An Empirical Study of the Role of Knowledge Characteristics and Tools on Knowledge Transfer in China-Based Multinationals

Sajjad Jasimuddin, Kedge Business School, Marseille, France
Jun Li, Lvshunkou Economic Development Zone, Dalian, China
Nick Perdikis, Aberystwyth University, Caradigion, UK

ABSTRACT

This article describes how technology—i.e. the infrastructure of tools, systems, platforms—enhances knowledge transfer. The effect of tools on the relationship between knowledge characteristics and knowledge transfer effectiveness is under-researched. This article attempts to address the interplay of knowledge characteristics and transfer tools within multinational corporations (MNCs). Based on the structural equation modelling, this research proposes and tests a basic model that captures knowledge characteristics and transfer tools at 125 Japanese subsidiaries operating in China. Drawing on the literature, this article argues that the role of knowledge characteristics and transfer tools need to be considered for effective knowledge transfer between MNCs and their subsidiaries. Knowledge characteristics and transfer tools play differing roles in knowledge transfer. This article also extends the existing studies by focusing on knowledge characteristics and transfer tool constructs simultaneously in a model to understand the notion of knowledge transfer effectiveness in the global business context.

KEYWORDS
China, Japan, Knowledge Transfer Tools, Knowledge Transfer, Structural Equation Modelling

INTRODUCTION

Knowledge is recognised as a vital organisational resource that is at the heart of corporate success, be it a domestic or multinational (Kogut & Zander, 1992; Nonaka & Taekuchi, 1995). The successful transfer of knowledge within or among organizations is a strategic imperative (Li, 2008). Knowledge transfer in global environment, particularly in multinational corporations (MNCs) is a popular area of research (Lu, Leung, & Koch, 2006). Knowledge can be transferred across the companies involved in foreign investment; particularly it flows from MNC to its subsidiaries and affiliates (Schulz & Jobe, 2001). Since local Chinese firms often lack technical and managerial knowledge necessary for global competitiveness, they attempt to get access to this valuable resource, particularly from Western MNCs (Steensma & Lyles, 2000). Knowledge transfer is critical in developing and enhancing the competitive advantage of firms. Reflecting this view, Argote and Ingram (2000) contend that knowledge transfer is a basis for competitive advantage in firms. Since knowledge resides in different individuals, departments or divisions, in a competitive environment, successful transfer of knowledge within or among organizations help to integrate a firm’s knowledge pools. Knowledge that is transferred is the critical component of the value that a firm creates. Accordingly, knowledge transfer provides new opportunity for better performance of firms in competitive environment. This helps us to establishing how knowledge transfer contributes to the competitiveness of the firm.

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Knowledge transfer is a dyadic exchange in which a source (MNC) transfers knowledge and a recipient (subsidiaries) learns and applies it (Ko et al., 2005; Slaughter & Kirsch, 2006; Zhang & Jasimuddin, 2012). Drawing on the work of Grant (1993) and Hansen et al. (1999), the paper addresses knowledge transfer from the Japanese MNCs to their subsidiaries in China. There has been research on tacitness feature of knowledge (Polanyi, 1962; Dhaanaraj et al., 2004; Li, 2008; Cummings & Teng, 2003; Ambronisi & Bowman, 2001). According to the knowledge-based view of the firm, the degree of tacitness of knowledge has an influence on knowledge transfer. Several authors (e.g. Zander & Kogut, 1995; Li, 2008; Cummings & Teng, 2003; Dixon, 2000) argue the nature of knowledge affects the knowledge transfer by MNCs. Dixon (2000) suggests that one of the important factors that influence in intra-firm knowledge transfer is the nature of knowledge, especially where the knowledge has embeddedness and tacitness. This view is echoed by Cummings and Teng (2003) who contend that the knowledge context includes the transferred knowledge’s embeddedness and articulability. Several authors have incorporated knowledge characteristics, especially tacitness or codifiability of knowledge as control variables (e.g., Bjorkman et al., 2004; Hansen, 2002; Monteiro et al., 2008; Persson, 2006).

Similarly, the existing literature on knowledge transfer investigates various issues surrounding knowledge transfer tools (Gupta & Govindaranjan, 2000; Storey & Barnett, 2001; Earl, 2000; Hansen et al., 1999; Zhang & Jasimuddin, 2012). According to the theory of knowledge transfer strategy two broader alternative knowledge approaches are available to use for knowledge transfer: personalisation and codification strategies. Personalisation strategy is employed where the knowledge is closely tied to a person who created it and is shared mainly through direct face-to-face contacts. On the other hand, codification strategy is effective where knowledge is carefully articulated and stored in databases, and can be accessed and used easily by anyone within the company. Parallel to this, Gorovaia and Windsperger (2013) argue that personalisation and codification approaches are not mutually exclusive strategies but firms tend to favour one over the other.

Despite the recent proliferation of various papers surrounding knowledge transfer by MNCs, no previous work has investigated the role of knowledge characteristics in knowledge transfer in China using mediating effect of transfer tools. Recently, China adopted an aggressive investment policy to facilitate industrial development and knowledge transfer. Since China lacks product and process technology and managerial, technical, and marketing skills, it has made an effort to acquire knowledge and technology from MNCs. There has been limited research on the way in which China acquires or receives knowledge from Western MNCs, particularly how a China-based subsidiary acquires knowledge from a Japanese parent. The paper intends to address fills an important gap by addressing a question: How knowledge characteristics influence the selection of an appropriate knowledge transfer tool, which in turn facilitates knowledge transfer in the Chinese context.

To the best of our knowledge, our study is one of the first to conceptualize and empirically investigate knowledge transfer effectiveness. We begin by elaborating the basic dimensions of knowledge characteristics and transfer tools for knowledge transfer that is available in the extant literature. We then develop a model, proposing hypotheses to link knowledge characteristics, transfer tools, and knowledge transfer. A LISREL model is used to study these latent variables based on data sampled from 125 Japanese firms operating in China. Finally, managerial implications are discussed and a brief conclusion is presented.

LITERATURE REVIEW

Researchers in global business and information management have shown interest in various issues surrounding knowledge transfer. This section reviews the literature that is relevant in developing a research model which posits that the knowledge characteristics and the transfer tools employed facilitate or inhibit knowledge transfer from a MNC to a subsidiary. The framework draws on the knowledge characteristics, knowledge transfer tools, and knowledge transfer.
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