Understanding Outsourcing Commitment—An Integrated Model Combining The Resource-Based View And Knowledge Management

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The understanding on how a service provider’s (SP) process capabilities, in terms of aligning and adapting resources to deliver value to its service recipient (SR) in business process outsourcing (BPO), affect its commitment is limited. To address this, building on a strategic perspective and related theories such as the resource-based view and knowledge management, we develop a theoretical model and test it empirically. Specifically, we posit that a SP’s process capabilities, in terms of process alignment, offering flexibility, and partnering flexibility, positively affect its SR’s commitment and the above relationships is negatively moderated by the SR’s behavior control. Besides, we also examine the influence of interaction effect between antecedents of process capabilities on commitment, such as how does process alignment interact with its partnering flexibility and offering flexibility to affect commitment. Finally, we assess whether process capabilities are influenced by the SR’s absorptive capacity and the SP’s task-knowledge coordination. We test our model using survey data collected from 183 firms, supporting most proposed hypotheses. We discuss the theoretical and practical implications of how to increase the value offered to a SR by levering resources, in terms of process capabilities and knowledge management.

Key words: BPO, commitment, process alignment, flexibility, knowledge management
1 INTRODUCTION

Business process outsourcing (BPO) is defined as the delegation of one or more information technology (IT) enabled business processes to an external service provider (SP), who is responsible for managing the processes to achieve the service recipient’s (SR) defined and measurable set of performance goals (Bharadwaj et al. 2010, Mani et al. 2010). The main reason BPO attracts firms is it requires lower cost and risk compared to in-house process development, and enables the SR to use the SP’s best practices to achieve strategic objectives (Kern and Willcocks 2000, Kishore et al. 2003). But not all outsourcing relationships work well, causing research to consider the factors salient to BPO success. Some studies emphasized the importance of trust and managing partnership (Goo et al. 2007, Bharadwaj et al. 2010), others stressed commitment, referring to the SR’s desire to continue a relationship with its SP, willingness to be involved in the relationship by investing capital, and confidence in the stability of the relationship (Benlian and Hess 2011, Goo and Huang 2008, Goo et al. 2009, Ramachandran and Gopal 2010, Rottman, and Lacity 2004, Susarla et al. 2010, Whitaker et al. 2011). Unlike project-based outsourcing, which can be developed and implemented without affecting day-to-day operations of the client firm, BPO has to be processed from day one and failure of commitment reduces the quality of outsourcing. Without the minimum extent of SR’s commitment, BPO is deemed failure, thus understanding the factors affecting it becomes critical.

Extant studies have examined the governance skills to ensure commitment from wide perspectives, including formal contracts, relational governance (Goo and Huang 2008, Goo et al. 2009, Popper and Zenger 2002), behavior control (Tiwana 2010), SP’s process and IT management competence (Bharadwaj et al. 2010), client’s technical knowledge, relationship management knowledge (Rustagi et al. 2004) and absorptive capacity (Goo et al. 2007), among others. Relatively few empirical studies considered commitment from a strategic perspective by viewing BPO as a value delivery process requiring a combination of resources—either from the SP or its SR. To address this, the present study is grounded in the resource-based view of a firm (RBV) to propose a theoretical model identifying the resources and their impact on commitment. This is valuable not only for outsourcing client (or SR) responsible for choosing the most capable SP to improve the performance of outsourcing, but also for SP to understand how to improve the relationship with its client.

We identify three variables salient to the process of interorganizational relationship (IOR) from prior work on strategic management, termed as process capabilities—process alignment, offering flexibility, and partnering flexibility (Dyer and Singh 1998, Gulati et al. 2000, Kern
Process capabilities refer to a firm’s ability to align and adapt resources and activities to either provide better services to its service recipient or manage (add or terminate) its partnerships so as to increase its capabilities of offering the needed service to its outsourcing clients. Besides, based on theories related to knowledge management (KM)(Goo et al. 2007, Park et al. 2007, Tiwana and Mclean 2005, Zahra and George 2002), our model incorporates a SR’s absorptive capacity (AC) and a SP’s task-knowledge coordination (TKC) capabilities as variables salient to the SP’s process capabilities because learning and knowledge acquisition and application serve as the underlying firm-specific capabilities, in terms of better understanding how to use IT and to handle the outsourced task, from which process capabilities can be increased, leading to better quality of IOR and commitment.

While we have learned the antecedents of process capabilities help a SP provide high quality service to its client by either aligning interdependent processes or handling the outsourcing processes in a flexible way or using other partners’ resources, there is a gap in our understanding about how process alignment interacts with partnering flexibility or with offering flexibility. Neglecting the influence of interactions between the variables of process capabilities increases the risk of inability to fully deploy the initiatives derived from alternative ways of using capabilities. Besides, viewing complementary capabilities as substitutes loses the opportunity for synergies; rather detailing the interaction effect between antecedents of process capabilities helps a SR better use the capabilities to create value and to increase commitment (Rai and Tan 2010, Sinha and Van de Ven 2005). Further, this study also assesses the moderating effect of a client’s behavior control on the direct relationships between antecedents of process capabilities and commitment. This is because prior work has recognized the influence of a client’s behavior control on its SP’s capability of handling outsourced tasks and on the relative impact of this capability, but we know little about the moderating effect of behavior control on the relationships between process capabilities and commitment (Kern and Willcocks 2000, Lacity and Hirschheim 1993, Tiwana 2010).

In sum, this study has four research questions.
RQ1: How do a SP’s process capabilities affect its SR’s commitment?
RQ2: How does a SP’s process alignment interact with its partnering and offering flexibility to affect its SR’s commitment? and how does a SP’s partnering flexibility interact with its offering flexibility to influence commitment?
RQ3: How does a SR’s behavior control moderate the influence of process capabilities on the SR’s commitment?
RQ4: How do a SR’s absorptive capacity and its SP’s task-knowledge coordination influence its process capabilities?
Building on the RBV and resource dependency, we develop our model and hypotheses, which were tested using a survey-based methodology by collecting data from 183 firms in Taiwan. The proposed hypotheses were largely supported. Our results shed light on how different types of resources, a SR’s knowledge management capabilities in terms of AC, and a SP’s TKC and process capabilities, can be combined to form the resources and to create value so as to increase a SR’s commitment to the IOR.

This paper included five sections. The next section reviews the literature and develops a research model. The third section proposes the research hypotheses. The fourth section depicts the methodology, measurement of key variables, data analysis and results. Finally, we discuss our findings and provide the implications for research and practitioners.

2 LITERATURE REVIEW AND THEORY BUILDING

Prior work has considered the success of BPO from different perspectives, including extended duration of contract and scope of existing function (Bharadwaj et al. 2010, Goo et al. 2007), improved performance of business processes (Mani et al. 2010), successful control over the BPO (Rustagi et al. 2008), conducting BPO by providing alignment with the SR’s needs and flexibility of satisfying its evolving requirements (Tiwana 2010) among others. Empirical evidence also suggested that BPO success lies in a SR’s commitment to the relational exchange of BPO as only when the SR is willing to devote time and effort to this exchange with its SP, the interaction between them is able to be effectively achieved, resulting in successful outsourcing relations (Dwyer and Schurr 1987, Ganesan 1994, Heide and Miner 1992, Kern and Willcocks 2002, Zaheer and Venkatraman 1995).

This present study focuses on a strategic view by using theories such as resource dependence theory, the RBV, absorptive capacity to develop a theoretical model, delineating the relationships between knowledge management capabilities of the SP and its client, the SP’s process capabilities and commitment.

2.1 A strategic perspective of BPO: the resource-based view (RBV) and resource dependency theory (RDT)

While studies on the RBV followed the same logic of identifying the resources, the conceptualization of resources was diverse. Some reported that the extent to which a firm is able to gain competitive advantage relies on a chain of processes aimed at creating value by combining the resource internal to a firm and its partner’s (or others’) firm-specific capabilities.
Bharadwaj 2000). Others based on organizational learning theory suggested that clients’ active learning about the nuances of IT processes and services plays a key role in building IT capabilities (Huber 1991). Still others (Cohen and Levinthal 1990, Tiwana and Mclean 2005) emphasized the importance of a client’s absorptive capacity (AC) and argued that its learning from a BPO engagement is less likely to be effective unless a well-managed mechanism to facilitate knowledge acquisition and application, and learning is available. Finally, research noted that to accomplish the outsourced tasks, the vendor is required to understand the client-specific knowledge, or knowledge embedded in organizational routines and information channels that is essential for undertaking an outsourced task, and is able to work with the client in creating boundary-spanning problem-solving processes (Kanawattanachai and Yoo 2007, Susarla et al. 2010).

Thus, both the vendor and its client’s knowledge management capabilities, in terms of the client’s knowledge about the outsourced task and learning routines to build IT capabilities and cooperate with its vendor to monitor and manage the outsourced task, and the vendor’s capability of knowledge integration and coordination, can be viewed as resources to derive value.

Resource dependency theory (RDT) has been used to explain the reason for a firm’s engagement in inter-organizational activities to better use external resources aimed at increasing its competitive advantages (Pfeffer and Salancik 1978). RDT explains why a client firm is willing to commit to the outsourcing relationships—due to the strategic importance of the vendor, and the aim of RBV is to identify the resources and how resource can be combined to increase value. In this study, we theorize a SP’s process capabilities as the resource embedded in the IOR and view it as the reason for a SR’s commitment to BPO—thus process capabilities plays a dual role, both representing the capabilities of being a strategic partner and as the resources that help improve the performance of outsourcing.

This study also considers the interaction effects of antecedents of process capabilities on commitment. Process alignment is defined as a SP’s ability to establish routines and operating procedures to coordinate processes efficiently with its client and to learn how to improve these processes. Offering flexibility refers to a SP’s ability to access valuable knowledge and resources so as to deal with the changes of the SR’s demands. Partnering flexibility refers to a SP’s ability to capture emerging opportunities by adjusting its partners in order to provide knowledge or exploit opportunities to its SR because the SP is unable to replicate in a timely manner (Gosain et al. 2004, Rai and Tang 2010, Subramani 2004). While the above variables directly affect a SR’s commitment, the SP’s flexibility to offer services and to add partners
helpful for handling the outsourced task should each contribute more to commitment if the SP is able to align processes linked to these changes. In other words, process alignment complements offering flexibility to influence commitment. In a similar vein, we also posit the complementary role between process alignment and partnering flexibility, and between offering flexibility and partnering flexibility.

2.2 A moderating role of behavior control

Prior studies have emphasized the importance of a behavioral view of control in the context of both in-house and outsourced IS development (Choudhury and Sabherwal 2003, Ouchi 1979, Rustagi et al. 2008). This study defines control as attempts made by a client firm (or a SR) to affect the actions and behaviors of its vendor (or SP) by using certain mechanisms to better meet the SR’s goal. Research (Goo et al. 2007, Hitt et al. 1998, Rustagi et al. 2008, Teece et al. 1997) on strategic management noted that the capabilities enabling focal firms (i.e. SPs) to leverage their resources and engage in competitive actions are contingent on the environment (or the context) they face such as the control exercised across relationships. But there is a gap in our understanding about the influence of behavior control (viewed as a context) on the relationships between process capabilities and commitment. This is an important void to fill because failure to address the moderating effect of a SR’s behavior control increases the risk of partial use or misuse the capabilities of the SP. As the above analyses illustrate, we propose a conceptual model as shown in Figure 1.

Using the RBV and RDT

![Conceptual model]

Figure 1. Conceptual model
3 HYPOTHESIS DEVELOPMENT

This study proposed five groups of hypotheses—the direct effect of process capabilities on commitment (H1a-c), the two-way interactions (H1d-f), the moderating effect of behavior control on the direct relationships between process capabilities and commitment (H2a-c), the impact of AC (H3a-c) on process capabilities, and the influence of TKC (H4a-c) on process capabilities.

Both offering flexibility and partner flexibility (Gosain et al. 2004, Rai and Tang 2010, Subramani 2004) reflect a SP’s competence to capture and sense emerging opportunities, and its flexibility in either providing the needed service based on the changing demand of its client and access valuable resources and knowledge from the SP’s network of partners to better serve its SR. Thus, the more process capabilities a SP has, the more it has the ability to exploit market opportunities and transform them into the provided service to its SR—or viewed as having awareness, motivation, and capabilities to serve as a strategic partner of its SR based on literature on competitive dynamics.

When a SP possesses process capabilities, it is more likely to be treated as an important resource, based on the RBV, to the SR and having the strategic importance due to its ability to maintain its strategic relationship with other partners and to handle the SR’s applications with high strategic impact. Thus, as suggested by resource dependency theory, a SR tends to commit to the relationships with the SP, leading to H1a-c.

H1a: Process alignment positively affects commitment.
H1b: Offering flexibility positively affects commitment.
H1c: Partnering flexibility positively affects commitment.

When a SP is able to align processes with its SR’s changes or other partners, the SP is more likely to have the flexibility to either choose the most appropriate partner to collaborate with it so as to perform the outsourced task in an effective way or offer the needed products and services to its SR, thus we assume H1d-e. Similarly, when a SP has the ability to adjust its offered products and services based on its SR’s needs or access valuable knowledge and resources to cope with the SR’s changes or new demands, the SP is able to explore new market opportunities and to add and terminate its partners, i.e. partnering flexibility, leading to H1f.

H1d: Process alignment and offering flexibility positively interact to influence commitment.
H1e: Process alignment and partnering flexibility positively interact to influence commitment.
H1f: Offering flexibility and partnering flexibility positively interact to influence commitment.

The more behavior control imposed by the client, the more its vendor has the feelings of being distrusted and being treated as incompetent at performing the outsourced task. These negative feelings in turn cause the vendor to avoid conflicting with the client’s prescribed rules and procedures even they are not able to help effectively perform the outsourced task. We thus expect that as the client’s imposed behavior control increases, its vendor has less process capabilities to handle its outsourced task, reducing the influence of them on commitment.

H2a: Behavior control negatively moderates the relationship between process alignment and commitment such that the relationship is weaker when behavior control is higher.
H2b: Behavior control negatively moderates the relationship between offering flexibility and commitment such that the relationship is weaker when behavior control is higher.
H2c: Behavior control negatively moderates the relationship between partnering flexibility and commitment such that the relationship is weaker when behavior control is higher.

Theories (Chen et al. 2007, Sambamurthy et al. 2003) support the positive influence of a firm’s knowledge, in terms of acquiring new knowledge and applying it to solve the confronted problems, on its competitive advantages, as the more knowledge a firm has, the more it is able to aware the competitive environment, the challenges and opportunities, and to address the faced problem with flexibility and innovation such as providing better services by using different approaches or new insights learned from experience.

H3a: Absorptive capacity positively affects process alignment.
H3b: Absorptive capacity positively affects offering flexibility.
H3c: Absorptive capacity positively affects partnering flexibility.

Research on interorganizational relationships and IS has emphasized the influence of control and coordination mechanisms on a firm’s process capability (Bensou and Venkatraman 1995). Rai and Teng’s (2010) empirical work confirmed this by identifying such mechanisms with the capability to coordinate activities and align processes between partners, and accommodate new applications by providing standardized interfaces. In outsourcing, knowledge dependence between the SP and its SR and technological interfaces between them become the barriers of
successful implementation of the outsourced task (Susarla et al. 2010). Others identified the importance of a service provider’s knowledge about task goals, the interfaces between the outsourced process and other business processes in terms of knowledge flow, and the actual processes procedure being used in the operations of the task, and suggested using effective control structure for knowledge transfer (Bharadwaj et al. 2010, Kim and Kim 2008). Based on the above reasoning, we believe the SP’s TKC helps it better manage process alignment, and provide flexibility for performing BPO.

**H4a:** Task-knowledge coordination positively affects process alignment.

**H4b:** Task-knowledge coordination positively affects offering flexibility.

**H4c:** Task-knowledge coordination positively affects partnering flexibility.

## 4 RESEARCH METHODOLOGY, DATA ANALYSIS, AND RESULTS

We used the survey method to collect data and tested the proposed hypotheses by analyzing the data with the Partial Least Square (PLS) method. The unit of analysis was the client firm (or SR) with BPO experience.

This study developed the items of the questionnaire either by adapting the validated measures or by converting the definitions of antecedents into a questionnaire format. Specifically, the proposed model incorporates one dependent variable (commitment) (Goo et al. 2009, Goo and Huang 2008), five independent variables—four of them, including process alignment, offering flexibility, partnering flexibility, and task-knowledge coordination, considered the SP’s ability to fulfill the outsourced task from the SR’s perspective (Chen et al. 2007, Rai and Tang 2010, Sambamurthy et al. 2003), and the last variable measured the SR’s ability to absorb and apply knowledge, i.e. absorptive capacity, to manage the task (Cohen and Levinthal 1990, Tiwana and Mclean 2005, Zahra and George 2002).

We used backward translation—the material was translated from English into Chinese, and back into English; the research assistants helped compare the versions and resolve discrepancies, to ensure the consistency between the Chinese and the original English version of the questionnaire. We then pretested the initial version of the questionnaire by sending it to 32 firms in Taiwan. The items of this questionnaire were without modification due to the acceptable Cronbach’s alpha.

With the help of a firm’s chief operating officer, we identified the leaders of IS department and sent a letter of solicitation to them, including a brief description of the study, its goal, and a
copy of the questionnaire to be completed by the leaders. In total, 183 questionnaires were received and used for analysis, resulting in 21% of response rate, which is similar in surveys performed in Taiwan.

4.1 Analysis
We first conducted confirmatory factor analysis to evaluate the measurement model; then, assessing the structural relationships. PLS uses item reliability, convergent validity, and discriminant validity to test the measurement model. The reliability of individual item is based on the factor loading of it and a high loading indicates the shared variance between the construct and its measurement is higher than error variance. An item with a factor loading less than 0.5 should be dropped (Fornell and Larcker 1981, Hair et al. 1998). Table 2, 3 and 4 show the reliabilities and variance extracted, correlation between constructs, and the results of the hypotheses testing of direct effect respectively. Table 5 summarizes the results of hypotheses. lists the results of interaction and moderating effect.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Composite Reliability</th>
<th>AVE</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment(CM)</td>
<td>7</td>
<td>0.90</td>
<td>0.57</td>
<td>0.87</td>
</tr>
<tr>
<td>Process alignment (PA)</td>
<td>4</td>
<td>0.91</td>
<td>0.73</td>
<td>0.87</td>
</tr>
<tr>
<td>Offering flexibility (OF)</td>
<td>2</td>
<td>0.94</td>
<td>0.89</td>
<td>0.87</td>
</tr>
<tr>
<td>Partnering flexibility(PF)</td>
<td>3</td>
<td>0.89</td>
<td>0.74</td>
<td>0.82</td>
</tr>
<tr>
<td>Absorptive capacity (AC)</td>
<td>4</td>
<td>0.92</td>
<td>0.75</td>
<td>0.89</td>
</tr>
<tr>
<td>Task knowledge coordination (TKC)</td>
<td>4</td>
<td>0.90</td>
<td>0.70</td>
<td>0.86</td>
</tr>
<tr>
<td>Behavior control (BC)</td>
<td>3</td>
<td>0.91</td>
<td>0.77</td>
<td>0.85</td>
</tr>
<tr>
<td>Percentage of IT budget (ITB)</td>
<td>1</td>
<td>1.00</td>
<td>1.00</td>
<td>n/a</td>
</tr>
<tr>
<td>Contract duration (CD)</td>
<td>1</td>
<td>1.00</td>
<td>1.00</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 2. Composite Reliability, Average variance extracted

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>S.D.</th>
<th>CM</th>
<th>PA</th>
<th>OF</th>
<th>PF</th>
<th>AC</th>
<th>TKC</th>
<th>BC</th>
<th>ITB</th>
<th>CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM</td>
<td>5.219</td>
<td>1.177</td>
<td>0.755</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>5.064</td>
<td>1.236</td>
<td>0.583</td>
<td>0.854</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OF</td>
<td>4.817</td>
<td>1.304</td>
<td>0.571</td>
<td>0.744</td>
<td>0.943</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF</td>
<td>4.770</td>
<td>1.221</td>
<td>0.563</td>
<td>0.679</td>
<td>0.703</td>
<td>0.860</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC</td>
<td>5.038</td>
<td>1.217</td>
<td>0.574</td>
<td>0.674</td>
<td>0.711</td>
<td>0.725</td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TKC</td>
<td>5.075</td>
<td>1.170</td>
<td>0.623</td>
<td>0.659</td>
<td>0.635</td>
<td>0.736</td>
<td>0.759</td>
<td>0.837</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>5.313</td>
<td>1.148</td>
<td>0.469</td>
<td>0.482</td>
<td>0.497</td>
<td>0.377</td>
<td>0.522</td>
<td>0.491</td>
<td>0.877</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITB</td>
<td>2.273</td>
<td>1.379</td>
<td>0.010</td>
<td>0.123</td>
<td>0.102</td>
<td>0.106</td>
<td>0.003</td>
<td>0.042</td>
<td>0.046</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td>2.448</td>
<td>1.421</td>
<td>0.087</td>
<td>0.053</td>
<td>0.083</td>
<td>0.005</td>
<td>0.055</td>
<td>0.043</td>
<td>0.134</td>
<td>0.013</td>
<td>1.000</td>
</tr>
</tbody>
</table>
### Table 3. Correlation between constructs

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model1</td>
</tr>
<tr>
<td>Direct effects</td>
<td></td>
</tr>
<tr>
<td>PA(H1a)</td>
<td>0.280***</td>
</tr>
<tr>
<td>OF(H1b)</td>
<td>0.192**</td>
</tr>
<tr>
<td>PF(H1c)</td>
<td>0.247***</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
</tr>
<tr>
<td>Budget ratio</td>
<td>0.088*</td>
</tr>
<tr>
<td>Contract length</td>
<td>0.055</td>
</tr>
<tr>
<td>Two-way interactions</td>
<td></td>
</tr>
<tr>
<td>PA*OF(H1d)</td>
<td>0.218**</td>
</tr>
<tr>
<td>PA*PF(H1e)</td>
<td>-0.073</td>
</tr>
<tr>
<td>OF*PF(H1f)</td>
<td>-0.221**</td>
</tr>
<tr>
<td>Moderating effects</td>
<td></td>
</tr>
<tr>
<td>PA*BC (H2a)</td>
<td></td>
</tr>
<tr>
<td>OF*BC (H2b)</td>
<td></td>
</tr>
<tr>
<td>PF*BC (H2c)</td>
<td></td>
</tr>
<tr>
<td>△R2</td>
<td>0.417</td>
</tr>
<tr>
<td>F-statistic for △R2</td>
<td>9.34***</td>
</tr>
</tbody>
</table>

(\(F_{(0.1,1,173)}=2.70; F_{(0.05,1,173)}=3.84; F_{(0.01,1,173)}=6.63\))

### Table 4. Hypothesis results of interaction effect and moderating effect

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct effects</th>
<th>Interactions</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>PA → Commitment</td>
<td>0.280***</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b</td>
<td>OF → Commitment</td>
<td>0.192**</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c</td>
<td>PF → Commitment</td>
<td>0.247***</td>
<td>Supported</td>
</tr>
<tr>
<td>H1d</td>
<td>PA*OF → Commitment</td>
<td></td>
<td>Model 2 in Table 4 Supported</td>
</tr>
<tr>
<td>H1e</td>
<td>PA*PF → Commitment</td>
<td></td>
<td>Model 2 in Table 4 Not supported</td>
</tr>
<tr>
<td>H1f</td>
<td>OF*PF → Commitment</td>
<td></td>
<td>Model 2 in Table 4 Not supported</td>
</tr>
<tr>
<td>H2a</td>
<td>BC*PA (-) → Commitment</td>
<td></td>
<td>Model 3 in Table 4 Supported</td>
</tr>
<tr>
<td>H2b</td>
<td>BC*OF (-) → Commitment</td>
<td></td>
<td>Model 4 in Table 4 Supported</td>
</tr>
<tr>
<td>H2c</td>
<td>BC*PF (-) → Commitment</td>
<td></td>
<td>Model 5 in Table 4 Supported</td>
</tr>
<tr>
<td>H3a</td>
<td>AC → PA</td>
<td>0.410***</td>
<td>Supported</td>
</tr>
<tr>
<td>H3b</td>
<td>AC → OF</td>
<td>0.539***</td>
<td>Supported</td>
</tr>
<tr>
<td>H3c</td>
<td>AC → PF</td>
<td>0.392***</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a</td>
<td>TKC → PA</td>
<td>0.347***</td>
<td>Supported</td>
</tr>
<tr>
<td>H4b</td>
<td>TKC → OF</td>
<td>0.226***</td>
<td>Supported</td>
</tr>
<tr>
<td>H4c</td>
<td>TKC → PF</td>
<td>0.438***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01

### Table 5. Summary of results

#### 4.2 Direct effect, interaction and moderating effect

From Table 4, H1a-c were supported, showing a SP’s process capabilities, in terms of process alignment (\(\beta=0.28, p<0.01\)), offering flexibility (\(\beta=0.192, p<0.05\)), and partnering flexibility...
(β= 0.247, p<0.01), positively and significantly affected commitment. Similarly, our results supported H3a-c and H4a-c.

Interaction or moderating effect was calculated by comparing the difference between the main effect and the moderating effect models. We first measured the R-square ($R^2_1$) of the main effect, incorporating the dependent and independent variables, and moderator. Then, ($R^2_2$) of the moderating effect was assessed by including the dependent and independent variables, moderator, and interaction term. The estimated effect size of $f^2$ was derived from $(R^2_2 - R^2_1)/(1-R^2_2)$ and a pseudo F-value was obtained by multiplying $f^2$ with (n-k-1), where n is the sample size and k is the number of independent variables in the regression equation. The scores of $f^2$ with 0.03, 0.15, and 0.35 indicate small, moderate, and large interaction effects respectively. Finally, we compared the pseudo F-value with $F_{1,n-k-1}$. The above steps are able to measure the change of variance extracted by adding a new variable (the interaction term) into the model. Based on the results shown in Table 5, H1d, H2a-2c were supported, but H1e and H1f were not.

4.3 Common method variance (CMV)

CMV refers to the imminent threat of internal validity, and tends to occur in questionnaire-based studies eliciting responses in a single setting. This study used the following approaches based on Podsakoll et al. (2003) to address the problem caused by CMV. First, we collected data from two separate stages—with dependent and independent variables separated in time. In this study, the measures of commitment, and process capabilities, absorptive capacity, and task-knowledge coordination were handled in different stages. Second, we employed factor analysis to evaluate the CMV in the data set. According to Harman’s one-factor test, CMV is high if a single factor accounts for a majority of covariance in the dependent and independent variables. Our findings did not show such a single factor explaining a majority of the covariance. We thus conclude this study is less likely to have the CMV problem.

5 DISCUSSION

First, the findings about the direct effect, i.e. H1a-c, H3a-c, and H4a-c, confirm our theoretical model that the extent to which a service recipient’s commitment to the outsourcing relationships with its service provide after it has contracted with the provider relies on the SP’s competitive capabilities. Viewing knowledge management mechanisms and process capabilities as related resources and combining them to increase the quality of IOR in BPO provides a new insight into how SP is able to manage process capabilities and knowledge to enhance the quality of BPO.
Second, findings from H1d-f suggest that process alignment and offering flexibility are viewed as complementary capabilities. This in turn deepens our understanding of how commitment is affected by not only the direct effect of offering flexibility and process alignment, but also their interaction effect. H1e implies the contribution of a SP’s process alignment on its client’s commitment does not enhance significantly as the SP’s partner flexibility increases. Finally, based on H1f, offering flexibility and partnering flexibility are treated as substitutive capabilities, indicating that partnering flexibility decreases the benefit of using offering flexibility to affect commitment. Differentiating the “combination” of antecedents of process capabilities, in term of the complementary and substitute role played by them, deepens our understanding about the relationships between process capabilities and commitment.

Firms participating in BPO should recognize the resources either embedded in the IOR or derived from knowledge management initiatives. Extending the literature of competitive dynamics and resource dependency theory (Chen et al. 2007, Goo et al. 2007, Sambamurthy et al. 2003, Zaheer and Venkatraman 1995), this study conceptualizes a SP’s process capabilities in BPO, in terms of the direct influence of the antecedents (i.e. process alignment, offering flexibility, partner flexibility) of these capabilities on commitment and the two-way interaction effect between the antecedents. Thus, our findings suggest that outsourcing managers should not limit their attention to their service providers’ individual process capabilities only, rather they need to direct managerial attention to whether their service provider is able to complement their process capabilities, such as simultaneously using both process alignment and offering flexibility or findings related to H1d. Besides, from the perspective of SP, its flexibility of performing the outsourced task, or process capabilities, tends to decrease as its SR’s behavior control increases, but since behavior control characterized as expected goals and quality of the BPO is unavoidable, the SP should both earn its SR’s trust in terms of demonstrating the capabilities or devotion to the outsourced task and detail the processes of BPO to reduce the level of the SR’s behavior control.

In addition to process capabilities, to being treated as a strategic partner, a SP should emphasize the importance of knowledge management initiatives, in terms of the SR’s absorptive capacity and its SP’s task-knowledge coordination, as they play a key role in affecting the SP’s process capabilities based on our findings. A SP should either choose the SR possessing strong capability of absorptive capacity or educate the SR about how its business problems are solved by the outsourced task, as failure to do so is likely to cause the SR to doubt its vendor’s capability or willingness to help it achieve the outsourced task. Viewing the activities associated with knowledge management as “resources” advances our understanding about how a value delivery chain is able to be effectively managed and accomplished by combining knowledge and capabilities.
This study has three limitations. First, several other factors salient to commitment are not discussed in this study. For example, commitment can be evaluated from other perspectives such as economic perspective and social perspective, and including other antecedents such as requirement uncertainty and satisfaction. Second, studies based on a strategic view may also focus on the features of environment, and the structural IT capabilities as environmental turbulence may affect the influence of resource management on competitive performance and IT capabilities represent the underlying causes of resource management. Future research may examine their influence. Finally, given that cross-sectional surveys usually suffer the lack of causality as did this study, future work may center on in-depth process-oriented research design based on the RBV. This in turn is able to detail the reasons why a vendor’s process capabilities are affected by its task-knowledge coordination and its client’s absorptive capacity.

Reference


