INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ECONOMICS & MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 13, Issue 3, (2024) E-ISSN: 2226-3624

Replication and Adaptation of Knowledge Transfer within Episodes of An MNC Subsidiary

Jamsari Alias[1], Norazila Mat[2], Nazri Muslim[3], Nor Afian Yusof[3], Wan Zulkifli Wan Hassan[3], Aminudin Basir @ Ahmad[3]

[1]Pusat Pengajian Citra Universiti & Institut Islam Hadhari, Universiti Kebangsaan Malaysia, [2]Faculty of of Economics and Management, Universiti Kebangsaan Malaysia, [3]Pusat Pengajian Citra Universiti, Universiti Kebangsaan Malaysia.

Email: jamsari@ukm.edu.my

To Link this Article: http://dx.doi.org/10.6007/IJAREMS/v13-i3/22014 DOI:10.6007/IJAREMS/v13-i3/22014

Published Online: 23 July 2024

Abstract

With the proliferation of multinational corporations (MNCs), there is an increasing imperative to understand how parent companies oversee their subsidiaries' operations and transfer knowledge to them. Japanese firms have pioneered this area, employing strategies such as the Toyota Production System (TPS) to propagate the Japanese manufacturing ethos and maintain quality and control in their international operations. While much discourse surrounds the transfer of Japanese manufacturing expertise, there remains a paucity of understanding regarding how these methods are acquired and integrated into the subsidiaries' operations. This article explores the parent company's perspective on transferring manufacturing knowledge to its subsidiary. A comprehensive qualitative study was therefore conducted within a Japanese multinational's subsidiary, focusing on three major manufacturing initiatives or philosophies: "TPS," "TPM," and "TS." Data was collected through 52 in-depth interviews with project participants, along with documentation and moderate-participant observations. By examining the subsidiary's procedures, the development of the entire process, and, notably, the use of episodes in snapshots to elucidate the knowledge transfer process, this study enhances our understanding of knowledge transfer. Furthermore, this article elucidates how replication and adaptation are cultivated and become central elements in episodic knowledge transfer.

Keywords: Knowledge Transfer, MNC Subsidiary, Replication and Adaptation, Episodes Context, Malaysia.

Introduction

Over the past 40 years, multinational corporations (MNCs) have grown significantly, prompting scholars to examine how MNCs handle their knowledge, particularly focusing on the economic stimulation components involved (Gupta and Govindarajan, 2000). The rapid growth of MNCs necessitates understanding how parent businesses oversee subsidiary activities and impart knowledge, especially for industrial companies expanding internationally (Alias et al., 2008a). Japanese companies, for example, have developed techniques like Kaizen

and TPS components like Kanban, crucial for transferring Japanese manufacturing philosophy to foreign subsidiaries (Alias et al., 2008b).

Knowledge transfer, defined as the process through which one unit is affected by another's experience Argote and Ingram (2000), is critical for MNCs. Effective management in these dispersed businesses relies on transferring knowledge across individuals, groups, departments, or geographic divisions (Alias, 2013). MNCs oversee operations across multiple nations from their headquarters, with the parent corporation making significant investments overseas and subsidiaries contributing financially (Birkinshaw, 1996).

Japanese MNCs provide a valuable context for studying knowledge transfer. Scholars have shown growing interest in the role of knowledge management in MNCs, where diverse projects involving different kinds of knowledge are undertaken (Ghoshal and Bartlett, 1988; Kogut and Zander, 1995; Szulanski, 1996; Gupta and Govindarajan, 2000; Eisenhardt and Santos, 2002). This research focuses on how knowledge of manufacturing processes is transferred from parent companies to subsidiaries, particularly in Malaysia (Alias et al., 2008a).

This study adopts the subsidiary's perspective, examining how manufacturing knowledge is transferred from parent companies to subsidiaries through projects within the subsidiary. Projects, involving employees from various organizational levels, facilitate knowledge transfer (Blackler, 1995; Koskinen, 2003; Nonaka and Takeuchi, 1995; Alavi and Leidner, 2001; Bender and Fish, 2000). Investigating knowledge transfer in a microenvironment helps understand the processes within an MNC subsidiary (Alias, 2013).

Two primary strategies, replication and adaptation, are used to fit local contexts in knowledge transfer between MNCs and subsidiaries (Szulanski et al., 2002; Williams, 2002; Chini, 2005). Understanding how local managers apply knowledge in their practices is crucial for practical insights (Alias et al., 2008a). Given the growing interest in knowledge management in MNCs, the Japanese MNC context is suitable for studying knowledge flow.

Effective communication across hierarchies is necessary for utilizing organizational knowledge (Kostova, 1999). Open communication networks enhance knowledge transmission within organizations (Alias et al., 2008a; Alias, 2008c). The study explores the significance of episodes, or key moments, in understanding the knowledge transfer process, ensuring its validity and authenticity (Alias et al., 2020).

This study aims to understand the procedures by which MNCs impart manufacturing expertise to subsidiaries, investigate how subsidiaries replicate and adapt knowledge, and comprehend the process of replication in knowledge transfer episodes.

Consequently, the following are this paper's principal goals:

- to understand the procedures by which multinational corporations (MNCs) impart manufacturing expertise to their subsidiaries.
- to investigate how the MNC subsidiaries replicate and adapt knowledge from parents' companies within the episode's context.

Research Setting of An MNC Subsidiary

The Gambatte Corporation, referred to anonymously as Gambatte, is a leading provider of innovative automotive systems, parts, and technology to major manufacturers worldwide (Alias et al., 2008b; Alias et al., 2020). With operations in 32 countries, Gambatte employs over 112,000 people. For the fiscal year ending March 31, 2007, the corporation's global consolidated revenues reached US $30.6 billion, achieved through sales, product development, design, and production efforts (Alias, 2013).

Gambatte associates embody the company spirit of creativity, cooperation, pioneering, and trustworthiness, upholding management principles focused on customer satisfaction, global growth, environmental preservation, corporate vitality, and respect for individuality (Alias et al., 2008b; Alias et al., 2020; Alias and Mat, 2022).

Gambatte (Malaysia), established in 1980, is the country's largest manufacturer of automotive components and a significant supplier to local and Japanese car projects. It is a wholly owned subsidiary of Gambatte Corp. (Alias et al., 2008b; Alias et al., 2020). Gambatte (M) selects and implements projects aligned with key business strategies, focusing on efficiency, quality, product design improvement, waste reduction, and manufacturing operation enhancement (Alias et al., 2008b; Alias et al., 2020).

Gambatte (M) has received ISO/TS 16949 accreditation and ISO 14001 Environmental Management System accreditation, demonstrating its commitment to quality and environmental preservation (Alias et al., 2008; Alias et al., 2020). This study focuses on three major projects to understand their communication and knowledge transfer processes.

Founded in 1973 at Gambatte Japan (GJP), Gambatte TPS is based on the Toyota Production System (TPS), developed through Kaizen Activity by Toyota Motor Corporation. It is a globally recognized manufacturing standard, particularly in the automotive industry and lean production initiatives (Alias et al., 2008b; Alias et al., 2020). Kaizen projects have been conducted since 1996, with individual efforts in various departments. In 2002, the TPS team was established, evolving into the TPS Department in 2005, under direct supervision of the MD (Alias et al., 2008b; Alias et al., 2020).

The Gambatte TPM Project, with a 40-year history at GJP, focuses on improving machine maintenance overall, examining who maintains the machines, what systems do so, and enhancing machine knowledge through education and training (Alias et al., 2008b; Alias et al., 2020). TPM in Gambatte involves executing and coordinating maintenance activities as a system, emphasizing a specialized area of maintenance management (Alias, 2013).

TS16949 is a new international standard for the automotive industry, replacing ISO9000 and 9001 since 1994. The TS team, comprising middle management from every GMY department, hired an outside consultant to instruct the team on the system's expectations and implementation (Alias et al., 2008b; Alias et al., 2020).

Research Methodology

Despite the extensive study of knowledge transfer in multinational corporations (MNCs) within the literature, there remains a significant gap in understanding how subsidiaries integrate manufacturing process expertise from their parent companies.

Therefore, this study aims to explore the methods employed by parent companies to teach their subsidiaries about industrial operations. Additionally, it seeks to understand how subsidiaries replicate and adapt information from their parent companies, as well as the contexts in which these processes occur.

The methodological approach involves a qualitative case study comprising three instances from three distinct projects within a subsidiary of a multinational corporation (GMY), focusing on three major manufacturing philosophies. This case study is an empirical investigation of a contemporary phenomenon within its real-life context, where the boundary between the phenomenon and the context is not always clear (Eisenhardt, 1989; Strauss and Corbin, 1998).

As noted by Yin (1984, p. 23), this method is recommended when "the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context, and its generalizability is determined by the strength of the description of the context."

The case study approach is particularly useful for studying large and complex phenomena that require a comprehensive analysis and cannot be examined outside their natural environment (Yin, 1994). Typically, a case study incorporates a variety of qualitative data collection techniques such as observations, documentation, and interviews, in addition to quantitative data like surveys and time-series data (Crabtree and Miller, 1999).

Employing an inductive methodology and qualitative techniques, the study collected data from three GMY examples: TS, TPM, and TPS. The data were gathered through 52 one-on-one interviews with project participants, moderate-participant observations, and supporting documentation.

Findings and Discussions

The data collection process encompassed 52 interviews lasting 60-90 minutes, nine meetings (both formal and ad hoc), one open seminar, two staff training sessions, three plant tours, five lunches and informal gatherings, and project documentation. This extensive data collection required numerous emails and phone conversations. The transcripts of the interviews and meeting materials totalled approximately 900 pages. Additionally, pictures, papers, and photographs were collected during the data collection process. Crucially, the data were gathered across a series of episodes.

An episode is a compilation of key moments and events from the knowledge transfer process recorded in real-time, depending on the information being transferred and its mode of transfer. These episodes range from fifteen minutes to an hour. Their significance lies in their ability to illustrate the uniqueness of each process and explain how the subsidiary acquires and incorporates manufacturing methods into its daily operations.

The content was subjected to thematic analysis following (Boyatzis, 1998). All interviews were recorded, and the transcripts were analysed using Boyatzis' (1998) inductive coding (themes derived from interviews) and deductive coding (based on previous research), in line with Crabtree and Miller's (1999) template organizing technique. The textual data from interview transcriptions were examined using broad themes and patterns identified (Alias, 2013; Alias et al., 2020).

Data collection and analysis are integral to qualitative research. Following the coding process, codes with similar characteristics were combined into categories, and coded data sections were organized according to the data collection methods used (Hall, 2006). Some codes were

assigned to multiple categories. The classified data were printed and physically arranged into folders labelled with the categories. Each research topic was then surrounded by the categories provided by the various data collection methods (Alias et al., 2008c; Alias et al., 2020).

The connected patterns were fused to form sub-themes, and the resulting themes and sub-themes were gathered. The analysis was further validated by reviewing the literature and occasionally obtaining feedback from respondents, significantly enriching the substance of the analysis. The constant-comparative technique used for qualitative data analysis reached saturation points, and new findings validated these points. This technique was crucial for addressing the research questions (Alias et al., 2008c; Alias et al., 2020).

The associated patterns were then combined to generate sub-themes, and the resulting themes and sub-themes were grouped together. Further validation was acquired by examining the literature and, on occasion, asking respondents for feedback, resulting in a more precise theme analysis. The qualitative data were further analysed using the constant-comparative technique, with saturation points confirming the new findings. This procedure was essential for answering the research questions (Alias et al., 2020; Alias and Mat, 2022).

The episodic approach is particularly valuable in this study because it provides a detailed understanding of the information transfer process, with respondents describing what actually occurs during the process. The episodes are presented in recognition of the established value of using narratives in organizational research. This practice has gained recognition in the fields of education, psychology, medicine, and leadership, and helps translate real-life situations into words and images (Polanyi, 1998; Broner et al., 2001; Jashapara, 2004; Davenport, 1998).

By providing a comprehensive picture of how manufacturing practices knowledge is transferred and emphasizing the specific context, the episodic analysis addresses the research objective of identifying the "circumstances" in knowledge transfer, allowing for the distinction between replication and adaptation. The categories are inductively created based on data episodes acquired at the Gambatte site through the researcher's evaluation of the three projects (Alias and Mat, 2022).

The episode structure is critical to this study as it represents the locations, situations, and events where most knowledge is created, shared, and communicated in real life. This structure makes the information transfer process easy to analyse and understand, lending authenticity and distinction to the study of how knowledge transfer occurs in a real-world setting.

An episode is a recollection of events from the knowledge transfer process, captured as they happened, and typically lasts between fifteen and eighty minutes. These incidents illustrate the uniqueness of each process and show how the subsidiary gathers information and incorporates manufacturing techniques into its regular operations, making them essential for understanding the knowledge transfer process (Alias and Mat, 2022; Alias and Mat, 2023).

Each episode includes a setting, discussions, and a summary. The pivotal sequence of the episode is described in detail. The entire series concludes with a summary after a more in-

depth analysis of the data to address the research question. The episodes, carefully chosen from Plant 101, Plant 102, and Plant 103, cover every plant and manufacturing philosophy involved. Thus, presenting the episodes using "the plant times across the lines" (i.e., the production plant times (X) lines) of the manufacturing facilities across the three Japanese Manufacturing Initiatives philosophies (TPS, TPM, and TS) provides a comprehensive and evenly distributed illustration of the entire case.

The presentation and descriptions of the episodes are written from the viewpoints of the subjects involved. Observations are combined with additional interviews to supplement and enhance information obtained from interviews, increasing the validity and reliability of the data.

The layout, or how the plants and lines are arranged, is displayed in Table 4.1:
Table 4.1
Plant and Line Arrangements Across Episodes

Gambatte (M)		**Manufacturing Systems / Philosophies**		
Shopfloor	Production Lines	TPS	TPM	TS
Plant 101	Condenser	**Eps 2**		
	Evaporator		**Eps 8**	
	Piping	**Eps 3**		
	Compressor	**Eps 9**		**Eps 14**
	Learning Area	**Eps 10**		
	Office of Restoration		**Eps 16**	
Plant 102	Ventilator & Heater	**Eps 11**	**Eps 5**	
	Cooling Unit & Blower			**Eps 4**
	Radiator			**Eps 1**
	Learning Area	**Eps 12**		
	Office of Restoration		**Eps 15**	
Plant 103	ECU (Engine Control Unit)			**Eps 6**
	CDI Amplifier		**Eps 7**	
	AC Amplifier & Controller			**Eps 13**
Total number of episodes per philosophy		**Six**	**Five**	**Five**

The episodes are represented here, with the numbers indicating where they are positioned within the production lines according to Table 4.1. A total of 16 selected episodes cover all of the plants and manufacturing philosophies involved, which include:

Episode No 1: Gemba & Irregularities Treatment
Episode No 2: TPS Activity Panel
Episode No 3: Champ
Episode No 4: Super-Operator & Picturization
Episode No 5: Trainings – both theoretical & practical
Episode No 6: Charts with Various Pen Colors
Episode No 7: Daily Maintenance & Five Ss

Episode No 8: TPM Corner & "Why Why Analysis"
Episode No 9: System of Kanban Cards
Episode No 10: Simulation of a Production Line
Episode No 11: Gambatte Ownership Culture & TPS Design in Action
Episode No 12: Asean Jeshuken
Episode No 13: Complaints from Customer
Episode No 14: Production Line Process Control
Episode No 15: Machine Spare Parts Control
Episode No 16: Pre-emptive Maintenance

An episode is a detailed account of knowledge transfer events, recorded in real-time based on the information imparted and the method employed. These episodes can resemble five to fifteen-minute trailers for movies or documentaries, with each episode lasting between fifteen and sixty minutes. These examples are crucial for understanding the knowledge transfer process, illustrating how the subsidiary collects data and applies manufacturing methods in day-to-day operations (Alias, 2013). Each episode also showcases additional properties of information transfer, such as the medium, mechanism, and participant roles (Alias, 2013; Alias and Mat, 2022).

The main focus of each episode is the "Scene," which describes a "component of a process or an activity." It is akin to a five to fifteen-minute movie trailer that communicates information orally rather than visually. The "real situations" in each scene are "telecast" to reveal the overall plot of the episode (Alias, 2013). Each scene's sub-contents are paired with real actors, viewpoints, and settings to ensure the plot flows seamlessly and the knowledge transfer scenario is logically understood (Alias and Mat, 2022; Alias and Mat, 2023).

The literature on knowledge transfer typically highlights two fundamental strategies: replication and adaptation. Replication refers to the process of reproducing information using an exact copy of the original source. Conversely, adaptation involves making specific modifications to the information (Szulanski, 1996; von Hippel, 1994).

In this study, replication occurs when there is a need for repetition and the information transmitted accurately reflects the original understanding. Replication is used when the parent company requires additional documentation and standards. In contrast, adaptation necessitates explanations and modifications to meet the demand for comprehension (Alias et al., 2020). Williams (2002) suggested that replication requires a more discrete approach, whereas adaptation requires a deeper understanding. This study contributes to the literature by detailing the characteristics, standards, and classifications of these approaches and demonstrating how they function in real-world situations.

Among examples of how replications and adaptations were found in the episodes are as below:

Table 4.2

Samples of developing the theme of replication from the episode

Interview	**Code**	**Sub-Categories**	**Categories**	**Theme**
"…copying at work from what the super-operator and line leader do, and following exactly the tasks in the production line make me understand more about the new manufacturing practices…" [*Sodiqin* - TPS]	Copy at work Follow exactly	Copy	Mirroring	**Replication**
"…when any new knowledge come to our production line, one of the easy way to implement it is through following what the line leader do and doing it simultaneously with her. This would even give maximum impact, we just copy what and how our line leader does. This leads to improvement in the productivity and maintenance functions…." [*Abin* - TPM]	Do it together	Together		
"…to make the new operators understand the new knowledge of this new system is easy, we just ask them to follow and do what we do…." [*Aileen* - TS]	Follow what we do	Follow		

Table 4.3
Samples of developing the theme of adaptation from the episode

Interview	Code	Sub-Categories	Categories	Theme
"…when we want to implement new knowledge of manufacturing techniques which is transferred into here, not all of them could be directly apply as it is, we need to make our operators understand what they are and this requires some minor change…" [Fadhil]	Make people understand Minor changes	Keep the same understand	Need of Understanding	**Adaptation**
"…. For different levels of audience, we provide different type of materials so that they could acquire and absorb the knowledge smoother. The materials that we got from the Japanese parent were adapted to suit with the audience's level of understanding…."[Zack]	Suit understanding	Same level understanding		

The 16 episodes illustrate the results of the activities, showing that direct replication (replication) or adaptation (adjustment) depends on the subsidiary's preference when using the same TPS system or lean manufacturing. TPM implementations and TS systems are comparable. The identification of episode-related actions offers yet another fascinating element. Replications are employed more when manufacturing techniques transferred from the parent, as in the TS project, are more structured and methodical' Likewise, the more conceptual, robust, open, and flexible the manufacturing techniques transferred from the parent, as in the TPS project, the more adaptations are used (Alias and Mat, 2022; Alias and Mat, 2023). More significantly, exploring facts through episodes and learning how knowledge is presented is a critical first step in comprehending the larger picture. This follows the following detailed characteristics of replication and adaptation:

Table 4.4
Characteristics of Replication and Adaptation in Episodes

Replication		**Adaptation**	
Characteristics	Repetition	Characteristics	Need of Understanding
	Mirroring		Explanation Required
	Procedures		Additional Jobs & Tasks
	Documented		Need for Adjustment
	Standardized		
Explicit	Routines	Tacit	Coherent Experience
	Procedurals		Unambiguous Understanding
	Codified		Expertise Inheritance
	Manuals		Teamwork - Cohesiveness
	Visualized		
	Signs		

Conclusion

This study contributes significantly to the existing literature on knowledge transfer by employing an inductive qualitative case study and thematic analysis to investigate the dynamics of knowledge transfer within a multinational corporation (MNC) subsidiary during project execution. Through a direct examination of the dimensions and components of knowledge transmission, this study enriches the body of knowledge on this topic.

The findings of this study provide a comprehensive framework for understanding the process of knowledge transfer in a project setting, particularly within an MNC subsidiary. This enhanced understanding has clear practical implications and offers valuable recommendations for future research. The study highlights the utility of episodic snapshots in capturing and comprehending the intricacies and occurrences of knowledge transfer.

Moreover, the study elucidates that replication and adaptation manifest in various forms contingent upon the specific circumstances. It suggests that while replication and adaptation may follow a predetermined sequence, this sequence can evolve over time. The use of episodes is pivotal in grasping the entirety of the knowledge transfer process.

Therefore, this study contributes towards the novelty body of knowledge in particular related to the topic of knowledge transfer and how the usage of episodes is applicable within the context of qualitative research. This study also provides a fresh understanding related to an MNC subsidiary as the contextual setting.

Overall, these findings are advantageous for both the knowledge transfer component and the broader field of knowledge management. This study provides substantial insights into understanding knowledge transfer within the context of MNC subsidiaries and offers strategies that MNCs might leverage to enhance their future operations.

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., and 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.

Alias, J., and Mat, N. (2022). Understanding Knowledge Transfer Within Mnc Subsidiary Through Episodes. *International Journal of Academic Research in Business and Social Sciences*, *12*(10), pp1500-1514.

Alias, J., and Mat, N. (2023). Positioning Knowledge Transfer within MNC Subsidiary through Episodes Development. *International Journal of Academic Research in Business and Social Sciences*, *13*(10), pp517-528.

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., and 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.