

TACIT KNOWLEDGE: THE ROLE AND EFFECTIVENESS IN ACQUIRING KNOWLEDGE IN INTERNATIONAL STRATEGIC ALLIANCES IN MALAYSIA

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ABSTRACT

This study examines the role of tacit knowledge in the knowledge acquisition process among international strategic alliances firms in Malaysia. The significance of tacit knowledge is discussed and the effectiveness in acquiring the tacit knowledge is analysed. Tacit knowledge plays a vital role in the knowledge acquisition process as it is very important and harder to be acquired compared to explicit knowledge. Two major issues related to the tacitness of knowledge in the knowledge acquisition process are learning capacity and accessibility. Learning capacity and accessibility were examined through personal interviews with 41 Malaysian firms that engaged in international strategic alliances. Data obtained were qualitatively analysed. This study found that Malaysian firms highly depend on foreign partners particularly on the technical knowledge though the relationship has been established for quite some time. Despite creating efforts to reduce the dependency, the reliance on the foreign firms remains high and learning process is rather slow. In accessing the knowledge from the foreign partner, local firms have to deal with eight major challenges and problems. These challenges have limited the local firms ability to learn and acquire more knowledge from the foreign partner. Trust, which closely related to the accessibility, is proved to influence the level of knowledge acquired. A higher degree of trust will ease the process of knowledge acquisition while a lower degree of trust acts vice versa. Therefore, it is essential for the local firms to develop a trust in their international strategic alliances relationship.

Keywords: *Tacit knowledge and international strategic alliances.*

INTRODUCTION

Scholars in industrial organization, technology management, management strategy, and organizational theory, have focused their attention on the importance of knowledge. Knowledge is the key source of power and the crucial resources for the modern corporation primarily in intellectual and service capabilities. The value of products and services depends largely on how 'knowledge-based intangibles' like technological know-how, product design, marketing presentation, understanding of the customer, personal creativity and innovation can be developed. Firms engage in international strategic alliances (ISA) to acquire knowledge associated with partners' skills and capabilities (Inkpen, 1996). ISA encourages access to the foreign partner's skills and provide opportunities for exploring and learning new knowledge which is crucial for firms' competitive advantage. Strategic management researchers recognized knowledge as the most important resource that firms need to value and understand to create sustainable competitive advantages (Epple, Argote & Devadas, 1991; Doz, 1996; Barkema, Bell & Pennings, 1996). A more dynamic perspective related to acquiring knowledge is the 'resource-based view' (Wernerfelt, 1984). Resource-based view, which focuses on how to achieve and sustain advantages believe that firms must possess certain key resources that are valuable, rare and inimitable, very hard for competitors to substitute and limited tradeability (Barney, 1991; Peteraf, 1993). As knowledge is seen as a resource for competitive strategies, the essence of organizational capability is in the integration of knowledge (Grant, 1996; Beeby & Booth, 2000). In integrating knowledge; the combination of present knowledge, past knowledge, and memory are required.

In viewing knowledge as a resource for competitiveness, the number of firms that engage in ISA has increased tremendously particularly in developing countries like Malaysia. Indeed, ISA becomes a major avenue for developing countries like Malaysia to partner with established firms from developed countries like US, UK, France and Japan to build up their competitive strength through technological knowledge or know-how. Indeed, the government of Malaysia, under Malaysian Industrial Development Authority, promotes the foreign firms to come and join local firms in the country by offering lucrative incentives like tax exemption and good infrastructures. For the past two decades, the involvement of foreign firms with local firms were encouraging, however, despite the positive trend, not much is known regarding the theories of knowledge in ISA particularly in Malaysia and Southeast Asia region.

The main objective to acquire knowledge has not fully accomplished in Malaysian alliance though some knowledge has been gained. The role of knowledge in ISA particularly tacit knowledge and its importance in acquiring knowledge is not well understood yet in this region. Foreign firms play a vital role in developing the country and contribute significantly to the economy, but not much is known about the knowledge acquiring process that take place in collaboration between local and foreign firms. Hence, this study attempts to examine the role of tacit knowledge in acquiring knowledge from the foreign partner, to evaluate the extent of tacitness that exists in the knowledge

acquisition process and to investigate the effect of acquiring tacit knowledge on the knowledge acquisition process.

LITERATURE REVIEW

The complexities in acquiring, transferring and integrating knowledge are more intense when it involves firms from different countries. Firms have to deal with cross-border issues like skills and cultural differences, and the challenge of adapting the organizational skills in diverse settings. Accessing to the skills and knowledge of partners is more difficult without the formal structure of alliances (Inkpen, 1998). Knowledge is a concept that cannot be seen but can only be observed in its effects. Knowledge is a capacity to act and there must be a clear distinction between knowledge and behaviour (Sveiby, 1997). Knowledge can be defined as an organized combination of ideas, rules, procedures, and information (Bhatt, 2000); or as a resource on which firms base their competitive strategies (Beeby & Booth, 2000). There are two types of knowledge; explicit and tacit knowledge (Polanyi, 1966). Explicit knowledge can be articulated in formal language including grammatical statements, mathematical expressions, specifications, manuals, and can be transmitted (Nonaka & Takeuchi, 1995). Tacit knowledge on the contrary is highly personal and hard to formalize, difficult to communicate or share with others (Nonaka & Takeuchi 1995). It is deeply rooted in an individual's action; experience; ideas; personal beliefs; and embedded in individual's commitment, and involvement in a specific context (Johnson-Laird, 1983).

Tacit knowledge can be seen through actions rather than explanations. The tacitness of knowledge is hard to estimate, but it can be seen in a spectrum where at one end it is completely tacit and at the other end it is completely explicit (Polanyi, 1966). Tacit knowledge can be like experience and expertise (Jacob & Ebrahimpur, 2001). Experience includes credentialized experience - knowledge that one need to have to be granted a degree; cultural knowledge - knowledge of the company and how things are done generally; practise-based knowledge - knowledge of company specific routines and applying them; and personal experienced knowledge - knowledge that the manager may have acquired outside the company. Expertise includes credentialed knowledge - knowledge that one obtains certification and specialist knowledge and specialist knowledge - deep understanding of a particular scientific area, and a unique blend of public knowledge and experience-based knowledge.

Elements of Tacit Knowledge

In acquiring tacit knowledge, know-how of the organization is tacit and difficult to be transferred and imitated however, the know-how can be simplified and communicated to others (Zander & Kogut, 1995; Winter, 1987; Rogers, 1983). It can be simplified through a process known as codifying, teaching and relying system.

Codifying refers to encoding knowledge, teaching refers to training given on the knowledge, and relying system refers to dependency of capabilities on experienced people. Codifying knowledge need to be codified before it is communicated and manufacturing control is one of the codified knowledge elements (Zander & Kogut, 1995). The codification of knowledge would generate learning potential and opportunities within the firms. By codifying the knowledge, the chances to understand and learn about tacit knowledge are higher. Codifying knowledge from tacit to explicit can be done through manufacturing control as it can be reflected in the level of learning via the manufacturing control activities (Zander & Kogut, 1995).

Teaching refers to the extent of tacit knowledge to be transferred through training. Communication is the key element in training which includes personal meetings and conferences, as they contain rich information compared to other means of communicating like written documents (Daft & Lengel 1984). Personal meeting include meetings, regular visits by parent employees, tour to the parent company, local-foreign partner interactions, and personnel movement, which are effective techniques for knowledge to be acquired (Inkpen, 1996). These techniques are also useful in diffusing the technology than the written mode as it transfers a richer set of information particularly tacit elements (Dutton & Starbuck, 1979). Personal meetings generate personal interactions and have significant effects during the early stage of collaborations where knowledge needs to identified and well understood (Dutton & Starbuck 1979, Daft & Lengel 1984). Personal meetings such as face-to-face meetings and conferences, can be supplemented by electronic means such as electronic mail and video conferencing, once a relationship is established. These electronic means are more valuable at augmenting existing relationships than establishing new means (Kraut, Egido & Galegher, 1990). Doing together is another technique of training that involves group work and the most common is teamwork, which permits integration from the diverse background of locals and expatriates. Personal mastery is a skill that is harder to be acquired as it need more specific practise than doing together. Team learning is important as it encourages a flow of ideas and creativity, thus enable the members to work creatively and constructively (Marquardt, 1994). Liang, Moreland & Argote (1995) and Baron & Kenny (1986) argue that members who were trained together recalled more about the tasks and made fewer errors than members who were trained apart as they exhibited greater memory and better coordinated.

Relying system involves capabilities on experienced people. Firms that continue to depend on the partner will acquire less knowledge and cannot generate their own knowledge (Inkpen, 1998). Even though firms involved in seeking knowledge, not all of them are determined and proactive to acquire knowledge. They often fail to initiate learning efforts and aggressively seek the partners' knowledge. When firms heavily rely on the relationship to acquire knowledge, firms place little value on knowledge and tend to remain dependent. The knowledge is most likely will be eroded if the relationship is terminated (Inkpen, 1998). The reliance of firm on the foreign partner depends on the usefulness of partner's capabilities to the firm. Usefulness of the capability refers to significance of the foreign capabilities to the local firms and the extent of its

utilization. The usefulness of partner's capabilities is important in creating a successful learning environment, which is fundamental in facilitating the transfer of knowledge (Huber 1991; Inkpen, 1998).

Access Ability

Access ability is a basic step to capitalize the foreign partners' knowledge (Inkpen, 1998). It is not a guarantee for acquiring knowledge but it indicates learning opportunities for the local partners to grasp the knowledge. When firms have limited access to the partners' knowledge, they have to deal with more obstacles and constraints in acquiring knowledge from the foreign partners. In evaluating access ability, the elements include: extent of access, trust and changes in organizational systems and process (Inkpen, 1998). Trust is an essential element where low trust would make partners more defensive while high trust would make partners less defensive on the knowledge. Acquiring knowledge is a process and can only be achieved when it is internalised at all levels in the organization (Von Krogh et al.1994; Nonaka 1994; Hedlund &Nonaka 1993). Involvement from all levels in the organization is required therefore knowledge can be reflected in the organizational systems and processes. Hence, the organizational systems and processes have to adapt with the knowledge acquisition process. Organizational system refers to the structures, techniques and procedures that are embedded within the firm whereas organizational process refers to how these structures, techniques and procedures are being managed. The movement of knowledge can be depicted in the organizational structures. Knowledge is less likely to be created and acquired when the knowledge is not moved to various levels in the organization. Therefore, a few changes in the organizational systems and process would reflect a low knowledge acquisition by the local partners, while if many changes occur this would reflect a high knowledge acquisition.

METHODS AND ANALYSIS

Research Design and Instrument

A qualitative methodology is used in this study as it aims to view knowledge in the social context through the eyes of the organizational members of the firm. Though the study is qualitative, it is concerned with testing the theories instead of generating theories. In analysing the social context, the researcher has to view events and the social world through the eyes of the people that she studies. Thus, a great deal of descriptive details is needed on the findings and the importance of the contextual understanding of social behaviour needs to be emphasized. Behaviour, values and other related factors therefore, have to be understood in the context. Flexibility in terms of format on the social context can enhance the opportunity of revealing the perspectives of the social phenomenon. A set of question was designed as an instrument for data collection. The purpose of having this questionnaire is to examine the tacit elements. Semi-structured questionnaire is

designed; first is a structured part while the second is unstructured. Unstructured part is prepared to address some of the issues of tacit knowledge that cannot be quantified. The reasons for the questionnaire to be semi-structure are to ensure that the interview covers tacitness issues of involved independent variables such as dependency and accessibility and to explore other possible elements that might not be yet known from literature. Tacit elements that were measured are; extent of codifying ability of tacit knowledge; extent of teaching ability; firm's relying system and access ability. Codifying ability is measured by manufacturing control, which is embodied through manuals, standard software, modified software, and developed software. These forms of control indicate the foreign firms' willingness to cooperate and commitment towards their local partners' pertaining to their knowledge. Teaching ability or extent of training is measured by communication techniques; personal meetings, conferences, face-to-face, doing together and teamwork. Firm's relying systems is measured by the extent of the dependency and usefulness of the capabilities. Access ability is measured by the extent of the local firm's access, degree of trust, and changes take place in the organizational systems and organizational process.

Population and Sample

The population is Malaysian manufacturing firms that ally with foreign firms that are involved in high-technology manufacturing sectors such as electrical and electronic, computer, chemical oil & gas industry and telecommunication. By focusing on manufacturing firms, the study is able to increase the value of the sample distribution by controlling external factors. There is no single source of data on companies with ISA in Malaysia therefore, sample was drawn from four major sources; the Federation of Malaysian Manufacturers (FMM); Foreign Companies in Malaysia: Yearbook; Malaysian Industrial Development Authority database (MIDA); and the Malaysian Trade Development Corporation database (MATRADE). The sampling design was carried out in several stages to get the real population before sample can be clustered. The companies were sorted into groups based on their sectors, and then sampled within the cluster. A census method was used to ensure that all the companies in the databases were included as the population. Filtering the databases involved two steps; first the databases were compared and redundant companies, purely foreign owned and the locally owned companies with no foreign involvement, were omitted. Second, 823 companies were identified to fulfil the characteristics and represent the real population. The population was stratified into equity and non-equity stratification to enable specific characteristics be represented in the sample.

Data Collection and Analysis

As face-to-face interview is the major technique in this study, a systematic approach was made prior to the data collection process. Before the interview, the questionnaire

was given to the respondents for an overview of the issues that would be asked. Appointments were made and questions were given prior to the interview, which allow the respondents to be prepared for the interview session. Respondents interviewed were key people in the management of the organization, such as Vice-President, Chief Executive Officer, Managing Director, General Manager, Production Manager (Senior Engineer) and Human Resource Manager. Only 41 companies were willing to participate and be interviewed. The interview was recorded by dictation machine and was also written down at the same time to ensure information gathered is not missed out. In average, each interview session took nearly two hours. Information was gathered using two methods, recording and documenting, to ensure that the information given is not being left out. The information provided during the interviews was written down in a specific column in the questionnaire and with the respondents' permission, the information was also being recorded concurrently. In analysing the feedback of the interviews, four major steps were conducted.

Firstly, the researcher identified the answers or reasons provided by the interviewee and organise them in a simpler format. Secondly, these reasons were evaluated and classified according to their common themes and were put into several categories. Thirdly, the information was interpreted and summarised. Fourthly the information about the tacit issues was finally clarified and described. In analysing qualitative data, this study followed the steps suggested by Hawe et al. (1990), and Creswell (1998). Neither analytic induction nor grounded theory was conducted as this study is not meant to develop a theory. Unstructured data was analysed systematically using four major steps suggested by Hawe et al. (1990) & Creswell (1998). First, data was organised where the data was put into an easy format to work with. This step allows the researcher to have an overall picture of the complete data set. Second, the data was shaped into information where the researcher assessed the types of themes coming through. This analysis was done by sorting the information. The different categories or types of responses found were noted down and they were separated into groups that share similar characteristics. Third, it involved interpreting and summarising the information. Fourth, it involved explaining the information.

FINDINGS OF THE STUDY

Codifying Ability

All allied firms that involved in manufacturing activities engage in manufacturing control and 50% of them adopt more than one method of manufacturing control. Some of them only engaged in a manual form while others adopted more than one. The most common methods are manual and standard software. Some firms did not adopt any manufacturing control method at all. As manuals are the most common form, the definition of a manual given by the firms is essential to be understood. A manual type of manufacturing control

has two meanings, one is a written manual like a document, and another one is a non-written manual and controlled by a professional employee. Written manuals are useful in gaining explicit knowledge but less effective in acquiring tacit knowledge. The information provided is a general guideline in conducting the tasks and superficial, thus less useful in gaining the tacit knowledge. Written manuals are available only when it involves routine work and simple tasks, occasionally it is not available. In such situation, the local firms have to develop themselves by compiling and writing the necessary guidelines and tasks for their own future reference.

However, when the tasks are non-routine and highly skilled, the knowledge is embedded in expatriates and a written manual is certainly not available. For such task, the only way to control the manufacturing is through an individual who possesses such skills. When this is the only method of manufacturing control adopted, especially in terms of the quality control, few problems tend to arise. Expatriate, as a manufacturing controllers in terms of quality of the products, particularly when the product is custom-made (specifically designed for a specific customer) are reluctant to provide the relevant knowledge. The local employees would have harder time in acquiring the tacit knowledge and skills because it depends merely on individual behaviour. Frequently, expatriates were less supportive and limited opportunities were available for them to work by themselves. The expatriates taught them about the tasks but did not allow them to conduct the task independently. The tasks were centred on assisting them and simple tasks. Some of the manufacturing control techniques are not conducted in Malaysia but in the partner's home country.

In codifying the tacit knowledge through software, very few firms embodied it in the manufacturing systems. Firms that embodied such systems used standard software rather than modified and developed software. Standard software means that the local firms adopt directly without making any changes while modified software means some changes have been made on the system to suit the local manufacturing needs. Developed software is a system that is specifically designed for the local needs and no other firms can adopt the system. Applying merely standard software implies that minimum efforts were conducted in designing the manufacturing control system. It is also economical for both local and foreign firms to apply this as they can adopt directly while the foreign partners do not have to work on the system with the locals. This situation effectively limits the learning opportunities, which are abundant if the manufacturing control system is modified or developed together. The early stage of setting up the system is for the locals to learn related knowledge. Most of the firms argued that the only way to learn is during maintenance and repair of the machines, so far these two tasks helped them to understand better the technology of manufacturing such products. The tasks aided in the learning process though the opportunities available are not as much as during the set up period. In worse condition only expatriates or foreign employees from the headquarters can carry out the maintenance tasks and local employees were not allowed to involve.

Table 1: Results on Tacit Elements

Tacit Elements Codifying ability	Indicators Standard software Modified software Developed software	Commonly Adopt Standard software (50%)
Teaching ability	Team work On-the-job training Formal training Blueprint Observing	Teamwork (90%)
Relying ability	Heavy relying Moderate relying Less relying	Heavy relying (80%)
Access ability	Easy access Moderate access Difficult access	Easy access (55%) Difficult access (30%)

Teaching Ability

In analysing the tacit knowledge, four elements are significant in the training techniques were conducted. Communicating, doing together, personal training and blueprints are the most significant elements while observing is the least. The local firms combined these four elements in accelerating the process of acquiring tacit knowledge. Communicating involves face-to-face communication, telephone, electronic mail, and frequent visits from the headquarters. These ways allow richer set of information to be transferred. Doing together, which involves group work is commonly applied through a teamwork as it employs the four elements concurrently. Teamwork permits the expatriate to design, discuss and explain the technical knowledge to the locals and promotes the interactions and sharing of experiences among the team members. When the locals and expatriates work together, it encourages learning and tacit knowledge to be acquired. The interactions facilitate the knowledge transfer process as problems, curiosities, and difficulties can be explained directly to the locals.

Formal training is also commonly adopted as it blends the four elements together. It is often conducted at the headquarters in the home country of the foreign partner but seldom implemented, only when new skills are needed like when a new product is to be launched or when changes in core technology occur. On-the-job training is another technique that combines the four significant elements. Blueprint is an element that is less significant, it become more significant when applied with other elements. The

blueprint is more vital after the training rather than during the training as it is needed for the concern employee to refer or to disseminate to others.

Observing is another element that is less significant when implemented alone but more important when applied with other elements. Some tacit knowledge is more effective to be acquired through observation, thus some firms adopt this method along with other methods primarily in the R&D department. Local employees would learn more about the tacit nature in their tasks via observing. However, compared to blueprints, observation is the least common implemented by the local firms. Other elements found in this study that could enhance the training techniques but was not discussed in the literature are controlling and supervising. Controlling and supervising are significant elements to boost firms' involvement and commitment from both expatriates and locals. The interactions that spark from these elements will provide greater learning opportunities in acquiring tacit knowledge.

Relying Ability

80% of firms were relying on foreign counterparts in core and technical activities conducted. Two reasons for their reliance are; when no other local firms in the country can provide the knowledge they require and when the production resources are not available in Malaysia. The most required knowledge that always not available in the country is the technical knowledge. For instance, for firms that involved in the power cable sector such as supplying electric power, producing fibre optics, producing switch gear and cable design, they have to seek knowledge from the foreign firms because no local firms have such knowledge. The partners are mostly Japanese and German who are among the major world players in the industry and the only way to acquire their knowledge is by working closely with them. When certain production resources are not available in the country, local firms have to rely on foreign partners to ensure production process can be turned on. The reliance is mostly on sources of production such as machines, raw materials and manufacturing components (physical capital), which are the primary factors for the operations.

Local firms rely on foreign counterparts for two sources; the technical expertise and physical capital. The reliance on foreign resources will also lead to reliance on their technical expertise. But firms that rely on technical expertise not necessarily sought the sources of production from their partners. Local firms also depend on foreign partners for new product development, and research & development (R&D), which are also related to the technical knowledge. The reliance has caused the local firms to less able to plan their future direction and upcoming manufacturing activities. For instance, few firms claimed they are still lack of design and engineering skills to develop their own new products and further research, therefore, they have to rely on the foreign partners for R&D and new product development activities. The local firms also have to rely on foreign partners firms for their operations while realizing the risk. Though efforts have been made to solve the problem, little progress could be seen from that.

Access Ability

55% had an easy access while 30% had a difficult access to foreign knowledge. The main reason for easy access is to ensure products manufactured reached their specification and quality similar to other parts of the world. This is imperative for the foreign partners to maintain the product standard and firms' reputation. Almost all firms involved in contract manufacturing (one type of contractual agreement) in the electronic manufacturing services received satisfactory access to the knowledge from their foreign counterparts. Similarly, when the local firms act as foreign firm representative, in the case of licensing for instance (a type of contractual agreement), access to the foreign knowledge is less hassle. Accessing to the licensors' knowledge is crucial to maintain the products standard and upgrade the products knowledge, which is significant for licensor's reputation and worldwide image.

For firms that had difficult access to foreign knowledge, five factors were identified to restraints local firms from accessing the knowledge. They are; limited qualified local employees; employee turnover; expatriates' behaviour and period of service; documentation and limited involvement of local partner. *Limited qualified local employees* -there is a short supply of engineers or highly skilled-workers among Malaysians. Lack of skilled-employees to learn the new knowledge, the possibility to access and acquire the knowledge is smaller. Even though the foreign partner might be willing to allow the access, the limited number of leaner restricted the knowledge to be fully accessed and acquired. *High turnover* -accessing to foreign knowledge is more difficult when the responsible employees left the company after they had been trained. High turnover make it difficult for firms to retain knowledge in the organizations as it retards the process of disseminating knowledge to the whole organization. The same learning process needs to be repeated on new employees, which is very costly. *Expatriates' behaviour* – expatriates' as an individual behave in certain ways and their behaviour differs from one to the other though they come from a similar country and organizational cultures. Their behaviour will sometimes determine the extent of knowledge access. Some expatriates willing to teach more

The expatriates' ability to communicate and explain things to the locals and their willingness to join with locals in other activities also would significantly aid in transferring knowledge to them. This allows more knowledge to be accessed and acquired compared to expatriates who are less able to communicate and like to work on their own. *Documentation* - keeping the document as guidelines and records are necessary for disseminating to the whole organization and future direction. Surprisingly, very few foreign partners provide written manuals and very few tasks are well documented. Most of the key tasks especially those that are high-skilled tasks are not available in any form of document but learned verbally. Only those who are responsible for the tasks can gain access to the knowledge. This indicates that tacit knowledge was not being turned into explicit thus making access to foreign knowledge more difficult. *Limited involvement by local partner* - foreign firms are being chosen as partners based

on their technology and management know-how. Their limited involvement in the operations will retard the knowledge acquiring process. Limited involvement occurs when local firms are involved only in certain types of operations, thus merely certain types of skills can be accessed. Certain type of knowledge is not being known to the local partner and on occasion only available in the headquarters. When local firms involved in certain types of operations, they also experienced low accessibility. Local firms that involved in technical assistance such as contractual manufacturing, have limited access to the foreign knowledge as the job and equipment are restricted to those that they perform and use. Apart from that, they have no access at all to other kinds of knowledge.

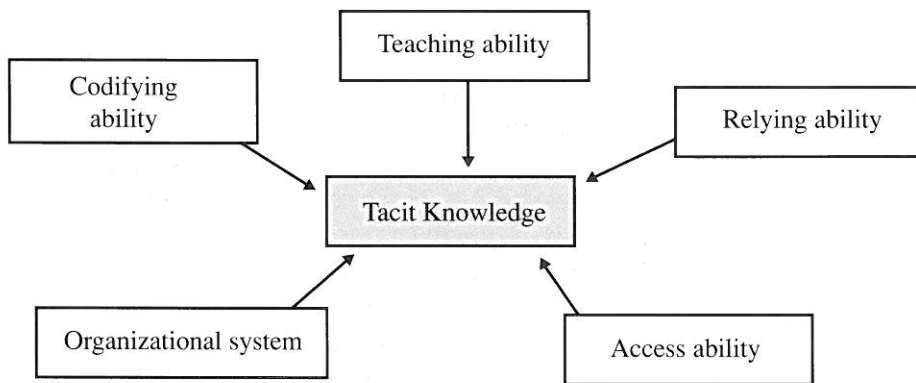


Figure 1: Organizational System

Changes that take place in the organizational systems and organizational processes depicted the impact of knowledge acquired. Very few firms experienced major changes in their organizational system and organizational process, while most of them experienced few changes in their organizational systems and organizational process. The limited changes are due to fact that firms only focus on technical know-how rather than the organizational process. As a result, only technical employees such as engineers and supporting employees involved in the knowledge acquiring process while others were not engaged at all in the knowledge acquiring process.

DISCUSSION

This study endeavours to investigate the role tacit knowledge and its effectiveness in acquiring knowledge from the foreign partner. Three elements of tacit knowledge; manufacturing control, training and relying system were assessed with the method to access to the foreign knowledge. These elements were qualitatively analysed using

data on Malaysian firms that are engaged in joint ventures and contractual agreement in high-tech sectors. The findings of this study helped to enhance the understanding of tacit knowledge and development of theories in knowledge acquisition process concerning ISA in Southeast Asia. The contributions made by this study are: first, to the best of our knowledge, this study is the first to examine the tacit elements in knowledge acquisition process of ISA in Southeast Asia. Second, this study provides the details and insights of the knowledge acquisition process that is not well understood by the Malaysian government but have a significant impact on the industrial and investment policies of the country. Finally, this study discovers the core element that is crucial in the knowledge acquisition process of Malaysian ISA.

This study shows that Malaysian firms that are engaged in ISA did not fully understand the presence and importance of tacit knowledge in the knowledge acquisition process. This lack of understanding has led firms to disregard the elements of tacit knowledge in the knowledge acquisition process. Consistent with previous studies, this study found that when tacit knowledge is not codified and simplified, the chances for the knowledge to be acquired might not be possible. This study also revealed that firms acquire less knowledge when they depend on the partner. This dependency creates low learning potential and learning efforts, thus internalisation of knowledge might not be possible. The minimum effort made in codifying knowledge and a heavy reliance on foreign partners for the core activities revealed a very low understanding on the significance of tacit elements in knowledge acquisition process. This study also uncovers that the knowledge acquisition process among Malaysian firms that engaged in ISA did not incorporate many tacit knowledge elements.

Subsequently, though firms applied good training techniques in the process, it is not a guarantee that knowledge can be acquired. The effectiveness of the knowledge acquisition process relies on the efficiency of the implementation rather than the techniques itself. The effectiveness in implementing learning efforts is quite low as the tacit elements were not involved. As shown in previous studies, teamwork was significant and widely conducted in the ISA. However, the necessary tacit elements such as codifying special skills, expertise and independent decisions were not clear. Other tacit element of training like personal mastery apparently is not obtained by the local firms.

This study also found that accessing to the foreign knowledge but not the tacit knowledge has resulted in unsuccessful knowledge acquisition. The focus of firms on explicit knowledge rather than tacit knowledge has resulted to in high dependency on foreign partner. This is due to the lack of understanding on the tacit knowledge itself and limited acculturation of tacit elements in the knowledge acquisition process. Unexpected finding from this study reveals that contractual agreement firms tend to gain easier access to the foreign knowledge while joint venture firms conversely tend to have more difficulties in gaining access to the foreign knowledge. Such differences exist between the two types of ISA because they vary in their governance structure and degree of expectation from the foreign partners. The finding also reveals that knowledge acquisition

process did not spread to the whole organization but rather concentrated in a specific department. This signifies that other organizational members did not involve themselves and share the foreign knowledge, which eventually retards the knowledge acquisition process.

LIMITATIONS

This study has few limitations. First and foremost is its sample size, which is rather small. Thus, it limits the number of analysis that can be conducted. The responses received for this study may differ from non-respondent firms as the sample is biased towards better performing firms. Finally, the qualitative nature of measuring the tacit knowledge is subject to bias. It might be influenced by the background and experience of the interviewees.

CONCLUSION

The finding of this study highlights the roles of tacit knowledge in knowledge acquisition process in the Malaysian manufacturing industry. The importance of tacit knowledge cannot be ignored if firms are in the process of learning and acquiring knowledge. This is crucial not only to the industry, but also to the whole country as Malaysia is heading towards knowledge economy. The findings suggest that Malaysia needs a great deal of efforts in achieving such objective. Enormous efforts are needed to make the firms understand what tacit knowledge is, its importance in acquiring knowledge and its implication in sustaining firms' competitiveness. The findings also raised several queries regarding the firms' dependency, training techniques, accessing to foreign knowledge and organizational process. Future research should further trace the roles of tacit knowledge and its importance to Malaysian ISA as the economy develops.

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