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Jamsari Alias & Norazila Mat

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Understanding Knowledge Transfer Within Mnc Subsidiary Through Episodes

Jamsari Alias[1] & Norazila Mat[2]
[1]Pusat Pengajian Citra Universiti, Universiti Kebangsaan Malaysia, [2]Faculty of of Economics and Management, Universiti Kebangsaan Malaysia
Email: jamsari@ukm.edu.my

Abstract
With the expansion of the multinational corporation (MNC) has come a necessity to comprehend how parent companies manage the operations of their subsidiaries and transfer knowledge to them. Japanese businesses have been leading the way in this area, using methods like the Toyota Production System (TPS) to transmit the philosophy of Japanese manufacturing and uphold quality and control in foreign operations. The process of transferring Japanese manufacturing skills has received a great deal of attention, but little is known about how the subsidiaries themselves, which are expected to employ these processes, actually acquire and integrate them into their operations. This paper looks at the transfer of manufacturing knowledge from the parent business to the subsidiary from their point of view. An in-depth qualitative research was, therefore, conducted in the subsidiary of a Japanese multinational, involving three primary manufacturing projects (or philosophies), namely 'TPS', 'TPM' and 'TS'. The case data were obtained from 52 in-depth interviews with project members, moderate-participant observations, and documentations. This research advances our comprehension of knowledge transfer in light of the methods applied within the subsidiary, how the whole process is developed, and more importantly, the usage of episodes in snapshots are utilized in understanding the process.
Keywords: Knowledge Transfer, Subsidiary in MNC, In-Depth Practice-Based View, Episodes, Malaysia.

Introduction

Multinational businesses (MNCs) have grown quickly during the past forty years. Recently, academics have turned their attention to the topic of knowledge, specifically how MNCs manage their knowledge, and have been examining factors of economic stimulus as well as their presence and development (Gupta and Govindarajan, 2000).

Due to the rapid expansion of MNCs, it is increasingly necessary to comprehend how parent businesses manage the operations of their subsidiaries and transfer knowledge to them (Alias et al., 2008a). This is especially relevant to industrial enterprises that are expanding internationally. The development of methods like Kaizen and components of the Toyota Production System (TPS) like Kanban, which can be useful tools for transferring the philosophy

of Japanese manufacturing and maintaining quality and control in overseas subsidiaries, has been spearheaded by Japanese businesses in particular (Alias et al., 2008b).

Knowledge transfer is described as "the process through which one unit (e.g., group, department, or division) is affected by the experience of another" (Argote and Ingram, 2000: pg 151). Argote and Ingram (2000) further point out that the transfer of organisational knowledge (i.e., routine or best practices) can be seen through modifications in the recipient units' performance or knowledge. This development of knowledge transfer is getting more significant specifically in the multinational corporations (MNCs). Because of this, it is necessary for these distributed organisations' knowledge to be transmitted from one person, group, department, or geographic division to another in order for efficient management to take place (Alias, 2013).

MNCs often handle operations throughout a number of nations from their home nation. A home office corporation or MNC's head office is typically referred to as the "parent," while the businesses that are located in other nations are referred to as "subsidiaries." The subsidiaries typically provide significant financial contributions to the MNCs, making significant direct investments abroad and actively managing and integrating activities in several foreign nations (Birkinshaw, 1996).

Understanding how parent businesses transfer their expertise to and manage the operations of their subsidiaries is extremely important given the rapid rise of MNCs (Alias et al, 2008b). Production firms, especially Japanese multinational corporations that have many of their manufacturing operations abroad, are particularly interested in this. Japanese businesses in particular have been trailblazers in the development of methods like Kaizen and components of the Toyota Production System (TPS) like Kanban, which can be helpful tools for transferring the philosophy of Japanese manufacturing and maintaining quality and control to overseas affiliates (Alias et al., 2008b).

A excellent contextual setting for a study of knowledge transfer is the Japanese MNC. In the literature that is now available, academics have become increasingly interested in the significance of knowledge management in businesses, particularly in MNCs (e.g., Ghoshal and Bartlett, 1988; Kogut and Zander, 1995; Szulanski, 1996; Gupta and Govindarajan, 2000; Eisenhardt and Santos, 2002) in which many projects involves different types of knowledge. This position offers opportunities for more research into this subject, particularly when it comes to subsidiaries with locations in foreign nations like Malaysia (Alias et al., 2008a).

Regional and international knowledge transfer between parent corporations and their subsidiaries has often been studied from a macro viewpoint (e.g., Gupta and Govindarajan, 1991; Gupta and Govindarajan, 2000). Although there has been much written about the process of transferring Japanese manufacturing techniques, there is still a lack of evidence regarding the knowledge transfer process at the micro level, or how the subsidiaries themselves use, acquire, and integrate such techniques into their operations. To gain a fuller understanding of the processes that take place inside an MNC subsidiary, including the roles individuals undertake in the process of knowledge transfer, it is crucial to look into the topic of knowledge transfer in a micro environment (Alias, 2013)

Therefore, by focusing on the projects inside the subsidiary, this research adopts the perspective of the subsidiary to investigate how knowledge of manufacturing processes is transferred from a parent firm to its subsidiaries. According to Blackler (1995) and Koskinen (2003), projects often involve individuals from many organisational levels and cross-sectional flows throughout the structure of an organisation and its subsidiaries. The majority of knowledge is thought to be generated, communicated, and transferred throughout projects (Nonaka and Takeuchi, 1995; Alavi and Leidner, 2001; Bender and Fish, 2000). As a result, the process of knowledge transmission may be easily seen and understood, and the research's validity is guaranteed (Alias et al., 2008b).

By looking at a subsidiary of a Japanese MNC in order to understand how local managers and operations adopt the transferred knowledge into their working practises, this study specifically explores the micro viewpoint of knowledge transfer. In depth, the examination of knowledge transfer from this standpoint can clarify what knowledge is communicated and how it is put into practise (Alias, 2013).

Replication and adaptation are the two major methods often employed to fit in with the local environment when it comes to knowledge transfer between MNCs and their subsidiaries (Szulanski et al., 2002; Williams, 2002; Chini, 2005). Replication is the phrase used to describe a scenario in which information is duplicated or reproduced from its original source. On the other hand, adaptation of knowledge happens when someone (the recipient) adjusts the information.

In this regard, the micro-environment of an MNC subsidiary will offer the chance to obtain a deeper understanding, which is in accordance with the recommendations regarding the need to understand how local managers and operatives apply the information to their working practises from the perspective of practise (Alias et al., 2008a). The Japanese MNC is an appropriate contextual setting for a study of knowledge flow since, in recent years, there has been increasing interest among researchers in the role of knowledge management in organisations, particularly multinational corporations (e.g., Szulanski, 1996; Szulanski, 2000; Gupta and Govindarajan, 2000; Eisenhardt and Santos, 2002; Birkinshaw, 1996; Oliver et al., 1998; Minbaeva and Michailova, 2004) where many forms of knowledge flow have been studied.

According to Kostova (1999), making existing knowledge beneficial to the organisation requires good top-down and bottom-up communication. However, it can be challenging to effectively communicate across the hierarchy, which makes the transfer of information particularly challenging (Davenport and Prusak, 1998; Schlegelmilch and Chini, 2003; Edwards et al., 2005). Knowledge transfer will be improved inside an organisation if it enables open communication networks where information providers and information searchers may evaluate information and knowledge through quicker and more efficient routes (Alias et al, 2008a; Alias, 2008c). Additionally, since the initial stages of MNC programmes, such as in the activities of the quality circles and the zero-defect programme, the application of the various levels of hierarchy and the flow of order in an organisation has been seen (Bennett, 1986; Kenney and Florida, 1995).

It is more significant if the organisational environment is designed to support projects requiring knowledge flow from many directions that might appropriately match with the diverse flow and are mandated by the projects themselves. This relates to the issue of face-to-face interactions and meetings between organisational members versus knowledge explained in databases or manuals, routines and procedures, and routines and procedures, in which any other form of different communication flow in a related area is under investigation (Alias et al., 2008b; Alias et al., 2020).

These opinions, which have been voiced in many studies, are influencing the direction of study in this area and providing fresh perspectives on how distinct information flow processes operate and operate differently, as well as how they are involved in and take place (Alias et al., 2008b; Alias et al., 2020). The motivation or the driving force behind this study is that it increases our understanding of knowledge transfer by utilising the techniques used inside the subsidiary, how the entire process is formed, and, most crucially, the use of episodes in snapshots in comprehending the process involved.

Therefore, the main objectives of this paper are

- to understand the processes of how MNC parent companies transfer knowledge of manufacturing operations to their subsidiaries.
- to explore how the MNC subsidiaries replicate and adapt knowledge from parents companies
- to understand the events in which replication or adaptation occurs

Gambatte Corporation: Context of The Research

The Gambatte* Corporation (* anonymously mentioned in this paper as Gambatte) is among top supplier of cutting-edge automotive systems, components, and technology to all the major manufacturers in the globe (Alias et al., 2008b; Alias et al., 2020). With more than 112,000 personnel engaged in all facets of the automobile industry, it operates in 32 nations and territories. For the fiscal year that concluded on March 31, 2007, the Corporation's global consolidated revenues reached US $30.6 billion thanks to sales, product development, design, and production, as well as collaboration with local automakers and suppliers to offer the best answers to local needs (Alias, 2013).

Each Gambatte associate (employee) must embody the Gambatte spirit of creativity in thought and steady in action, be cooperative and pioneering as well as trustworthy in order to uphold the company's management principles, which are focused on customer satisfaction through the provision of quality products and services, global growth through anticipation of changes, environmental preservation and harmony with society, corporate vitality, and respect for individuality (Alias, 2013; Alias et al., 2008b; Alias et al., 2020).

Since its establishment in 1980, Gambatte (Malaysia), the research site chosen for this paper, has grown to become the nation's largest manufacturer of automotive components and a significant supplier of automotive components to both national car projects and Japanese vehicles assembled in Malaysia. It is a subsidiary wholly owned by Gambatte Corp (Alias et al., 2008b; Alias et al., 2020). Gambatte, a name that is immediately linked with quality, continually chooses and implements improvement initiatives that have the biggest influence on the most important company plans and goals. This is accomplished via ongoing attention

to achieving high quality and productivity, product design optimization, waste reduction, and manufacturing process variety (Alias et al., 2008b; Alias et al., 2020).

Gambatte (M) has consistently taken proactive, creative measures. It is one of the first companies in the Gambatte Group of Companies to receive the esteemed ISO/TS 16949 certification from the SIRIM and "International Automotive Task Force (IATF)," an organisation that speaks for automakers and suppliers around the world. Additionally, the business has obtained ISO 14001 Environmental Management System certification, demonstrating its dedication to and efforts in environmental preservation (Alias et al, 2008; Alias et al., 2020).

There are numerous projects underway at this plant, but three major ones have been purposefully chosen to correspond with the three main manufacturing initiatives (philosophies) that would provide a clearer understanding of how they are transferred.

First Case – Gambatte TPS (Toyota Production System)
Gambatte TPS has a long history, dating back to 1973 at GJP (Gambatte Japan – the HQ of Gambatte Group). This stemmed from a Kaizen Activity directed by Toyota Motor Corporation, which designed this TPS system, and thus the name - Toyota Production System (TPS), which has become a globally recognised established manufacturing standard, particularly in the automotive sector, and particularly in relation to lean production initiatives (Alias et al., 2008b; Alias et al., 2020).

Line improvement (kaizen) initiatives have been held individually since 1996. Individually in this context should not be read as an individual person per se, but rather as an effort carried out individually in distinct departments to which the members were assigned, resulting in a negligible influence on the organisation overall (Alias et al., 2008b).

In 2002, a company-wide TPS team was formed (initially known as the Kaizen Project Team). It brought together all of the participants to begin the initial upgrade in the Thermal System Plant's Condenser Line. This required tight transfer supervision from the Japanese HQ manager who came to GMY to deliver the first Kanban Simulation training.

The Kaizen Project Team was revamped in 2003 to become the TPS Project Team, with eight members directly overseen by the MD. The TPS Team was split into two divisions in 2004, the Improvement Team and Small Fabrication. The former component is concerned with line improvement, whereas the latter is concerned with machinery or equipment. Finally, in 2005, this TPS project team was elevated to the status of department, and this reorganisation established the TPS Department as a company-wide activity (Alias et al., 2008b; Alias et al., 2020).

This TPS Department Project served as the primary empirical site for the researcher, who interviewed important individuals and observed their relationships formally in meetings as well as in casual contacts.

Second Case – Gambatte TPM (Total Productive Maintenance)
TPM is an abbreviation for Total Productive Maintenance. The Gambatte TPM Project has a 40-year history dating back to GJP (Gambatte Japan – the HQ of Gambatte Group). However, in Gambatte Malaysia (GMY), TPM is somewhat different from that published in textbooks, as it is more towards a management kind of activity or job, in terms of how to co-ordinate it to benchmark against worldwide activity, because TPM is regarded an international sort of activity. TPM is concerned with machines, how they are kept or maintained in general, and focuses on how to improve machine maintenance in general, which includes investigating who handles the machines, what systems maintain the machines, and how to improve machine knowledge, which, of course, necessitates education and training (Alias et al., 2008b; Alias et al., 2020).

TPM in GMY entails the execution and coordination of all of these operations, "as a system, and TPM in Gambatte is a unique activity by itself, it's not only like the normal TPM per se in the international market where there are pillars, elements and so on, but the TPM that was brought to us from GJP to GMY is more on Gambatte way of TPM. It is very unique activity because in TPM the Gambatte way, we are looking at a very specific area, on maintenance management", said Mr M, the GM (TPM co-ordinator) (Alias, 2013).

Third Case – Gambatte TS Project
TS16949 is a new international system designed specifically for the automotive industry. As with TPS and TPM, the researcher was able to conduct extensive interviews with the project's co-ordinator, who is also the GMY Quality Director, Mr N. The TS team is made up of middle management from each department in GMY. They are comparable in the middle zone of the hierarchy (Alias et al., 2008b; Alias et al., 2020).

TS16949 is a new system that replaces ISO9000 and 9001, which are well-known systems that have been in place since 1994. Unlike the others, however, TS imposes additional requirements in addition to the ISO requirements that the Gambatte team members are already familiar with, and in order to fully understand this new system, GMY has had to engage an external consultant to teach the team what the system expects and how to implement it (Alias et al., 2008b; Alias et al., 2020).

Methodology, Purposes and Questions
The preceding review shows that, while the issue of knowledge transfer in MNCs has received significant attention in the literature, there is still a lack of understanding about how subsidiaries incorporate knowledge about manufacturing techniques from their parent companies.

Therefore, the purpose of this study is to comprehend the procedures parent businesses use to impart expertise of industrial operations to their subsidiaries. How subsidiary both duplicate and adapt knowledge from parents, as well as the situations in which replication or adaptation occurs, is another issue that is very pertinent.

The Main Research Questions are

- How do parent businesses transfer manufacturing operations expertise to their subsidiaries, and how does the knowledge spread inside the subsidiary?

A qualitative case study is used in the methodological approach, with three instances from three separate projects in a subsidiary of an MNC (GMY) that involves three significant manufacturing endeavours (philosophies).

This case study is an empirical investigation that looks at a current phenomenon in the setting of real-world events where the distinctions between phenomenon and context are not always obvious (Eisenhardt, 1989; Strauss and Corbin, 1998). This approach is recommended when "the investigation has little control over events and when the focus is on a contemporary phenomenon within some real-life context and its generalisability is determined by strength of the description of the context" (Yin, 1984, p23).

When a phenomena is vast and complicated, a comprehensive, in-depth analysis is required, and a phenomenon cannot be investigated outside of the context in which it happens, the case study technique is helpful (Yin, 1994) and a case study often combines a number of qualitative data gathering techniques, including interviews, documentation, and observations, but it may also contain quantitative information, such as surveys and time-series data (Crabtree and Miller, 1999).

The study used an inductive methodology and qualitative approaches to collect data from three cases from GMY: TPS, TPM, and TS. The information was gathered through 52 individual interviews with project members, moderate-participant observations, and supporting documentation.

The whole data set includes 52 60-90 minute interviews, nine meetings (formal and ad hoc), one open seminar, two staff training sessions, three factory visits, five lunches and informal gatherings, and documentation of project materials. The data generation procedure was a lengthy one that comprised a series of e-mails and phone calls. The transcription of the interview and meeting material totaled almost 900 pages. Throughout the data gathering procedure, pictures, documents, and images were also acquired. More importantly, the data are collected via a setting of episodes.

An episode represents the recollection of scenes of the knowledge transfer process captured as it happens according to what and how the knowledge is transferred. Its actual length varies from 15 minutes to one hour accordingly. These episodes are important in gaining an understanding of the process of the knowledge transfer, and they highlight that each process has its uniqueness, as well as show how the subsidiary acquires the knowledge and subsequently incorporates the manufacturing techniques in its daily function.

Thematic analysis was used to analyse the data based on (Boyatzis, 1998). Each interview was taped and the transcripts were then analysed using deductive coding (based on prior research) in accordance with the template organising style by Crabtree and Miller (1999), as well as the inductive coding (themes coming from interviews) method of (Boyatzis, 1998). The textual data produced from interview transcriptions were analysed utilising identified general themes and patterns (Alias, 2013; Alias et al., 2020).

In qualitative research, data collection and analysis are intertwined. After coding, the codes with similar features were combined to form categories, and the coded data sections were

organised according to the techniques used for data collection (Hall, 2006). Some codes were assigned to many categories. The categorised information was printed out and manually placed in folders labelled with the categories. Each research question was then surrounded by the categories that each data gathering technique produced (Alias et al., 2008c; Alias et al., 2020).

The themes and sub-themes that arose were then collected together after the linked patterns were joined to form sub-themes. The topic analysis was further validated by consulting the literature and, on occasion, by seeking comments from the respondents, giving it considerably more substance. The saturation points were attained for the constant-comparative approach used to analyse the qualitative data, which was then confirmed by the fresh discoveries. Finding the answers to the research questions required this method (Alias et al., 2008c; Alias et al., 2020).

The connected patterns were then integrated into sub-themes, and the themes and sub-themes that formed were grouped together. Further validation was obtained by consulting the literature and, on occasion, asking the respondents for input, making the theme analysis much more specific. The qualitative data were further analysed using a constant-comparative approach, and the saturation points were obtained to corroborate the new findings. This procedure was crucial in obtaining answers to the research questions (Alias et al., 2020)

Findings and Discussions on Approaches in Knowledge Transfer

The results are meant to highlight the importance of comprehending knowledge transfer inside the subsidiary. The data analysis shows that there are three basic ways that knowedge is conveyed, which are *replication, adaptation,* and *innovation.*

More significantly, the usage of the episodes method in this study is beneficial because the technique gives a clear understanding of the process of knowledge transfer since the respondents provide an account of what actually happens during the process. Expressed in terms of story-telling by the researcher, the episodes are offered in acknowledgement of the known importance of placing stories in organisational research which has become recognised in leadership and management, as well as in the area of medical, psychology and education that would bring out the real-life situations into pictures and words (Polanyi, 1998; Broner et al., 2001; Jashapara, 2004; Davenport, 1998)

The episodic analysis supports answering the research objective of finding the 'circumstances' in transferring the knowledge such that it is possible to distinguish between replication and adaptation by providing an overall picture of how the knowledge of manufacturing practises is transferred, highlighting the exact reality of the context. The categories are developed inductively from the data episodes obtained on the Gambatte site through the researcher's examination of the three projects.

The episode layout is critical in this study because it depicts the places, settings, and occurrences where most information is generated, exchanged, and transmitted in real life. As a result, the information transfer process may be readily viewed and understood, allowing the presentation to have high validity and uniqueness of how knowledge transfer occurs in a real setting. This is a unique aspect of this research.

According to what and how the information is transmitted, an episode is a memory of events from the knowledge transfer process that were recorded as they occurred. Its real duration ranges from 15 minutes to an hour. These events are crucial for understanding the knowledge transfer process because they demonstrate how distinctive each process is and how the subsidiary gains information before incorporating manufacturing procedures into its routine operations.

The setting, the debates, and a summary make up each episode. The episode's central scene gives specifics about the action. The discussion then follows with a better analysis of the data in an effort to address the research question, and the summary wraps up the entire programme. There is a total of 16 carefully chosen episodes, which should cover every plant and manufacturing philosophy involved that are coded as Plant 101, Plant 102 and Plant 103. Therefore, it is wise to present the episodes based on "the plant times across the lines" (ie; the production plant times (X) lines) of the production facilities across the three philosophies of Japanese Manufacturing Initiatives (TPS, TPM and TS); as this presentation will represent a more equally distributed and holistic illustration of the whole case can be achieved throughout the entire episodes.

The presentation of the episodes and its descriptions are also written from the viewpoints of the subjects (the personnel involved). Further interviews are combined with observations to strengthen and enrich data collected from interviews, hence contribute to data reliability and validity. The layout – the arrangement of the plants and lines are as the following Table 4.1:

Table 4.1
Arrangement of the Plants and Lines across Episodes

Gambatte (M)		**Philosophies / Manufacturing Systems**		
Plant	Lines	TPS	TPM	TS
101	Condenser	**Ep 2**		
	Evaporator		**Ep 8**	
	Piping	**Ep 3**		
	Compressor	**Ep 9**		**Ep 14**
	Training Room	**Ep 10**		
	Maintenance Office		**Ep 16**	
102	Ventilator & Heater	**Ep 11**	**Ep 5**	
	Cooling Unit & Blower			**Ep 4**
	Radiator			**Ep 1**
	Meeting Room	**Ep 12**		
	Maintenance Room		**Ep 15**	
103	ECU (Engine Control Unit)			**Ep 6**
	CDI Amplifier		**Ep 7**	
	AC Amplifier & Controller			**Ep 13**
Total of Episodes per Manuf Systems		**Six**	**Five**	**Five**

The representation of the episodes is listed below, with the numbers indicating where the episodes are located within the production lines according to Table 4.1. There are 16 selected episodes that cover all the plants and the philosophies (manufacturing) involved namely;

Episode 1: Gemba & Abnormalities Treatment
Episode 2: TPS Activity Board
Episode 3: Champion
Episode 4: Super-Operator & Visualisation
Episode 5: Training – theory and practical
Episode 6: Charts with different Colours of Pen
Episode 7: Daily Maintenance and Five Ss
Episode 8: TPM Corner & WWA – "Why Why Analysis"
Episode 9: Kanban Card System
Episode 10: Production Line Simulation
Episode 11: Gambatte Culture of Ownership & TPS Layout in action
Episode 12: Asean Jeshuken
Episode 13: Customer Complaint
Episode 14: Process Control at Production Line
Episode 15: Control of Machine Spare Parts
Episode 16: Preventive Maintenance

An episode is a remembrance of episodes from the knowledge transfer process that are captured as they happen based on what and how the knowledge is conveyed. It might be presented as 5 to 15-minute highlights from a movie or documentary. The real length of each episode ranges from 15 minutes to one hour. These incidents are critical for understanding the knowledge transfer process and demonstrating how the subsidiary gains information and then implements manufacturing practises into daily operations (Alias, 2013). Each episode also depicts other aspects of knowledge transfer, such as the medium, mechanism, and roles of the players involved (Alias, 2013).

The Scene is the episode's centrepiece, detailing a "component of a process or an activity." It's akin to a 5 to 15-minute movie trailer, however the facts are delivered verbally rather than visually. Each of the "real situations" in the scenes is "telecast" to reveal the episode's complete contents (Alias, 2013). To guarantee that each scene's plot flows eloquently, the scene's sub-contents are merged together with actual actors, views of events, and settings to create clear comprehension and logical knowledge transfer scenario.

The extent of the literature on knowledge transmission demonstrates two basic techniques to information transfer, namely replication and adaptation. To summarise, when information is duplicated or reproduced, the term replication is used to suggest that it is an exact reproduction of the original source. Adaptation, on the other hand, refers to a circumstance in which certain changes are made to the knowledge (Szulanski, 1996; Von Hippel, 1994).

Replication happens in this research when there is a demand for repetition, with the transmitted information exactly reflecting the original knowledge. Replication is also seen when the parent firm requires greater paperwork and standardisation. In the case of adaptation, however, knowledge is altered to meet the demand for understanding, and

explanations are necessary (Alias et al., 2020). Whilst Williams (2002) has made the generalised statement that adaptation requires more understanding and replication requires a more discrete approach, this study has added to the body of literature by describing the dimensions, criteria, and categories of what and how these approaches actually function in practical settings.

And the discovery of a third technique from this study, called "innovation," adds to the originality of the emerging themes from the knowledge transfer approaches (Alias et al., 2020). According to the statistics, innovation occurs when completely new approaches to job completion are used to develop fresh interpretations of the information that has been imparted (Alias et al., 2020). When new information is necessary to address issues that already exist, this is another important innovation subject.

Knowledge transfer is mostly meant to occur from the parent MNC to the subsidiary, according to the literature (Gupta & Govindarajan, 2000). This study adds to the body of knowledge transfer literature by indicating that many instances of knowledge transfer occurred within the subsidiary itself and that the subsidiary made numerous decisions about the knowledge transfer technique to be used. The previous section highlighted the themes of criteria that describe whether knowledge transfer procedures are picked through replication, adaptation, or innovation, as well as the citations that support them (Alias et al., 2020).

The findings of activities are depicted in 16 episodes, where it can be seen that when the same lean manufacturing or TPS system is applied in the subsidiary, direct copying (replication) or making adjustments (adaptation) is depending on the subsidiary's option. The same is true for TS systems and TPM implementations. Another intriguing element can be gleaned from the findings of episode activities. The more systematic and structured the manufacturing techniques transferred from the parent, for example on the TS project, the more replications are used, whereas the more conceptual, robust, open, and flexible the manufacturing techniques transferred from the parent, for example on the TPS project, the more innovations are used.

The study's findings may also assist to understand why there are situations in replication and adaptation within a knowledge transfer project environment, and even suggests 'innovation' as a new strategy to knowledge transmission on its own. Previous research focused on knowledge transmission via replication and adaptation in general; however, this study went a step further by considering their conditions in the context of an organisational initiative (Alias, 2013; Alias et al., 2020). More meaningfully, using episodes to dive into data and determine how knowledge is conveyed is a key step toward comprehending the wider picture.

Conclusion

This study has added to the existing knowledge transfer literature discussion. This study investigates knowledge transfer inside a subsidiary of an MNC during project execution using an inductive qualitative case study and a theme analysis. This study adds to the body of knowledge on knowledge transfer by directly evaluating the dimensions and aspects of knowledge transmission. The study's findings provide a foundation for understanding the process of knowledge transfer in a project environment, particularly inside an MNC

subsidiary. With this understanding, implications for practise are recognised, as well as recommendations for further study.

The study's findings made four significant advances to our understanding of knowledge transfer and the importance of it in MNC subsidiaries, specifically:

1. The study creates an understanding of how knowledge is transmitted within the setting of a subsidiary by presenting specifics of the methods to knowledge transfer inside the subsidiary, drawing on the rich data of three projects in an MNC's subsidiary's experiences.
2. Researchers and practitioners may better understand the replication and adaptation processes in MNC subsidiary knowledge transfer by combining the findings from this study with knowledge transfer of manufacturing techniques and practises from the literature.
3. By addressing the multifaceted project environment, this study significantly expands on what scholars and practitioners already know about knowledge transfer, especially in terms of replication, adaptation, and an additional emergent technique known as the "innovation" approach.
4. Application the usage of episodes in snapshots are employed in understanding the process and events of knowledge transfer.

To conclude, this study demonstrates that replication and adaptation occur in different ways depending on the circumstances. It also implies that the aspects of replication and adaptation may occur in a certain order, but must develop with time. Surprisingly, a fresh and creative method to 'innovation' was also devised. Therefore, the primary outcomes and main contributions of this study are better understanding on how knowledge is transmitted within subsidiary. Furthermore, episodes are critical to comprehending the entire process. Overall, these findings would benefit both the knowledge transfer component and the knowledge management area in general. All in all, this paper will ultimately provide major inspiration towards appreciating knowledge transfer within MNC subsidiary context and how MNCs could employ it for their future advancements.

References

Alavi, M., and Leidner, D. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly* 25(1), pp 107-136.

Alias, J. (2013). Transferring Knowledge of Manufacturing Techniques within a Subsidiary of a Multinational Corporation. PhD thesis, Aston Business School, Aston University, United Kingdom.

Alias, J., Bennett, D. J., and Hall, M. (2008a). Transferring Knowledge of Manufacturing Techniques in Multinational Corporations: Preliminary Findings, in Jolly D (Ed) Proceedings of 3rd European Conference on Management of Technology, CERAM/IAMOT, Nice, France, ISBN 0-9815817-1-4 (CD).

Alias, J., Bennett, D. J., and Hall, M. (2008b). Transferring Knowledge of Manufacturing Techniques in Multi-National Corporations: A Review of the Literature, in Harorimana D and Watkins D (Eds) *Proceedings of 9th European Conference on Knowledge Management,* Academic Publishing International, Reading, UK, ISBN: 978-1-906638-11-5 (pp 11-18).

Alias, J. (2008c). Knowledge Transfer in Different Knowledge Flows of Projects: Towards a Contingency Approach, in International Technology, Education and Development Conferences, INTED2008 Proceedings; Valencia, Spain, ISBN: 978-84-612-0190-7

Alias, J., Mat, N., Muslim, N., Abdullah, N. A., & Senik, R. (2020). Innovation as a New Mode of Knowledge Transfer within MNC Subsidiary. *International Journal of Academic Research in Business and Social Science,* 10(11), pp1049–1067.

Argote, L., and Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms, *Organisational Behaviour and Human Decision Processes* 82(1), pp150-169.

Bender, S., and Fish, A. (2000). The transfer of knowledge and the retention of expertise: the continuing need for global assignments, *Journal of Knowledge Management* 4(2), pp125-137.

Bennett, D. (1986). Production Systems Design. London: Butterworths Ltd.

Birkinshaw, J. (1996). How multinational subsidiary mandates are gained and lost. *Journal of International Business Studies* 27(3), pp 467-495.

Blackler, F. (1995). Knowledge, knowledge work and organisations: An overview and interpretation. *Organisation Studies* 16(6), pp 1021-1046.

Boyatzis, R. E. (1998). Transforming Qualitative Information: Thematic Analysis and Code Development. London: Sage Publications.

Broner, N., Franczak, M., Dye, C., and McAllister, W. (2001). Knowledge transfer, policymaking and community empowerment: A consensus model approach for providing public mental health and substance abuse services, Psychiatric Quarterly 72(1), pp 79-102.

Chini, T. (2005). Effective Knowledge Transfer in Multinational Corporations. Basingstoke: Palgrave Macmillan.

Crabtree, B., and Miller, W. (1999) A template approach to text analysis: Developing and using codebooks, in Crabtree, B. and Miller, W. (Eds.), Doing Qualitative Research, Newbury Park, CA: Sage, pp 163-177.

Davenport, T. H., and Prusak, L. (1998). Working Knowledge: How Organisations Manage What They Know. Boston: Harvard Business School Press.

Davenport, T. H., De Long, K. M., and Beers, K. C. (1998). Successful knowledge management projects, *Sloan Management Review* 39(2), pp 43-57.

Edwards, J. S., Shaw, D., and Collier, P. M. (2005). Knowledge management systems: Finding a way with technology, *Journal of Knowledge Management* 9(1), pp 113-125.

Eisenhardt, K. M. (1989). Building theories from case study research, *Academy of Management Review* 14(1), pp 532-550.

Eisenhardt, K. M., and Santos, F. M. (2002). Knowledge based view: A new theory of strategy in Pettigrew, A. M., Thomas, A. and Whittington, R. (Eds), Handbook of Strategy and Management, London, Sage, pp 139-164.

Ghoshal, S., and Bartlett, C. A. (1988). Creation, adoption and diffusion of innovations by subsidiaries of multinational corporations, *Journal of International Business Studies* 19(3), pp 365-388.

Gupta, A. K., and Govindarajan, V. (1991). Knowledge flows and the structure of control within multinational corporations, *Academy of Management Review* 16 (4), pp. 768-792.

Gupta, A. K., and Govindarajan, V. (2000). Knowledge flows within multinational corporations, *Strategic Management Journal* 21(4), pp 473-496.

Hall, M. (2006). Knowledge management and the limits of knowledge codification, *Journal of Knowledge Management* 10(3), pp 117-126.

Jashapara, A. (2004) .Knowledge Management: An Integrated Approach. Prentice-Hall

Kenney, M., and Florida, R. (1995). The transfer of japanese management styles in two US transplant industries: autos and electronics, *Journal of Management Studies* 32(6), pp 789-802.

Kogut, B., and Zander, U. (1995). Knowledge, market failure and the multinational enterprise: A reply. *Journal of International Business Studies* 26(2), p417.

Koskinen, K. U. (2003). Evaluation of Tacit Knowledge Utilization in Work Units. *Journal of Knowledge Management*, 7(5), pp 67-81.

Kostova, T. (1999). Transnational transfer of strategic organisational practices: A contextual perspective, *Academy of Management Review* 24 (2), pp 308-324.

Minbaeva, D. B., and Michailova, S. (2004). Knowledge transfer and expatriation in multinational corporations, *Employee Relations* 26(6), pp 663-679.

Nonaka, I., and Takeuchi, H. (1995). The Knowledge-Creating Company. Oxford University Press.

Oliver, N., Delbridge, R., and Lowe, J. (1998). *Japanisation on the Shopfloor, Employee Relations* 20(3), pp 248-260.

Polanyi, M. (1998). Personal Knowledge: Towards a Post-Critical Philosophy. London, Routledge

Schlegelmilch, B. B., and Chini, T. C. (2003). Knowledge transfer between marketing functions in multinational companies: a conceptual model, *International Business Review*, 12(2), pp 215-232..

Strauss, A., and Corbin, J. (1998). Basic of Qualitative Research: Technique and procedures for developing Grounded Theory Thousand Oaks, CA, Sage Publication.

Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness, *Organisational Behaviour and Human Decision Processes* 82(1), pp 9-27.

Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm, *Strategic Management Journal* 17: 27-43.

Szulanski, G., Winter, S. G., Cappetta, R., Vanden, C. (2002). Opening the Black box of Knowledge Transfer: the role of replication accuracy, Wharton.

Williams, J. (2002). Practical issues in knowledge management, *IT Professional* 4(1), pp 35-39.

Yin, R. K. (1984). Case study research: design and methods, Sage Publications.

Yin, R. K. (1994). Case Study Research: Design and Methods (2nd ed). California: Sage Publication.