THE IMPACT OF EMPLOYEE COMPETENCE ON ORGANIZATIONAL AGILITY: THE MEDIATING ROLE OF IT ALIGNMENT

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Abstract

Scholars have proposed that IT enables organizational agility by extending the reach and richness of firm knowledge and processes. However, this relationship is still open to debate. Based on the dynamic capabilities perspective, this paper proposes a model to investigate how employee competence (i.e., IT competence of business people and business competence of IT professionals) affects organizational agility through IT alignment. Data analysis results show that IT alignment fully mediates the influence of IT competence of business people and partially mediates the influence of business competence of IT professionals on organizational agility. In addition, the two kinds of competence are also positively interacting with each other to enhance IT alignment. We summarize with implications and suggestions for future research.

Keywords: Employee competence, IT alignment, Organizational agility.
1 INTRODUCTION

With the increasing uncertainty in consumer demand and rapid product obsolescence, developing agility to respond to market changes is becoming the major concern for firm competition (Dyer & Ericksen 2005). Organizational agility reflects a firm’s ability to sense environmental change and respond readily (Tallon & Pinsoneault 2011). Drawing upon prior work in digital options, scholars have proposed that IT enables organizational agility by extending the reach and richness of firm knowledge and processes (Overby et al. 2006; Sambamurthy et al. 2003). However, this relationship is still open to debate. Indeed, researchers have noted that due to relatively fixed physical and technological artifacts of information systems, IT may hinder and sometimes even impede organizational agility (Lu & Ramamurthy 2011). Under this condition, how does IT enhance organizational agility is still an interesting question?

The literature indicates that IT may be disable to enhance agility because of inflexible IT systems, rigid IT architectures, or complex nests of disparate technology silos (Lu & Ramamurthy 2011). In this view, scholars argue that the value of human capital may be especially apparent in firms that have invested heavily in IT. Firms tend to depend heavily on employee competence as key components in agility development (Crocitto & Youssef 2003; Ferguson & Reio Jr 2010). IS Research thus has consistently argued that IT professionals require business knowledge and skills and business people require IT knowledge and skills to serve their organizations effectively (Gorgone et al. 2003; Tallon 2007). However, some evidence suggests that the relationship between employee competence and organizational agility is still a “black box”, which requires more empirical investigation (Byrd et al. 2006; Dyer & Shafer 1998; Hamidi et al. 2009).

In the existing literature, some scholars have questioned the direct effect of employee competence on organizational agility by contending that the effects are mediated by other factors. Neumann & Fink (2007), for example, have proposed that competence of employees exert their influence on the organizational agility through IT infrastructure capabilities. On the other hand, some scholars argued that the collaboration between different departments is an important mediator that helps establish the network for employee’s effect on firm’s responsiveness to change (Nakata et al. 2011). In summary, both IT and collaboration between different departments are important in transforming employee competence into organizational agility. But few researches combine the two parts together.

In this study, we assume that IT alignment which concerns both the functional fit of IT infrastructure and the cooperation between people working in IT and business department could bridge this gap (Lee et al. 2008). The literature argues that assimilating IT into business processes enables real-time analysis and insights that provide support for operational, tactical, and strategy decisions, which is essential for agility (Liu et al. 2013). Accordingly, IT alignment, reflecting the integration between IT and business departments, has been defined as the important IT investment in organizational agility (He & Wong 2004; Zahra & George 2002). It is suggested that IT alignment could act as a kind of dynamic capabilities which addresses a dynamic environment via codification of knowledge into explicit strategies, contributing to a more precise implementation of complex IT-based strategies(Kearns & Lederer 2003).

Further, the literature indicates that both IT competence of business people and business competence of IT professionals could provide the basis for the functional integration between IT and business department (Bassellier & Benbasat 2004; Bassellier et al. 2003). By creating a superior alignment process, IT will be embedded in key business processes, the fit degree of IT and business resources can facilitate rapid responsiveness to change (Tallon & Pinsoneault 2011). In this view, we follow dynamic capabilities view and propose that employee competence (i.e. IT competence of business people and business competence of IS professionals) supports the development of IT alignment, thereby influencing organizational agility. The interaction effect of IT competence and business competence is also examined in the following section.
2 THEORETICAL BACKGROUND AND HYPOTHESES

The dynamic capabilities perspective is a widely used paradigm to explain the formation of firms’ sustainable competitive advantage (Winter 2003). This perspective proposes that organizational resources, dynamic capability, and operational capability could play important roles in the forming of competitive advantage (Helfat et al. 2009). Meanwhile, it argues that operational capability could be impacted by dynamic capability, which is supported by organizational resources (Teece 2007). Specifically, operational capability refers to a firm’s ability to accomplish the tasks based on the effective operational activities, such as marketing capitalizing and operational adjustments (Lu & Ramamurthy 2011). This capability reflects a procedure that can be used to respond to market changes, such as improving product/service, internal business rapidly responding operations and so on (Barki & Pinsonneault 2005). In this view, organizational agility is considered as an important kind of operational capability required for superior firm performance (Sambamurthy et al. 2003). Organizational agility is a firm-wide capability used to cope with market or demand changes through quickly improving product/service and developing business processes (Lu & Ramamurthy 2011). It involves not only the collecting information and monitoring product/service offerings but also the routine manoeuvring to provide fast response to changes.

Dynamic capability refers to the firm’s ability to integrate, build, and reconfigure internal resources and competencies (Cepeda & Vera 2007). Dynamic capability can be used to adapt operational routines and capability; it is a kind of higher level routines to develop new strategies. Previous literature proposed that IT alignment is a type of dynamic capability that means a good functional integration among organizational factors such as both business and IT resources, capability, infrastructure, and processes (Cepeda & Vera 2007; Kearns & Lederer 2003). It is a firm level process to integrate, gain and release employees’ knowledge and skills to make functional integration thus changing resource base. Kearns & Lederer (2003) suggested that IT alignment is viewed as a certain kind of organizational process address a dynamic environment via codification of knowledge into explicit strategies, contributing to a more precise implementation of complex IT-based strategies. In this way, IT alignment enables the firm to sense and size business opportunities that can directly affect organizational agility.

On the other hand, from a hierarchical perspective, a firm’s specialized knowledge and resources are the foundation of building other capabilities. These resources can be combined to generate dynamic capabilities (Neter et al. 1996). What’s more, IT alignment is widely defined as dynamic capability that can be formed by existing knowledge and resources. In particular, we are interested in the shared domain competence (knowledge and skill) that takes place between employees of IT and business departments. IT competence of business people helps to secure daily IT using value, and it is critical
to IT alignment because it helps IT department to plan and develop IT opportunities (Bassellier et al. 2003). Business competence of IT professionals is imperative in ensuring the firms have appropriate IT system and then achieving IT alignment (Kollmann et al. 2009).

Following this logic, this study proposes that both business competence of IT professionals and IT competence of business people are basic resources that can be leveraged to develop dynamic capability (IT alignment) that in turn directly affect organizational agility. Fig.1 shows the research framework.

2.1 IT Alignment

IT alignment, as a type of dynamic capability, refers to a firm’s dynamic process of functional integration among organizational factors such as both business and IT resources, employees, infrastructure, and processes (Kearns & Lederer 2003; Lee et al. 2008). It can define the firm’s strategy over time, because it plays a role in the formation process of the firm’s strategy to maximize business performance. IT alignment involves a series of “fit” activities, including aligning organizational infrastructure (administrative infrastructure, administrative process, and administrative skills) and IS infrastructure (IT architecture, IT process, and IT skills) (Luftman & Brier 1999; Schlosser 2012). The firm needs IT and business departments collaborate with each other to perform these “fit” activities efficiently and jointly to get strategic direction, organizational and technical flexibility thus achieving competitive advantage (Luftman & Kempaiah 2007). Under this condition, IT alignment, which is about functional integration, is essential in ensuring the firm’s competitiveness because it enables effective collaboration of human components and efficient integration of infrastructures in business and IT process.

The concept of IT alignment reflects a complex philosophy, which is not about rules and procedures. It is about collaboration and integration between IT and business department which cannot be easily imitated (Kearns & Lederer 2001). This alignment requires the firm to utilize organizational knowledge and expertise inherent in the employees from both IT and business department to manage the dynamic environment (Haes & Grembergen 2008). This requirement means that IT alignment can define how well the firm’s resource base is in different environment context. Therefore, IT alignment could act as a rare, valuable, and imperfectly imitable dynamic capability, which is critical to improving operational capability (Kearns & Lederer 2003).

As indicated by the dynamic capability view, a firm’s operational capability can be shaped by its dynamic capability. When the opportunity or needs arises, the firm’s dynamic capability can serve as the strategic options which enable the firm to shape the existing operational capability (Pavlou & El Sawy 2006). In the existing IT alignment research, scholars argue that the internal department integration can be utilized to achieve operational capability (Barki & Pinsonneault 2005). Agility literature also agrees that the firm’s agility is influenced by the extent of fit between IT and business processes (Lee 2004). This indicates that the foundation of the firm’s agility is to make use of IT alignment to develop a unique operational capability.

Accordingly, we propose that IT alignment is positively related to organizational agility. Business-IT alignment provides direction and organizational flexibility to allow business to respond to environmental threats and opportunities (Avison et al. 2004). Specifically, a firm with better IT alignment is good at sensing market changes and making flexible decisions through collaboration between IT and business department. IT alignment can enable organizational agility since essential changes in business operations demand can be easily communicated to IT professionals while the potential for IT-led capabilities to redirect business operations can be shared with people working in business department (Tallon & Pinsonneault 2011). This kind of collaboration can help catch new IT and market opportunities thus achieving rapid speed of responsiveness (Sambamurthy et al. 2003).

H1: IT alignment is positively related to organizational agility.
2.2 Competence of Employees

2.2.1 IT Competence of Business People

IT Competence of business people is the set of IT-related explicit and tacit knowledge that business employees possess that enable them to exhibit IT leadership in his or her area of business. Explicit knowledge is knowledge that can be taught, read, and explained (Gong et al. 2013; Roscoe & Chi 2007). Tacit knowledge is gained through personal experience and is not easily transmittable (Collins & Hitt 2006). Thereby, the nature of competence is defined by the IT knowledge and experience of business people. The knowledge dimension captures the specialized knowledge that is related to IT. The experience dimension means the activities that business people engage in to deepen their IT knowledge (Bassellier et al. 2003). We evaluated the breadth and depth of the IT knowledge and experience to assess the business people’s level of IT competence. The business people should have some knowledge and experience of the following areas: (1) different technologies used in the organization (2) different software applications (3) system development methods and project management practices (4) vision, goal setting, resource allocation, and performance monitoring regarding IT. These areas taken together represent the broad range of competence that a person can have in the IT domain.

The good competence of business employees can improve IT alignment via their supporting and promoting of IT utilization (Bassellier et al. 2003). More specifically, the competence of different technologies and software utilization enables the business department to embed IT applications into their daily work, thereby expanding the IT using value (Hong et al. 2006). Moreover, the competence of IT system development and project practices enables the employees in business department to make suggestions of the IT development, thereby making the IT applications be more suitable for the business processes (Kotlarsky & Oshri 2005). Furthermore, the competence of shared vision, goal setting with IT department about IT role enables them to understand the value of IT for their business units and endures that the functional integration between the two department.

H2: IT competence of business people is positively related to IT alignment.

2.2.2 Business Competence of IT Professionals

Business competence in IT professionals is defined as the set of business and interpersonal knowledge and skills possessed by IT professionals that enable them to understand the business domain, speak the language of business, and interact with their business partners (Bassellier & Benbasat 2004). For IT professionals, some institutions, such as Association for Computing Machinery, Association for Information Systems, and Association of Information Technology Professionals, have developed a new requirement for IT professionals: IS professionals must have a broad business and real world perspective, strong analytical and critical thinking skills, interpersonal communication and team skills, in addition to their information technology skills (Gorgone et al. 2003). Meanwhile, using knowledge as a resource and capability for organizational has been increasingly recognized (Easterby - Smith & Prieto 2008; Haas & Hansen 2005). Scholars suggest that business competence of IT professional help bridge the knowledge gaps between IT and business department, thus leading to the development of dynamic capability and operational capability (De Haes & Van Grembergen 2005).

Business competence of IT professionals can facilitate IT alignment through building a good IT-business partnership thereby helping IT professional get knowing and deep understanding what is the most suitable IT system is (De Haes & Van Grembergen 2009). It’s essential for IT people to create linkages with business department, broader business knowledge and interpersonal skills appear to be more effective than technical skills in this context.

H3: Business competence of IT professionals is positively related to IT alignment.
2.2.3 Interaction Effects of Two Kinds of Competence

Resources can be divided into complementary resources and supplementary resources, complementary resources are those that combine effectively with those the firm already has; supplementary resources are those that serve the same functions as the ones the firm already has (Jiang et al. 2010). Business competence of IT professionals and IT competence of business people should lead to better alignment because it is a complementary rather than supplementary combination. The two kinds of competence come from different departments and can leveraging each other’s effect through combination. Such combination will enhance communication between two departments. And this kind of direct personal contacts across functions ensures that business and IT capabilities are integrated into the business effectively (Reich & Benbasat 2000).

H4: business competence of IT professional and IT competence of business people will interact to positively affect the IT alignment (in addition to the main effects of each competence on IT alignment).

3 RESEARCH METHOD

3.1 Sample and Data Collection

We used a survey method to collect data in China to test the research model. We conducted the survey through the help of an educational institution. Our research needs the respondents in both business department and IT department. Under this condition, we cooperated with a Chinese educational institution to make our survey feasible. The educational institution is famous for its executive training programs, including the training courses about information systems and strategic management. Students in this training program have working experience and are suitable to fill out questionnaires. In addition, they also have different major and working backgrounds, and we can control the survey proportion of different departments.

The sample frame for this research comprised 200 respondents. After distributing the questionnaires, we made follow-up emails and telephone calls to non-respondents to encourage response. Finally, we received 139 returned questionnaires, and discarded 20 incomplete questionnaires. Thus, 119 valid questionnaires were used for the analysis, with a response rate of approximately 59.5%. The demographic information of the respondents is presented in Table 1. We estimated the non-response bias by virtue of the method suggested by Armstrong & Overton (1977). Comparing the first 25% of respondents and the final 25% on the chi-squares of key measures of responses, we found that there were no significant differences between these two groups on these items, which demonstrated that non-response bias was not a key issue in this study. The demography is shown in Table 1.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Items</th>
<th>Frequency</th>
<th>Percentage (%)</th>
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<tr>
<td><strong>Ownership types</strong></td>
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<td></td>
<td>State-owned</td>
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<td></td>
<td>Privately owned</td>
<td>43</td>
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<td></td>
<td>Foreign-controlled</td>
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<tr>
<td></td>
<td>Joint venture</td>
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<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>3</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Industry types</strong></td>
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<td></td>
<td>IT industry</td>
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<td>21.0</td>
</tr>
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<td>Iron and steel industry</td>
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<td>14.3</td>
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<td>Industry</td>
<td>Count</td>
<td>%</td>
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<td>--------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Finance industry</td>
<td>14</td>
<td>11.8</td>
<td></td>
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<tr>
<td>Mechanical equipment manufacturing</td>
<td>12</td>
<td>10.1</td>
<td></td>
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<tr>
<td>Others</td>
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<td>14.2</td>
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<tr>
<th>Firm size</th>
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<tr>
<td>100-299</td>
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<td>14.3</td>
</tr>
<tr>
<td>300-499</td>
<td>34</td>
<td>28.6</td>
</tr>
<tr>
<td>500-999</td>
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<td>3.4</td>
</tr>
<tr>
<td>1000-1999</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td>More than 2000</td>
<td>38</td>
<td>31.9</td>
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<table>
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<tr>
<th>Firm history</th>
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<tbody>
<tr>
<td>1-5 years</td>
<td>9</td>
<td>7.6</td>
</tr>
<tr>
<td>6-10 years</td>
<td>23</td>
<td>19.3</td>
</tr>
<tr>
<td>11-25 years</td>
<td>45</td>
<td>37.8</td>
</tr>
<tr>
<td>26-50 years</td>
<td>34</td>
<td>28.6</td>
</tr>
<tr>
<td>More than 51 years</td>
<td>8</td>
<td>6.7</td>
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</table>

<table>
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<tr>
<th>IT department size</th>
<th>Count</th>
<th>%</th>
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<tbody>
<tr>
<td>Less than 2</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>2-5</td>
<td>20</td>
<td>16.8</td>
</tr>
<tr>
<td>6-10</td>
<td>38</td>
<td>31.9</td>
</tr>
<tr>
<td>11-15</td>
<td>4</td>
<td>3.4</td>
</tr>
<tr>
<td>More than 16</td>
<td>52</td>
<td>47.9</td>
</tr>
</tbody>
</table>

Table 1. Sample Demographic (N=119).

3.2. Measures

All measures used in our survey were adopted from previous established studies. We revised some items slightly to make the questionnaire better fit with our study context.

The measures for IT competence in business employees were adapted from the instrument of Lee et al. (1995). Meanwhile the measures for business competence in IT professionals were adapted from Davis (2012). In this paper, we measured IT alignment with the items adapted from the work of Lee et al. (2008). The items used to measure organizational agility were adapted from Lu & Ramamurthy (2011). All items were assessed with five-point Likert scales, ranging from “strongly disagree” to “strongly agree”.

What’s more, the current research considered 4 control variables (i.e. industry, firm size, firm history and IT department size), which may impact organizational agility. We considered the number of full-time employees as a representation of firm size. Firm history means the years of firms operating. And the quantity of IT employees was used to test IT department size.

We collected the data in China, and all the instruments on the English questionnaire were professionally translated into Chinese by native Chinese speakers who are fluent in English and come from different majors. Afterwards, a professional translator helps us translate the Chinese questionnaire back into English. Comparing the translated English version with the original one, we found that there were no semantic discrepancies.
DATA ANALYSIS AND RESULTS

Partial least squares (PLS) is used in our study. For structural equation modeling, we followed the two-stage analytical procedures. In this paper, we examine the measurement model first. The structural model is then tested in the second step.

4.1 Reliability and Validity

There are 3 criteria to assess the convergent validity. First, the loading of each item should exceed 0.600. Second, Cronbach’s alpha and composite reliability should be significant and higher than 0.700. Third, the average variance extracted (AVE) should be higher than 0.500.

The results showed that the loadings of all items were above 0.600. Cronbach’s Alpha ranged from 0.800 to 0.934, and composite reliability ranged from 0.753 to 0.919. As shown in Table 2, these values of all constructs were higher than the benchmark of 0.700, which indicated the good reliability of the measurements. Further, the convergent validity was tested by the items’ average variance extracted (AVE). As Table 2 reports, the AVE values ranged from 0.501 to 0.704, which were above the 0.500 recommended level. The results showed that the measures had satisfactory convergent validity.

Table 2. Results of Confirmatory Factor Analysis (CFA).

To assess the discriminant validity, we compared the relationship between the correlations among the constructs and their square root of AVEs. As shown in Table 3, the largest correlation between constructs was 0.660, less than the recommended value of 0.710. The data indicated that the square roots of AVEs for all constructs were higher than the correlations between constructs, which verified the discriminant validity of the measurement model.

As one inter-construct correlation in Table 3 had value over the criteria of 0.600, we conducted a test to verify the potential threat of multi-collinearity. Generally, if variance inflation factors (VIFs) are greater than 10 or tolerance values are less than 0.10, the existence of multi-collinearity is proved (Mason & Perreault Jr 1991).

Table 3. Assessment of discriminant validity.
4.2 Structural Model

The results demonstrated that most of the hypotheses were supported. The results also indicated that both IT competence in business employees ($\beta=0.266$, $p<0.01$) and Business Competence of IT professionals ($\beta=0.515$, $p<0.001$) had a positive effect on IT alignment, as anticipated in H2 and H3. Consistent with H1, the IT alignment ($\beta=0.631$, $p<0.01$) had a positive effect on organizational agility. At last, the interaction effect is statistically significant ($\beta=0.200$, $p<0.01$) and H4 is supported.

4.3 Mediating Effect

The procedures proposed by Baron and Kenny are used to test the mediating effect of IT alignment. As shown in table 4, IT alignment fully mediated the relationship between IT competence and organizational agility, and partially mediated the relationship between IT competence and organizational agility. Table 4 presents the results of the structural model, which includes the T-value of endogenous variables.

<table>
<thead>
<tr>
<th>IV</th>
<th>M</th>
<th>DV</th>
<th>IV→DV</th>
<th>IV→M</th>
<th>IV+M→DV</th>
<th>Mediating</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>IT Align</td>
<td>OA</td>
<td>0.544***</td>
<td>0.663***</td>
<td>0.216*</td>
<td>0.493***</td>
</tr>
<tr>
<td>ITC</td>
<td>IT Align</td>
<td>OA</td>
<td>0.415***</td>
<td>0.557***</td>
<td>0.101</td>
<td>0.582***</td>
</tr>
</tbody>
</table>

Note:
1. BC: business competence of IT professionals; ITC: IT competence of business employees; IT Align: IT alignment; OA: organizational agility
2. * shows significance at the 0.05 level; ** shows significance at the 0.01 level, and *** shows significance at the 0.001 level.

Table 4. Coefficient in Regressions.

![Figure 2. Results for Structure Model.](image)
4.4 Interaction Effect Analysis

Hierarchical regression analysis is used to test the interaction effect (Kutner et al. 2005). The independent variables are mean-centered to minimize the possibility for multi-collinearity. We examined two models separately. The first model (Model 1) included the control variables and the independent variable-business competence. The result reveals that the control variables were not significantly related to IT alignment. The explained variance of Model 1 was significant; R square was 0.38 (F change=15.35, p<0.001). The second model (Model 2) was a full model with all variables and hypothesized interaction effects as independent variables. The explained variance of Model 2 was significant with an R square of 0.43 (F change=15.73, p<0.001). It shows that the two kinds of competence are positively interacted with each other (β=0.290, p<0.01).

<table>
<thead>
<tr>
<th></th>
<th>IT Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>Industry</td>
<td>-0.29</td>
</tr>
<tr>
<td>History</td>
<td>0.04</td>
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<tr>
<td>Firm Size</td>
<td>-0.07</td>
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<tr>
<td>IT Size</td>
<td>-0.03</td>
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<tr>
<td>Business competence</td>
<td>0.64***</td>
</tr>
<tr>
<td>IT competence</td>
<td>0.29***</td>
</tr>
<tr>
<td>BC*ITC</td>
<td>0.19***</td>
</tr>
<tr>
<td>R²</td>
<td>0.41</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.38</td>
</tr>
<tr>
<td>F change</td>
<td>15.35***</td>
</tr>
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</table>

Table 5. The Interaction Effect Analysis Between Two Kinds of Competence.

5 DISCUSSION, IMPLICATIONS AND LIMITATIONS

The purpose of this research is to investigate the influence of employee competence on organizational agility through IT alignment. By applying the dynamic capabilities view, this study proposes a conceptual model in which business competence of IT professionals and IT competence of business people, as basic resources existed in the organizations, can be used to exert influence on organizational agility through IT alignment. Our empirical findings on the effects of employee competence and organizational agility are not only consistent with prior studies (Neumann & Fink 2007; Shafer et al. 2001), but also offering a new mediating construct — IT alignment.

This study has provided empirical evidence of the performance implications of IT alignment. The findings have highlighted the critical role of IT alignment in achieving organizational agility. The results strongly support the claim that employee competence – both IT competence of business people and business competence of IT professionals – can help the firm to improve its IT alignment. From a hierarchical perspective, a firm’s specialized lower-order capabilities can be combined to generate higher-order ones. This finding is consistent with prior studies that proposed the notion that employees’ capabilities can help the firm develop firm’s IT alignment (Ferguson & Reio Jr 2010). The current study responds to the calls of scholars who have stressed the need for empirical research that examines the antecedents of IT alignment (Chan et al. 2006; Preston & Karahanna 2009). The research results have highlighted the amplifying role of employees’ individual competence in developing IT alignment.
The current study further finds that IT alignment can fully mediate the impact of IT competence of business people on organizational agility and partially mediate the impact of business competence of IT professionals on organizational agility. This mainly because the two kinds of competence play different roles in the organization, in the IT expanding context, IT competence can not influence organizational agility directly. This finding reinforces the view of dynamic capability, which proposes that basic resources can be used to achieve the firm level competitive advantage.

Nevertheless, it is necessary to evaluate the contributions of this study in light of certain limitations. First, there may be other mediators that influence the relationship between competence and organizational agility. Further research may extend the scope of this study by exploring the effects of knowledge gap, collaboration among different departments on firm performance (Nakata et al. 2011). Second, all major constructs in this study are measured by the perceptions of individual respondents, which are inherently subjective. Although our analysis results do not show that the common method bias is a serious problem, we urge further researchers to use objective data or collect data from multiple informants. Third, the generalizability of our findings may be limited by the demographic of the respondents. Specifically, we conducted the study only within the context of China. Although doing so may have enhanced the internal validity of this study, it has also limited the external validity of this particular work. Scholars and practitioners should, therefore, exercise caution in generalizing our findings to firms located in different economic, political, and cultural environments. Fourth, this study only considers four control variables. Future research should examine other possible control variables.

This study makes two major theoretical contributions. First, it bridges separate studies on human resource, IT and organizational agility. It empirically tests their relationships from the perspective of the employees’ importance. Our findings help address the value of employees competence (French 2011; Giardini & Frese 2008). The result demonstrates that, although employee competence does not have a direct impact on organizational agility, they do have an indirect effect through IT alignment.

Second, this study emphasizes the importance of basic employees. The field of organizations is divided into macro-organizations (i.e. organization theory), which studies the design, structure and performance of whole organizations, and micro-organizations (i.e. organizational behaviour), which studies the components of such organizations, such as teams and individual employees (Croson et al. 2012). There is high quality research that lives in both worlds, where micro informs macro outcomes. This paper starts from the basic employees, to discover the “people” value in achieving organizational agility.

This study also has major practical implications for managers. Firms have invested millions of dollars in human resource training to improve the employees’ individual competence. However, these investments may not reach their highest level of profit. Therefore, it is critical for managers to catch the training emphasize, employees in business department can take the IT knowledge courses and participate in the IT project. IT professionals should be invited to talk about the business problems; this kind of interaction will enhance the firm’s department integration.

Managers have to realize that justifying training investments based in the immediate impacts of employee competence is not appropriate. Rather, they should be aware of the interrelationships among employee competence, IT alignment and organizational agility. This study indicates that employee competence does not influence organizational agility directly. The firm should apply employee competence to improve IT alignment first, and then enhance organizational agility with IT alignment, which could then lead to superior performance.

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References


