

Information Systems Resource Contribution in Strategic Alliance by Small Healthcare Centers

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INTRODUCTION

Alliance is defined as the “collaborative efforts between two or more firms in which the firms pool their resources in an effort to achieve mutually compatible goals that they could not achieve easily alone” (Lambe, Spekman & Hunt, 2002, p. 141). Cooperative alliances allow firms to explore new information technology, enhance a firm’s knowledge foundation, lower development costs, and reduce the capital requirements and risks involved in development of new products and services (Das & Teng, 2000; Scotten, Shirin & Absher, 2006). This approach is often adopted by small and medium-sized enterprises (SMEs) as a competitive strategy to obtain necessary information systems resources in the rapidly changing and high-pressure healthcare industry (Nelson, Galvin, Essien & Levine, 1999; Scotten et al., 2006). However, according to Das and Teng (2000), around 60% of alliances between partners resulted in failure. Hence, the choice of partners and resource fit of alliance partners are of great importance for SMEs (Grant, Preece & Baetz, 1999). For those SMEs without much information systems (IS) resources, the formation process of alliance can be viewed partly as a process to increase both their tangible and intangible IS resources. Value generated from alliances is enhanced when partners have different IS resource profiles and contribute these IS resources to the alliance. These partner characteristics are important since they help in the evaluation of optimum allocations of IS resources for potential alliances to achieve suitable alliance resource alignments.

Thus, the objective of this chapter is to examine how different types of IS resource alignments affect the performance of alliances via the contribution of dissimilar and similar IS resources. The focus of this study is small healthcare centers in Taiwan. These small healthcare centers have formed alliances to confront the

fierce competition as well as to absorb the regulatory pressure from the government. Most of these small healthcare centers in recent years have realized that they can only compete with major healthcare service providers through cooperative alliances, as most of the patients prefer to go to big service providers for long-term treatments. The literature on interorganizational collaborations has been criticized for its relatively narrow concentration on large firms and for ignoring SMEs’ alliances where large firms do not operate in similar ways (Prater & Ghosh, 2005). These cost pressures, together with the general dynamic nature of the healthcare industry, require a significant change in approaches to utilize IS resources by these small healthcare centers. Therefore, these small healthcare centers must form alliances to obtain scarce IS resources. Unlike large firms that own a lot of IS resources to be able to form alliances with many partners, these small healthcare centers tend to form alliances with only a small number of partners, and therefore, their dependence on these partners is higher than large firms (Mambula, 2002). In this regard, these small Taiwanese healthcare centers offer an appropriate context for research.

BACKGROUND

Similar Resource Contribution

SMEs are particularly in need of finding suitable partners with dissimilar or similar resources due to their insufficient slack resources (Huang, Lin & Lin, 2005; Lin, Lin & Tsao, 2005; Srinivasan, Rangaswamy & Lilien, 2005). Formation of alliances is one way for firms that have possessed similar resources to decrease interfirm rivalry. Chen (1996) has defined resource similarity as “the degree to which two partner firms contribute resources compatible, in terms of both type and amount,

to an alliance” (p. 107). The understanding of resource similarity is very important because the firms that have possessed similar resources can potentially be the fierce rivals (Chen, 1996). Moreover, resource similarity can also assist in interorganizational learning among alliance partners. For example, according to Pitts and Lei (1997), alliances formed to learn and absorb tacit knowledge are more difficult to manage among partners that come from different cultural backgrounds than partners from a similar cultural background. In addition, Inkpen (2000) has proposed that the relatedness between interpartners’ knowledge base supported the acquisition of alliance knowledge. Therefore, we argue that IS resource similarity represents smaller knowledge distance and higher cultural similarity between alliance partners. These similarities are likely to assist alliance partners in developing a thorough understanding of their own knowledge and culture, and these can also enhance mutual learning and coordination and ultimately lead to increased alliance performance.

Dissimilar Resource Contribution

On the other hand, the uniquely dissimilar resource contribution is particularly critical to SMEs in their partner selection processes. SMEs are particularly in need of finding suitable partners with dissimilar resources, since it is difficult to produce alliance synergy without dissimilar resource contribution (Harrison, Hitt, Hoskisson & Ireland, 2001). Although potential competitors can easily imitate the research-based synergy from an alliance where the interpartners have strong research orientations, it will be much more difficult for them to acquire the synergy derived from dissimilar resource contribution (Harrison et al., 2001). Therefore, they are less likely to be interested in forming an alliance with firms who are only able to contribute similar IS resources. It is proposed that there is a negative correlation between interpartners on the contribution of similar IS resources. This implies that one party does not require the contribution by the other party on the IS resources they already own. On the other hand, there is a positive correlation between interpartners on the contribution of dissimilar IS resources. Interpartners that possess dissimilar IS resources are able to complement each other within an alliance. Therefore, the following hypotheses are proposed:

- **H1:** There is a negative correlation between the focal firm and the partner firm on the contribution of the similar IS resources.
- **H2:** There is a positive correlation between the focal firm and the partner firm on the contribution of the dissimilar IS resources.
- **H3:** Higher dissimilar IS resource contribution leads to higher alliance sustainable commitment.
- **H4:** Higher dissimilar IS resource contribution leads to higher alliance performance.

RESEARCH METHODOLOGY

Data Collection

In order to test the proposed hypotheses, five in-depth semistructured interviews lasting one hour each and a pilot survey of 10 industry executives were conducted to get insights into industry dynamics and to develop and refine the survey scales. Then, the main survey targeted small healthcare centers, which were classified to have formed alliances with others. This questionnaire asked the owners/directors or persons who were capable of representing their views to complete and return the questionnaire. The respondents were asked to answer the questions in relation to the cooperative relationship with their most important alliance partner.

A total of 69 questionnaires were received from the small healthcare centers that have formed alliances with others in Taiwan. The sample size is comparable to many other similar studies conducted in the last few years. For example, Sarkar, Echambadi, Cavusgil, and Aulakh (2001) collected 68 responses from 561 large international contractors sent (a net response rate of 12.1%) in their study of alliance on the role of dissimilar resource contribution, compatibility, and relationship capital on alliance performance. Nonresponse bias was tested by comparing the early and late responders on all constructs, and no significant difference between the two groups was found.

Measurement

This study has defined the interorganizational IS resource cooperation among the healthcare centers as the unique and valuable IS resources contribution by both the focal and partner firms. According

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