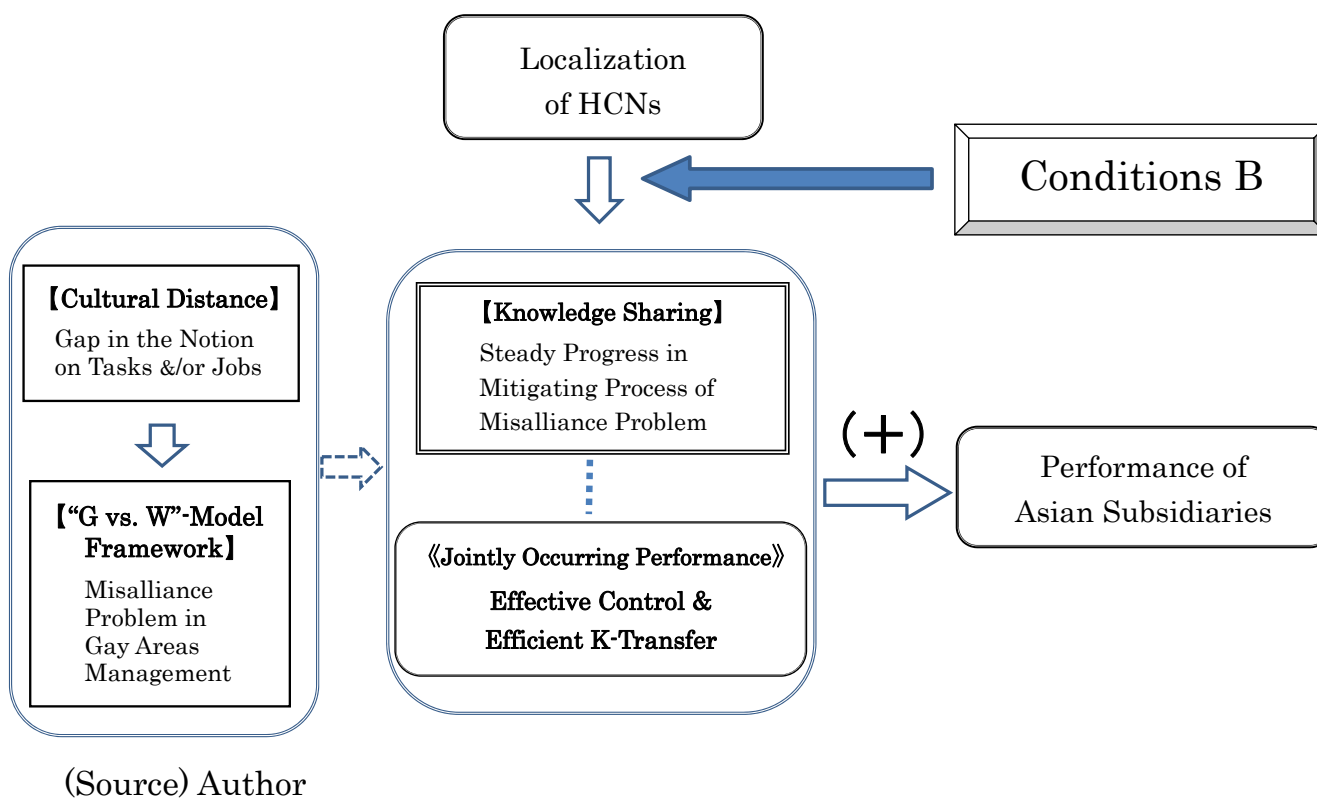
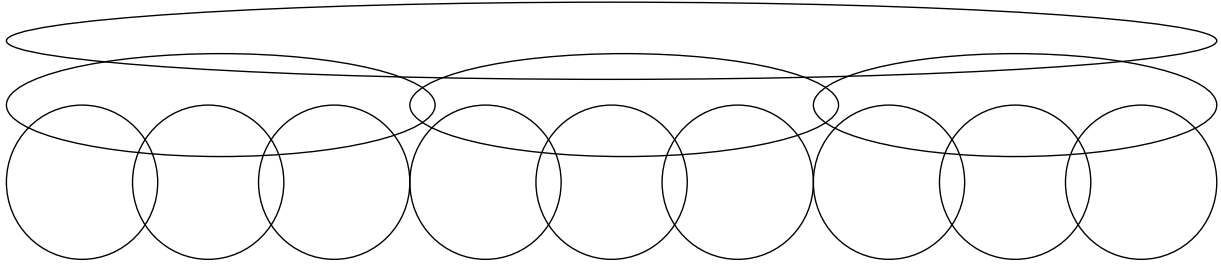


Fig.4 Knowledge Sharing and Positive Effects of Localizing HCNs (1)





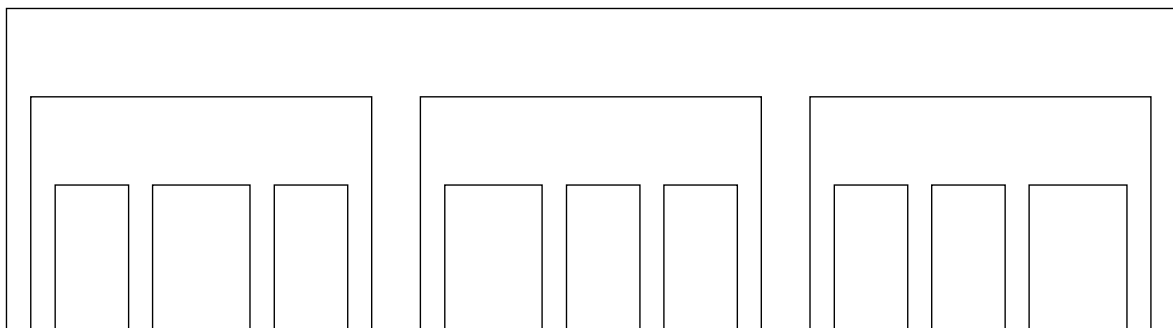
## Fig.5-1 Gray Areas Engagement-Model



Note: “Gray areas” are likely to become “overlapping areas”, as they are efficiently managed by flexible collaboration of team members.

Source: Hayashi (2005)

## Fig.5-2 Well-defined Engagement-Model



Note: “Gray areas” are likely to become “vacant areas”, which are supposed to be managed by the responsible upper rank managers.

Source: Hayashi (2005)

Table 1. Gray Areas vs. Well-defined Engagement Model

Major Characteristics		G-Model	W-Model
Manners of Tasks & Job Assignment	1) Gray (not clearly defined) areas	Greater	Smaller
	2) Borderline of individual tasks and their authority & responsibility	Vague	Clear
Mode of Skill & Knowledge	3) Sharing among members & neighboring sections	High	Low
	4) Relative importance in context specific knowledge & experiences	High	Low
	5) Relative explicitness in the form of documentation & illustration	Tacit	Explicit
Manners of Coordination & Collaboration	6) Horizontal vs. vertical coordination	Horizontal	Vertical
	7) Intensity in coordination & collaboration with neighboring sections	High	Low

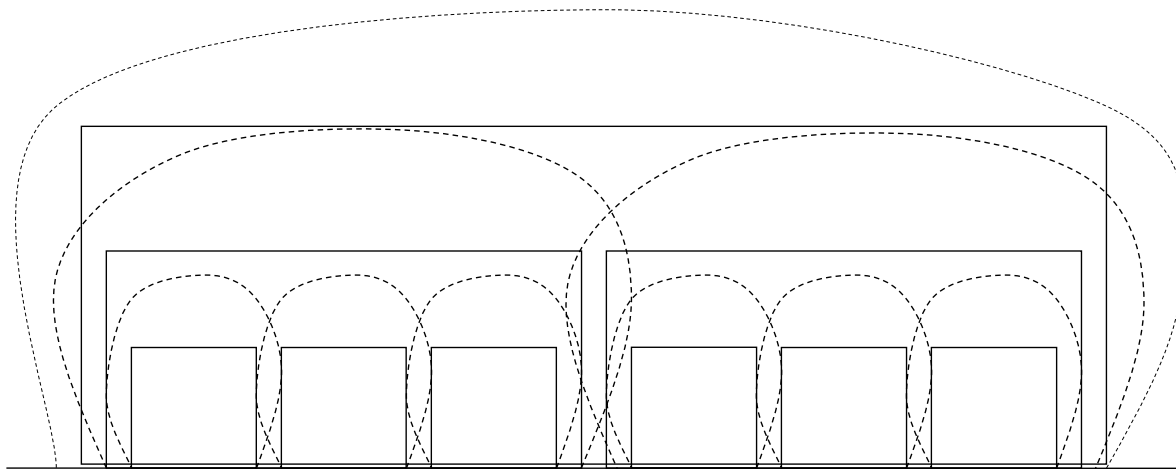
Source: Hayashi (2005)

Table 2. Stepwise Hybrid Modification

Major Characteristics		Static Modification (W)	Dynamic Modification (W&G)
Manners of Tasks & Job Assignment	1) Gray (not clearly defined) areas	Small	Responsibility : W ... Smaller Possi. Support : G ... Greater
	2) Borderline	Clear	Responsibility : W ... Clear Possi. Support : G ... Flexible
Mode of Skill & Knowledge	1) Sharing among members & sections	Low	+G : Higher
	4) Context specificity	Low	G&W : dynamic feedback of tacit & explicit knowledge
	5) Explicitness	Explicit	
Manners of Coordination & Collaboration	6) Horizontal vs. vertical coordination	Vertical	G&W : horizontal coordination backed up by vertical checking mechanism
	7) Coordination and collaboration section	Less important	
Workers' Mentality in facing Problems		Well-defined commitment	+G : Flexible support & cooperation
Human Resource Management		Higher speed in picking up for promotion	G : Opportunities for self-fulfillment → steady progress in localization → virtuous cycles can start

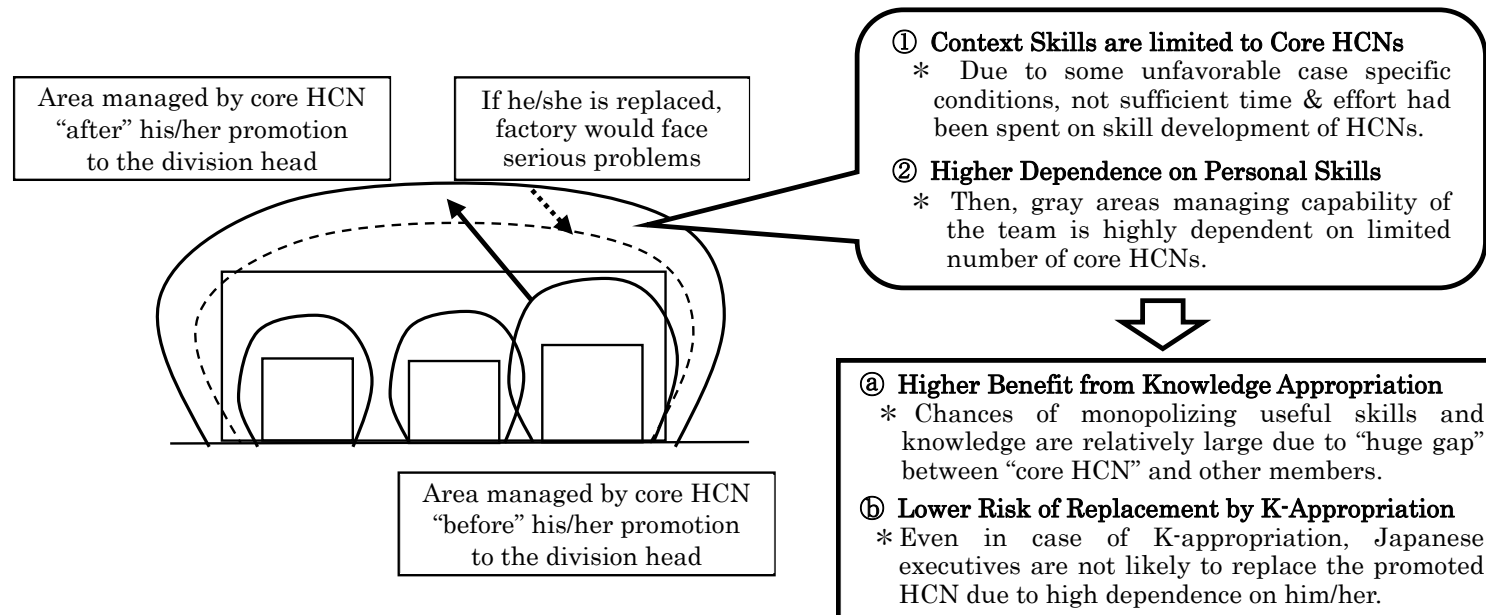
Source: Hayashi (2005)

Fig.6 Image of Stepwise Hybrid Modification



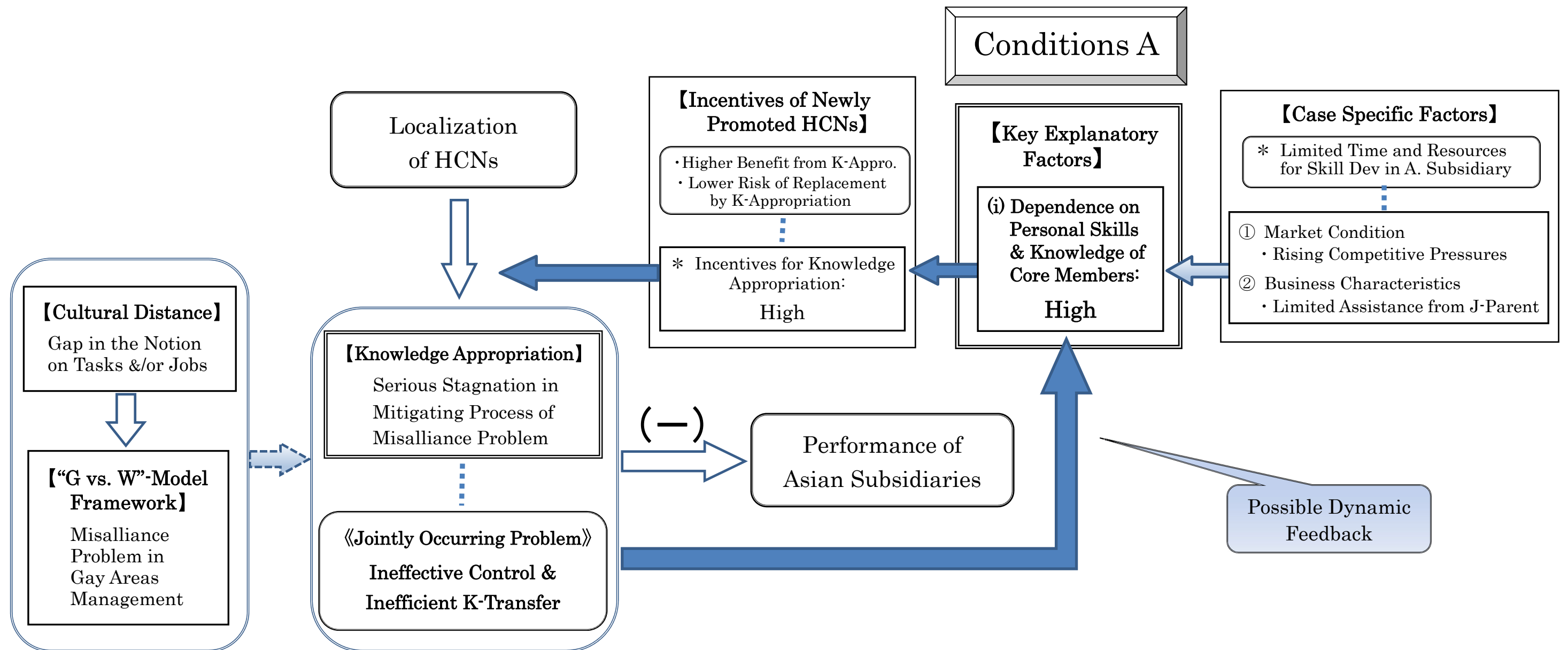
Source: Hayashi (2005)

Fig.7 Case X : “Knowledge Appropriation”  
with Higher Dependence on Personal Skills and Knowledge



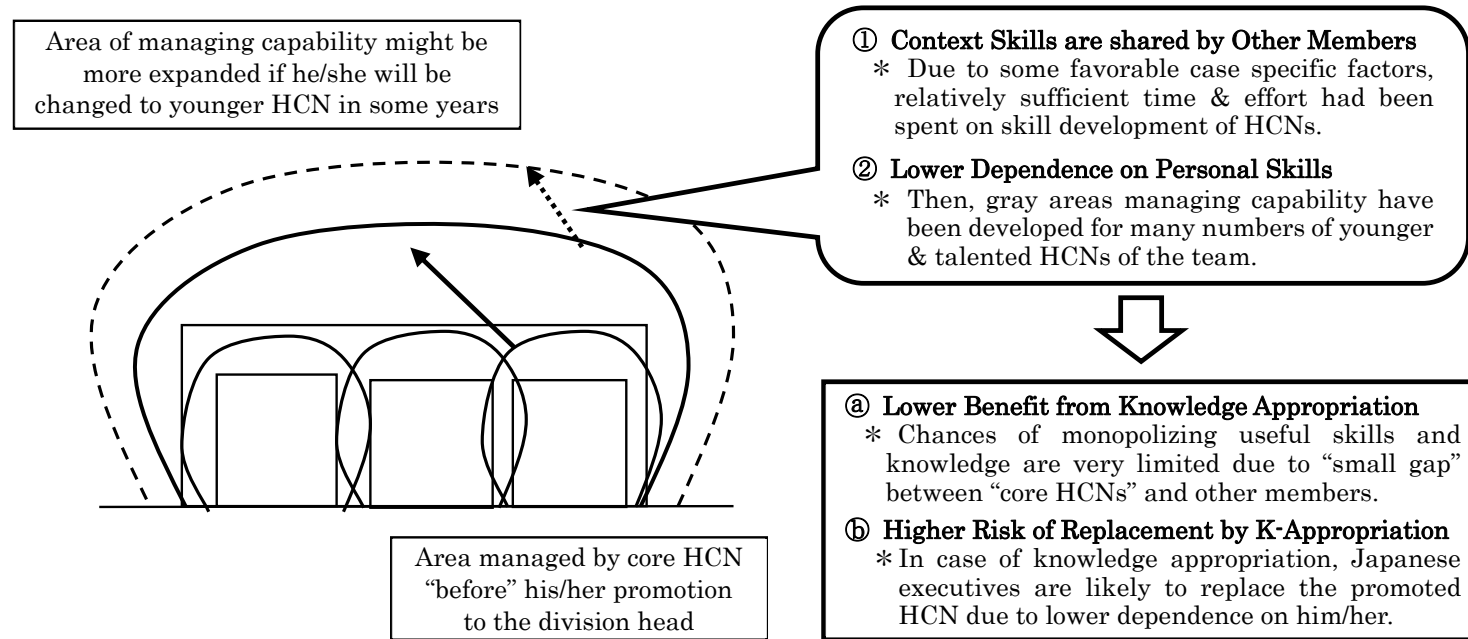
(Source) Author

Fig.8 Knowledge Appropriation and Negative Effects of Localizing HCNs (2)



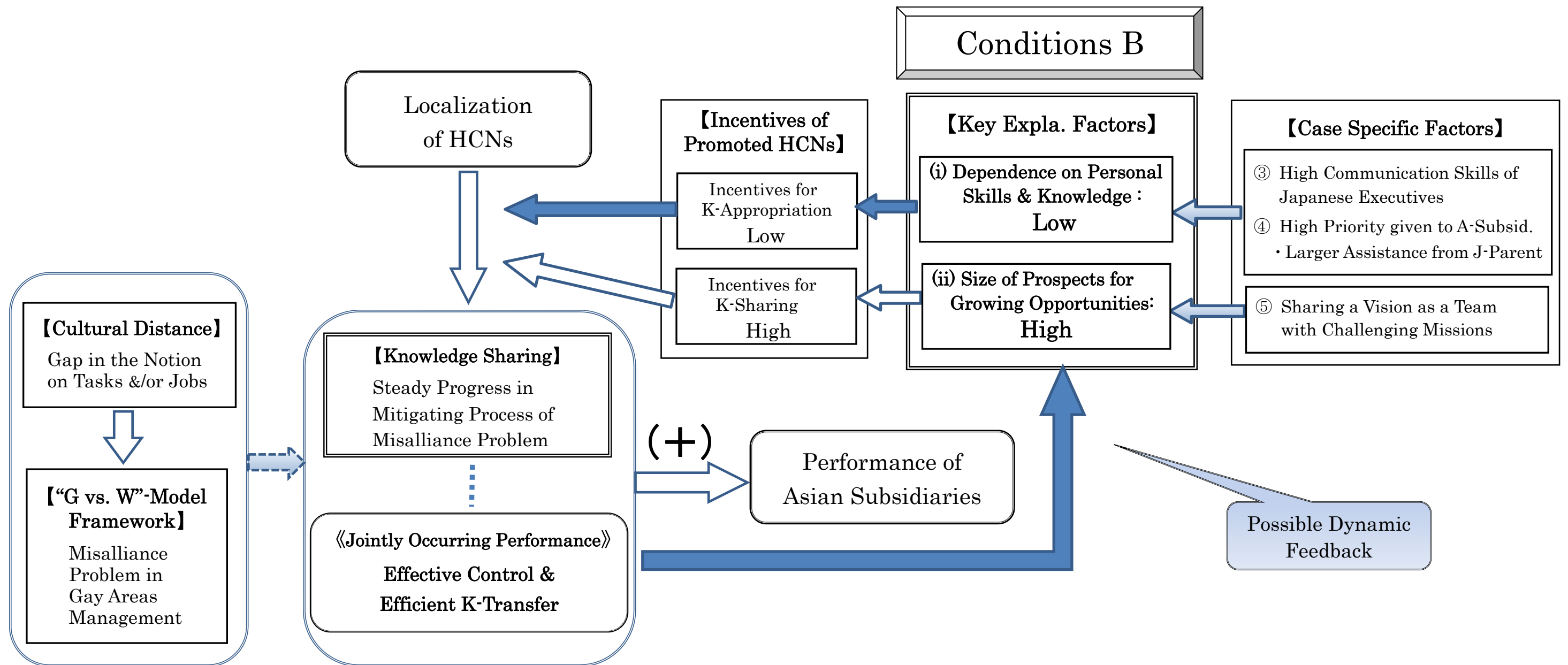
(Source) Author

Fig.9 Case Y : “Knowledge Sharing”  
under Lower Dependence on Personal Skills and Knowledge



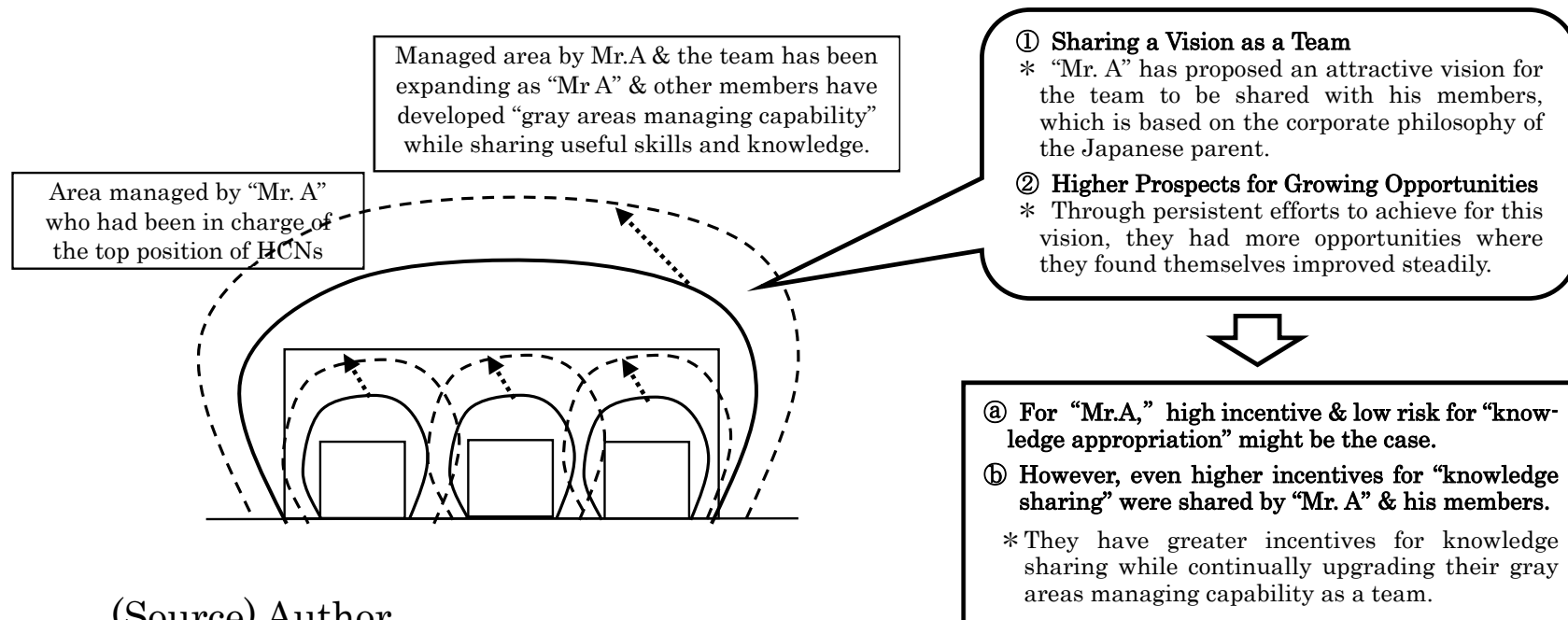
(Source) Author

Fig.10 Knowledge Sharing and Positive Effects of Localizing HCNs (2)



(Source) Author

Fig.11 Case Z : “Knowledge Sharing”  
with Higher Prospects for Growing Opportunities



(Source) Author



**Table 3 Overview of Interviews to Asian Subsidiaries of Japanese MNEs**

<b>Interview Period</b>	<b>Number of Cases &amp; Locations</b>	<b>Detailed Descriptions</b>
(1) Aug.-Sept.2007	20 cases (China: 15, Malaysia: 3, Thailand: 2)	Hayashi (2008)
(2) Mar.-Sept.2013	30 cases (China: 17, Malaysia: 11, Singapore: 2)	Hayashi (2013), Hayashi (2014)

**(Source) Author**

**< Notes >**

- 1) Among these interviewed cases, 5 cases (China: 4, Malaysia 1) were interviewed in both years of 2007 and 2013.
- 2) Among these interviewed cases, 2 cases in China (2007) and 3 cases in China (2013) were not Japanese MNEs, but they were locally established firms which were initiated by Japanese entrepreneurs.

Table 4 (1) Overview of the Three Interviewed Cases (1)

	Case X : Knowledge Appropriation	Case Y : Knowledge Sharing	Case Z : Knowledge Sharing
<b>Interviewed Year &amp; Interviewee</b>	① 2007.8 : Managing Director (J) <sup>1)</sup>	① 2007.8: Plant Manager (J) <sup>1)</sup> Division Head (J) ② 2013.8: Managing Director (J) Plant Manager (J)	① 2007.8: Managing Director (C) <sup>1)</sup> ② 2013.8: Managing Director (C)
<b>Japanese Parent</b>	* Manufacturing firm of components for automobiles & OA equipment <sup>2)</sup> * More than 300 employees	* Manufacturing firm of processed materials for electronic components * About 80 employees	* Manufacturing firm of Processed textile products * About 100 employees
<b>Overseas Operations</b>	* Quite many foreign subsidiaries in more than ten countries around the world	* Only one foreign subsidiary in Hongkong	* Three affiliates in China & one subsidiary in Bangladesh * One sales branch in Hongkong
<b>Starting year &amp; Location in China</b>	* In 1994, started in southern China as a manufacturing factory affiliated with Firm X's subsidiary in Hongkong	* In 1994, started in southern China as a manufacturing factory affiliated with Firm Y's subsidiary in Hongkong	* In 1994, started in East China as a foreign subsidiary of Firm Z
<b>Historical Evolutions in China</b>	<p>&lt;Shift in Produced Items &gt;</p> <ul style="list-style-type: none"> <li>* Components for AV products<sup>2)</sup> →</li> <li>Components for OA equipment <sup>2)</sup> →</li> <li>Components for automobiles</li> </ul> <p>&lt;Growing Areas of Operation &gt;</p> <ul style="list-style-type: none"> <li>* Standardized &amp; large-scale production →</li> <li>Initial stages of large-scale production →</li> <li>Evaluation of newly developed products</li> </ul>	<p>&lt;Shift in Produced Items &gt;</p> <ul style="list-style-type: none"> <li>* Processed materials for AV products<sup>2)</sup> →</li> <li>Materials for specific purposed products →</li> <li>Processed materials for automobile components</li> </ul> <p>&lt;Growing Areas of Operation &gt;</p> <ul style="list-style-type: none"> <li>* Standardized &amp; large scale production →</li> <li>Product development with design drawings</li> </ul>	<p>&lt;Upgrading as a Manufacturer &gt;</p> <ul style="list-style-type: none"> <li>* 1993 ~ : Contract manufacturer arranged by Japanese trading companies</li> <li>* 1996 ~ : Independent manufacturer with her own local sales function</li> <li>* 2003 ~ : Independent manufacturer with her own sales &amp; product designing functions</li> </ul>

(Source) Author

- [notes] 1) Nationality of interviewees: i.e., J: Japanese, C: Chinese  
 2) OA equipment: Equipment used for office automation (e.g., Personal Computers, Fax machines, etc.)  
 AV products: Audio & visual products (e.g., TV sets, VCRs, etc.)

Table 4 (2) Overview of the Three Interviewed Cases (2)

	Case X : Knowledge Appropriation	Case Y : Knowledge Sharing	Case Z : Knowledge Sharing
<b>Skill Development &amp; Localization of HCNs</b>	<ul style="list-style-type: none"> <li>* <b>Leadership by expatriate Japanese executives with only limited support from Japanese parents</b> <ul style="list-style-type: none"> <li>• With limited time &amp; resources, "gray areas managing capability" was developed only for limited members of core HCNs.</li> </ul> </li> <li>* <b>Strong pressures for more localization from the core HCNs, while heavily depending on their personal skills and knowledges</b> <ul style="list-style-type: none"> <li>• When the new sector was initiated, the degree of dependence on core HCNs was raised, and their strong request for more localization took place.</li> </ul> </li> <li>* <b>Knowledge appropriation by promoted HCNs</b> <ul style="list-style-type: none"> <li>• After promoted to division heads, the promoted HCNs tried to appropriate their knowledge on "gray areas managing capability", while excluding their learning opportunities from other subordinate members.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>* <b>Leadership by expatriate Japanese executives with strong support from Japanese parents</b> <ul style="list-style-type: none"> <li>• With sufficient time &amp; resources, "gray areas managing capability" was developed for larger numbers of HCNs.</li> </ul> </li> <li>* <b>Steady progresses in localization of HCNs with lower dependence on specific HCNs</b> <ul style="list-style-type: none"> <li>• Along with the steady development of "gray areas managing capability" with larger numbers of HCNs, their promotion to division heads had progressed in a steady manner.</li> </ul> </li> <li>* <b>Knowledge sharing by promoted HCNs</b> <ul style="list-style-type: none"> <li>• After promoted to division heads, the promoted HCNs tried to share their knowledge on "gray areas managing capability", while encouraging their learning opportunities with other subordinate members.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>* <b>Strong leadership by the top HCN (Mr. A) motivated by his deep empathy with the management philosophy of firm Z</b> <ul style="list-style-type: none"> <li>• Thanks to strong leadership of Mr. A, "gray areas managing capability" was developed for larger numbers of HCNs.</li> </ul> </li> <li>* <b>High dependence on Mr.A, but lower dependence on other core members of HCNs</b> <ul style="list-style-type: none"> <li>• Since the establishment in 1993, this case had been highly dependent on Mr. A as the "vice president" (1993-2005) and as the "president" (2005-2013).</li> <li>• For other positions, the promotion of HCNs had been steadily progressed as the development of their "gray areas managing capability".</li> </ul> </li> <li>* <b>Knowledge sharing by promoted HCNs</b> <ul style="list-style-type: none"> <li>• For both Mr. A and other HCNs, after promoted to division heads, they tried to share their knowledge on "gray areas managing capability", while encouraging their learning opportunities with other subordinate members.</li> </ul> </li> </ul>

(Source) Author