Small and Medium-sized Information Technology Firms: 
Assessment of Non-local Partnership Facilitators

BY

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THESIS

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This thesis is dedicated to my Dad, (Erdogan Findikoglu), who motivated me to pursue the PhD study. Rest in peace, Dad!
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Any failure in the formulation of the research or application of methodologies is solely my responsibility.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>................................................................. 1</td>
</tr>
<tr>
<td>1.1 Small- and Medium-sized Firm Context</td>
<td>................................................................. 1</td>
</tr>
<tr>
<td>1.2 Information Technology Service Partnerships</td>
<td>................................................................. 5</td>
</tr>
<tr>
<td>1.3 Non-Local Information Technology Service Partnerships</td>
<td>................................................................. 7</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>THEORETICAL FOUNDATION</td>
<td>................................................................. 14</td>
</tr>
<tr>
<td>2.1 Alliance vs. Information Technology Service Partnership</td>
<td>................................................................. 15</td>
</tr>
<tr>
<td>2.2 Partnerships in Small- and Medium-sized Firm Context</td>
<td>................................................................. 17</td>
</tr>
<tr>
<td>2.3 Role of Trust in Small- and Medium-sized Firm Partnerships</td>
<td>................................................................. 24</td>
</tr>
<tr>
<td>2.4 Role of Location and Proximity in Small- and Medium-sized Firm Partnerships</td>
<td>................................................................. 26</td>
</tr>
<tr>
<td>2.5 Non-Local Partnerships</td>
<td>................................................................. 29</td>
</tr>
<tr>
<td>2.6 Small- and Medium-sized Firms’ Non-Local Partnerships</td>
<td>................................................................. 30</td>
</tr>
<tr>
<td>2.7 Partnership Formation</td>
<td>................................................................. 34</td>
</tr>
<tr>
<td>2.8 Theoretical Foundation of Partnership Formation</td>
<td>................................................................. 35</td>
</tr>
<tr>
<td>2.9 Facilitators of Non-Local Information Technology Service Partnerships</td>
<td>................................................................. 44</td>
</tr>
<tr>
<td>2.9.1 Partnership Capabilities</td>
<td>................................................................. 45</td>
</tr>
<tr>
<td>2.9.2 Organizational Proximities</td>
<td>................................................................. 49</td>
</tr>
<tr>
<td>2.9.3 Senior Managers’ Characteristics</td>
<td>................................................................. 50</td>
</tr>
<tr>
<td>2.9.4 Information Technology Service Characteristics</td>
<td>................................................................. 51</td>
</tr>
<tr>
<td>3</td>
<td>55</td>
</tr>
<tr>
<td>METHODS</td>
<td>................................................................. 55</td>
</tr>
<tr>
<td>4</td>
<td>59</td>
</tr>
<tr>
<td>EXPLORATORY INTERVIEWS</td>
<td>................................................................. 59</td>
</tr>
<tr>
<td>4.1 Recruitment</td>
<td>................................................................. 59</td>
</tr>
<tr>
<td>4.2 Demographics</td>
<td>................................................................. 60</td>
</tr>
<tr>
<td>4.3 Interview Instrument</td>
<td>................................................................. 62</td>
</tr>
<tr>
<td>4.4 Interview Procedure</td>
<td>................................................................. 63</td>
</tr>
<tr>
<td>4.5 Data Analysis Procedure</td>
<td>................................................................. 64</td>
</tr>
<tr>
<td>4.6 Findings</td>
<td>................................................................. 65</td>
</tr>
<tr>
<td>4.6.1 Partnerships in Small- and Medium-sized Firm Context</td>
<td>................................................................. 66</td>
</tr>
<tr>
<td>4.6.1.1 Partnership Definition</td>
<td>................................................................. 66</td>
</tr>
<tr>
<td>4.6.1.2 Partnership Motivation</td>
<td>................................................................. 67</td>
</tr>
<tr>
<td>4.6.1.3 Partnership Type</td>
<td>................................................................. 70</td>
</tr>
<tr>
<td>4.6.2 Non-local Partnerships</td>
<td>................................................................. 74</td>
</tr>
<tr>
<td>4.6.2.1 Partnership Portfolios</td>
<td>................................................................. 74</td>
</tr>
<tr>
<td>4.6.2.2 Non-Local Partnership Challenges</td>
<td>................................................................. 77</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS (continued)

4.6.2.3 Non-local Partnership Enablers ................................................................. 80
4.6.2.3.1 Organizational Capabilities ................................................................. 80
4.6.2.3.2 Organizational Proximities ................................................................. 84
4.6.2.3.3 Information Technology Service Type .................................................. 85

5  MULTIPLE CASE STUDIES ......................................................................................... 88
  5.1 Case Selection ................................................................................................. 93
  5.2 Recruitment .................................................................................................... 95
  5.3 Case Demographics ...................................................................................... 96
  5.4 Data Collection ............................................................................................. 101
    5.4.1 Interview Protocol ................................................................................... 102
    5.4.2 Data Collection Procedure ..................................................................... 103
  5.5 Data Analysis ................................................................................................ 106
    5.5.1 Coding ...................................................................................................... 107
    5.5.2 Analysis Procedure .................................................................................. 108

6  FINDINGS .................................................................................................................. 110
  6.1 Case Contexts ................................................................................................ 111
    6.1.1 Case Firms ............................................................................................... 111
    6.1.2 Partnership Portfolios ............................................................................. 116
    6.1.3 Technology Partnerships ......................................................................... 120
  6.2 Perceptions and Attitudes towards Partnerships ......................................... 121
    6.2.1 Partnership Motivation ........................................................................... 121
    6.2.2 Being Partner ............................................................................................ 122
    6.2.3 The Role of Trust in Partnerships ......................................................... 123
    6.2.4 Local Partnerships vs. Non-Local Partnership ....................................... 125
  6.3 The Role of Information Technology Service in Partnerships ..................... 127
  6.4 Partnership Formation Behavior ................................................................. 131
    6.4.1 Partner Search and Selection .................................................................. 133
    6.4.2 Coordination and Knowledge Transfer .................................................. 138
    6.4.3 Communication ....................................................................................... 139
    6.4.4 Governance ............................................................................................... 140
    6.4.5 Relationship Management and Bonding ................................................. 141
  6.5 Differences Between Local and Non-local Partnership Formation ............ 142
    6.5.1 Partner Search and Selection .................................................................. 142
    6.5.2 Coordination and Knowledge Transfer .................................................. 144
    6.5.3 Communication ....................................................................................... 147
    6.5.4 Governance ............................................................................................... 151
TABLE OF CONTENTS (continued)

6.5.5 Relationship Management and Bonding ................................................................. 151
6.6 Learning in Partnerships ......................................................................................... 153
6.7 The Role of Information and Communication Technologies in Partnerships ...... 154
  6.7.1 Information and Communication Technologies in Coordination .................. 155
  6.7.2 Information and Communication Technologies in Communication .......... 156
  6.7.3 Information and Communication Technologies in Service Provision .......... 158
6.8 Negative Cases ....................................................................................................... 158

7  DISCUSSION .................................................................................................................. 161
  7.1 Firm’s Partnership Capabilities............................................................................... 166
    7.1.1 Partner Assessment Capability ....................................................................... 167
    7.1.2 Coordination and Knowledge Transfer Capability ......................................... 170
    7.1.3 Communication Capability ............................................................................ 172
    7.1.4 Relationship Management and Bonding Capability ....................................... 175
  7.2 Organizational Proximity between Partners ......................................................... 176
  7.3 Information Technology Service Type ..................................................................... 180
  7.4 Senior Management Characteristics ....................................................................... 185
  7.5 Feedback Cycle to Firm Partnership Capabilities ................................................. 189

8  CONCLUSION .................................................................................................................. 192
  8.1 Implications for Research ....................................................................................... 193
  8.2 Implications for Practice ......................................................................................... 195

9  LIMITATIONS AND FUTURE RESEARCH ................................................................. 197
  9.1 Limitations ............................................................................................................... 197
  9.2 Future Research ...................................................................................................... 200

CITED LITERATURE .......................................................................................................... 206

APPENDICES ..................................................................................................................... 232

Appendix A. Exploratory Interviews - Firm Demographics ............................................. 232
Appendix B. Exploratory Interviews - Interview Protocol ............................................... 233
Appendix C. Exploratory Interviews - Codebook ............................................................. 238
Appendix D. Exploratory Interviews - Partnership Decision Flow Maps ....................... 240
Appendix E. Multiple Case Studies - Case Study Protocol ............................................. 243
<table>
<thead>
<tr>
<th>Appendix F. Multiple Case Studies - Interview Protocol</th>
<th>................................................................. 249</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix G. Multiple Case Studies - Analysis Procedure</td>
<td>........................................................................ 256</td>
</tr>
<tr>
<td>Appendix H. Multiple Case Studies - Codebook</td>
<td>........................................................................ 259</td>
</tr>
<tr>
<td>Appendix I. IRB Exemption Letters</td>
<td>........................................................................ 265</td>
</tr>
<tr>
<td>VITA</td>
<td>........................................................................ 271</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. SME Alliance Motivations</td>
<td>20</td>
</tr>
<tr>
<td>II. Alliance Risk Categorization</td>
<td>21</td>
</tr>
<tr>
<td>III. Factors Influencing SMEs' Partnership Choices</td>
<td>24</td>
</tr>
<tr>
<td>IV. SME Internationalization (Alliance Context)</td>
<td>32</td>
</tr>
<tr>
<td>V. Resource- and Complementarity-based Alliance Formation Studies</td>
<td>38</td>
</tr>
<tr>
<td>VI. Evaluation of TCE and RBV Theories</td>
<td>42</td>
</tr>
<tr>
<td>VII. Typology of IT Services (Adapted from Zaheer et al., 2009)</td>
<td>54</td>
</tr>
<tr>
<td>VIII. a. Participating Firms by Size</td>
<td>61</td>
</tr>
<tr>
<td>b. Participating Firms by IT Segment</td>
<td>62</td>
</tr>
<tr>
<td>IX. IT SME Partnership Motivation</td>
<td>69</td>
</tr>
<tr>
<td>X. IT Partnership Types</td>
<td>72</td>
</tr>
<tr>
<td>XI. Partnership Portfolios</td>
<td>76</td>
</tr>
<tr>
<td>XII. Non-local Partnership Challenges</td>
<td>79</td>
</tr>
<tr>
<td>XIII. Strategies to Overcome Non-local Partnership Challenges</td>
<td>82</td>
</tr>
<tr>
<td>XIV. Building Theory from Case Study Research</td>
<td>89</td>
</tr>
<tr>
<td>XV. Case Demographics</td>
<td>99</td>
</tr>
<tr>
<td>XVI. Interviewee Demographics</td>
<td>105</td>
</tr>
<tr>
<td>XVII. Partnership Portfolios</td>
<td>118</td>
</tr>
<tr>
<td>XVIII. Partnership Motivations</td>
<td>122</td>
</tr>
<tr>
<td>List Number</td>
<td>Table Title</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>XIX.</td>
<td>IT Service Characteristics and Associated Partnership Preferences</td>
</tr>
<tr>
<td>XX.</td>
<td>Potential Partner Sources</td>
</tr>
<tr>
<td>XXI.</td>
<td>Partnership Formation Differences between Local and Non-local Partnerships</td>
</tr>
<tr>
<td></td>
<td>(Example: Software Development Service)</td>
</tr>
<tr>
<td>XXII.</td>
<td>ICTs for Project Coordination and Communication</td>
</tr>
<tr>
<td>XXIII.</td>
<td>Facilitators of Non-Local Partnerships</td>
</tr>
<tr>
<td>XXIV.</td>
<td>IT Service Characteristics</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Impacts of Distance (Carmel &amp; Agarwal, 2001)</td>
<td>46</td>
</tr>
<tr>
<td>2. Partnership Formation Process Framework</td>
<td>133</td>
</tr>
<tr>
<td>3. Proposed Research Framework</td>
<td>191</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CIO</td>
<td>Chief Information Officer</td>
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<tr>
<td>COO</td>
<td>Chief Operating Officer</td>
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<tr>
<td>CRIM</td>
<td>Center for Research in Information Management</td>
</tr>
<tr>
<td>EHR</td>
<td>Electronic Health Records</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FTE</td>
<td>Full time employee</td>
</tr>
<tr>
<td>FTF</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HIMSS</td>
<td>Healthcare Information and Management Systems Society</td>
</tr>
<tr>
<td>IS</td>
<td>Information Systems</td>
</tr>
<tr>
<td>ISV</td>
<td>Independent Software Developer</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>ITA</td>
<td>Illinois Technology Association</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>RBV</td>
<td>Resource-based View</td>
</tr>
<tr>
<td>RDT</td>
<td>Resource Dependency Theory</td>
</tr>
<tr>
<td>RFP</td>
<td>Request for Proposal</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
</tbody>
</table>
LIST OF ABBREVIATIONS (continued)

SaaS  Software-as-a-Service
SBA  Small Business Administration
SIM  Society for Information Management
SME  Small- and Medium-sized Enterprise
TCE  Transaction Cost Economics
UIC  University of Illinois at Chicago
VP   Vice President
A two-phased qualitative study was carried out to explore the facilitators of non-local partnerships formed by small- and medium-sized firms (SMEs) and to analyze how these facilitators influence the partnership formation. Rooted in trust, proximity and dynamic capabilities lenses, the study focused on behaviors of SMEs performing in a very dynamic, competitive and highly interlinked industry, the IT industry, in a service provision context. Along with the conceptualization of IT service partnerships, propositions were derived and a research framework was presented.

For the first phase of the study, exploratory interviews were conducted with IT SMEs operating in Chicago metropolitan area. Information on demographics, partnership definitions, types and motivations, partnership portfolios and experiences was collected from senior managers of the firms via semi-structured interviews. Based on the findings, the research questions were elaborated. At the second phase, multiple case studies were conducted with Chicago IT SMEs; however, the scope was narrowed to software development and IT consulting firms that were older than 3 years and had 11-250 employees. The case pool consisted of firms without any partnerships, firms with local partnerships only, and firms with local and non-local partnerships. Information was obtained from key informants, public sources, documents and applications. Data was analyzed qualitatively.

The findings revealed that IT SMEs cooperated with other non-local (i.e. distant) IT firms to provide service to the market. These firms could, indeed build trust, the pivotal governance
factor in small firm partnerships, in the absence of geographical proximity. Not the firm size but the context-specific partnership capabilities, identified as dynamic capabilities, were influential on this firm choice. Furthermore, organizational proximities such as shared norms, values, networks, and local representation of the distant partner enabled formation of this type of partnerships. The depth and breadth of the partnership capabilities and organizational proximities were found to be moderated by the type of the IT service rendered via the partnership. Furthermore, confirming the organizational learning literature, the partnership capabilities were found to evolve through experience in non-local partnership formation. Hence, there was a feedback cycle from this firm behavior to the capabilities. Equally important were the impacts of the senior managers’ profile (such as experience and background) on the non-local partnership formation. According to the analysis, the senior manager characteristics not only influenced directly the formation behavior but also indirectly through partnership capability formation at the firm level.
1 INTRODUCTION

Over the last three decades, an increasing number of firms have looked beyond their corporate structure and sought to cooperate with other firms to develop and sustain a competitive advantage (Contractor and Lorange, 2002; Comino et al., 2007; Bierly III and Gallagher, 2007; Kale and Singh, 2009; Holmberg and Cummings, 2009). The scope of cooperation captures a wide variety of activities including research and development (R&D), product development, business development, sales and marketing, and product/service provision. To accomplish this cooperation, firms engage in different types of arrangements - alliances, partnerships, contractual or equity-based arrangements, and joint ventures - which vary in terms of structure, degree of commitment, duration and assets involved.

Osborn and Hagedoorn (1997) identify these interfirm relationships as “cooperative and competitive weapons. [E]ach is unique but they often share similar properties” (p. 274); Ahuja (2000) describes them as “voluntary arrangement[s] between independent organizations to share resources” (p. 426). Regardless of the format, cooperative interfirm relationships are strategic instruments, and firms use them to improve their competitive advantage while creating joint value for both partners. These linkages cater to a firm’s various needs such as access to complementary resources; coping with the uncertainty, complexity, and fluctuations in the market; sharing risk; facilitating organizational learning; and optimizing cost schemes (Forrest, 1990; Hagedoorn, 1993; Willcocks and Choi, 1995; Rai et al., 1996; Stuart, 2000; Hoffmann and Schlosser, 2001; Ireland et al., 2002; Park et al., 2002; Todeva and Knoke, 2005; Hagedoorn et al., 2009; Holmberg and Cummings, 2009). Cooperative interfirm relationships become a central component of a firm’s competitive and growth strategies.
The elevated interest in alliances is not, however, the outcome of “incidental emerging market curiosity”; rather, it is the consequence of the transition from a traditional, manufacturing-based economy to a knowledge-based and information technology (IT)-driven one (Contractor and Lorange, 2002, p. 486). The emergence of this “new” economy has led to a shift away from mass manufacturing, towards tailored production and knowledge-intensive services; away from rigid structures and markets, towards flexible accumulation and increased interactions among markets and firms (Scott, 2006). The new economy favors change and flexibility, and it calls on firms to provide fast-paced responses and increased agility and customization (Contractor and Lorange, 2002). Economic growth is now driven by investment in knowledge creation rather than in physical assets. Accordingly, business success requires the capacity to create and manage knowledge flows across economical players (de Laigue, 2004).

The transition to a knowledge-based economy has shaped the IT industry as well. First, the new economy triggered substantial modifications in regulations (e.g. further deregulation of industries, enforcement of new standards, and compliance requirements), policies (e.g. identification and codification of knowledge assets, expert systems and artificial intelligence, and focus on core business and outsourcing) and the environment (e.g. diversity of knowledge sources, sophistication of knowledge and capabilities) (Contractor and Lorange, 2002). Next, these changes dramatically increased the demand for IT services, particularly in terms of quality, agility, flexibility and sophistication. The increased complexity of IT products and services has had two effects: first, a greater interdependence among technology components and, secondly, an increased requirement for specialization in IT firms. In order to meet these requirements, the IT industry transformed itself from a vertically-integrated environment to horizontally-linked
segments, all of which offer highly interactive, specialized products and services (Iansiti and Richards, 2006).

To be competitive in this dynamic environment, IT firms adapted their business strategies and operational models accordingly. As they focused more on their core specialization areas, value creation through partnerships became inevitable. Mobile security is a relevant example of this phenomenon (Casey, 2011). Due to technological complexity, the scope of security is not limited to malware implementation but embraces multiple technologies in device management and protection. Thus, mobile security provision requires specialization in multiple technological components. Not many IT firms are equipped with multiple technologies (Casey, 2011); thus, they tend to form partnerships. This phenomenon is especially relevant to resource-constrained small- and medium-sized IT firms (IT SMEs).

On another note, a practitioner magazine (Information Week) reported that small- and medium-sized customers preferred to work with a single provider for all IT services. Only 14% of 3rd party providers could support the bundle of services required by small businesses such as mobility, managed services, and cloud solutions (Casey, 2011). Therefore, IT firms need to engage in partnerships to complement their service offerings. As an indication, a Boston Consulting Group study (2005) illustrates a steep increase in business service alliances, from 1% to 27%, between 1988 and 2004 mainly in the form of outsourcing arrangements. 51% of all alliances formed in 2000 were in the technology and communication industries.1 These statistics show the increased number of partnerships in services business in general and in the IT industry in particular.

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1 Source: Thompson Financial Strategic Alliance and Joint Ventures database (Cools & Ross, The Boston Consulting Group, 2005)
At the same time as the number of alliances has increased, 30-70% of them have failed (Kale and Singh, 2009; Dyer et al., 2001; Holmberg and Cummings, 2009). A practitioner cross-industry survey conducted with 93 large companies found that 57% of alliances established between 2001 and 2006 failed to meet their objectives (Weiss et al., 2006). Even the firms with a large alliance portfolio reported a 52% failure rate. This rate was 68% in the IT industry, significantly higher than the rates in health care, pharmaceuticals, manufacturing, and professional services. These alliances could neither meet the pre-set goals of the engaged firms, nor deliver the operational and strategic outcomes planned. The reasons for failure might be unique in each case; nevertheless, the research highlights deficiencies in partner selection (Bierly III and Gallagher, 2007; Holmberg and Cummings, 2009). In other words, firms’ partner choices are a crucial success factor in interfirm cooperation (Dacin et al., 1997; Ireland et al. 2002, Shah and Swaminathan, 2008). Therefore, a firm’s partner choices and firm behavior during that process call for closer analysis.

As alliances became popular in the corporate world, academia began to pay attention to alliance formation behavior. Examination of the extant literature reveals that research has focused mostly on the alliances formed by established, large, or international firms for R&D or innovation purposes. This is largely because of the availability of vast secondary data on R&D alliances (e.g. MERIT-CATI database\(^2\))^3. These datasets capture information only on publicly-announced alliances formed by large or international firms. Datasets are limited to R&D-intensive, “high-tech”\(^4\) industries such as biotechnology and semiconductors (Gilbert, 1988; Hagedoorn, 1993). Because of this purposive focus, research on IT alliances is concentrated either on high-tech industries or on large firms. Little scholarly attention has been paid to other

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types of partnerships in the technology domain (such as IT service provision) or partnerships formed by unknown, mostly private SMEs. Thus, our knowledge of the SMEs’ partnership formation behavior is limited. This research study aims to fill this gap by focusing on the non-local (i.e. distant) cooperation schemes of IT SMEs. The three distinct focal points underlined in this study are the SME-context, non-local partnerships, and IT service provision. In other words, this research is situated at the nexus between SME, information systems (IS), and alliance research.

1.1 Small- and Medium-sized Firm Context

The focal context in this study is the SME world. SMEs are characterized by fewer employees and functional divisions, constrained internal resources and external relationships, and lack of legitimacy compared to their larger peers (Hoffmann and Schlosser, 2001; Das and He, 2006; Street and Cameron, 2007). On the other hand, SMEs are relatively more flexible and responsive to the market requirements compared to large firms (Hannah and Walsh, 2008). This characteristic represents an advantage in dynamic markets like the IT industry. Statistics show that SMEs correspond to 99.7% of all the employer firms in the US economy. They employ half of all private sector employees, pay approximately 45% of total US private payroll, create more than 50% of nonfarm gross domestic product (GDP), and have been generating 60-80% of new jobs annually over the last decade. In fact, these firms are the engine of the economy, even though they are not dominant in their industries. In contrast to their importance for the economy, they are underrepresented in interfirm relationship research.

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Analyzing partnerships in the SME context is not a mere replication of the existing research studies on large firm alliances because the SMEs are not smaller versions of larger firms. Previous research indicates some critical differences between small and large firms in terms of resources, status in competition, legitimacy, history/track record, economic/political power, business focus, planning horizon, strategic purpose, and consistency of commitment (Das and He, 2006). In comparison to larger firms, SMEs have limited resource endowments; they have less resource slacks and smaller buffers to deal with mistakes and challenges (Wiklund and Shepherd, 2009).

These limitations have several consequences in terms of firm behavior. First, SMEs are more dependent on external resources, and the ability to acquire and integrate external and internal resources is more crucial for them than it is for larger firms. Secondly, since these firms lack the resources to control their environment, they tend to react to their environment rather than predict and control it (Baird et al., 1994). Third, compared to larger firms, SMEs are more concerned about the loss of technological assets (Narula, 2004). Thus, these firms are more risk averse and cautious in their interactions with their environment. Fourth, as a result of their resource constraints and their flexibility, SMEs’ decision making processes are more ad-hoc and contingency-based, and less formalized and structured. Due to these differences, the SMEs are likely to develop different strategies and adopt different firm behaviors than larger firms do, including partnership strategies. Therefore, although rooted in alliance theories, this study questions the transferability of the research premises based on large firm alliances to the SME context.
1.2 Information Technology Service Partnerships

In this research study, I focus on a specific type of the interfirm relationships: IT service partnerships. The partnerships are essential for the IT industry, especially for the SMEs. IT service provision is based on the orchestration of loosely or tightly coupled technology services. By nature, IT products and services are highly interdependent; only few of them can be offered on a stand-alone basis (de Laigue, 2004). The provision of products might trigger the demand for services or other products or vice versa. As the implementation of IT applications increases, the need for integration across these platforms expands as well (Iansiti and Richards, 2006). Additionally, the type of demand for IT services is not uniform; it varies substantially along a spectrum of services, from basic to sophisticated. This broad scope necessitates a high level of heterogeneity in terms of underlying technologies and architectures. To fulfill these requirements, IT firms need to develop specialized technical skills. However, it is difficult to acquire and maintain a gamut of technological capabilities and resources in-house. For resource-constrained IT SMEs, this objective is neither feasible nor sustainable. Therefore, to complement their competencies and to be competitive, IT SMEs need to form service partnerships.

The literature uses several terms to manifest cooperative interfirm arrangements, such as alliance, partnership, cooperation, coalition, joint venture, and consortia (Ring and van de Ven, 1994). Although these terms conceptualize interfirm relationships in general, each one reflects a specific context. For example, the term ”alliance” indicates a long-term relationship set for strategic purposes such as R&D or innovation, with a formal structure, sometimes involving equity arrangements. In joint ventures, two or more firms create a new organization independent from their legal statuses and inject equity. The context of cooperation studied in this research, namely IT service partnerships, has different properties than the abovementioned schemes have.
The objective of a service partnership is to directly fulfill the pre-defined requirements of a customer, rather than joint marketing, business or product development, R&D or outsourcing of internal IT operations. To differentiate this type of cooperative scheme from other types of alliances, I conceptualize the IT service partnership as an *operational cooperative arrangement among two or more IT firms to provide a specific IT service or product to the market*. However, the partnerships formed with technology / product suppliers (e.g. Microsoft, ORACLE, IBM or ERP firms) are excluded from the scope of the study.

**1.3 Non-local Information Technology Service Partnerships**

The third, but most central component of this research is non-local partnerships between IT firms, i.e., interfirm relationships between geographically distant partners. Compared to manufacturing, these partnerships are salient to service industries, including the IT industry, thanks to two factors: the nature of the IT service or task and recent technological developments. By nature, any service is intangible, inseparable from the source, perishable, heterogeneous, transferable, and culturally specific (de Laigue, 2004). Similarly, IT services are constituted of more information-intensive and less physical components; they are less dependent on physical presence (de Laigue 2004; Mithas and Whitaker 2007). According to the theory of service disaggregation, high information intensity enables disaggregation of a service into components via several methodologies like codification, standardization, and modularization (Mithas and Whitaker 2007). Depending on the service type, some components can be rendered remotely; thus, the location of the service provider is of lesser importance to the firm.

On another note, recent technological developments in terms of tools, platforms, and connections increase the degree of virtual coordination and communication between geographically-distant partners. Since IT firms are creators and implementers of these
technologies, they are likely to adopt the technological advancements faster than the firms in other industries. IT firms that are better equipped for cooperation over distance might engage in non-local partnerships.

The literature associates a firm’s tendency to form non-local relationships with firm size (Baird et al., 1994; Torre and Rallet, 2005): large firms show a greater propensity to cooperate with geographically distant partners. Due to their resource limitations, SMEs can allocate fewer resources to form and manage partnerships compared to the larger firms; thus, they choose local partners to minimize their efforts. There are three arguments supporting this view. First, trust is pivotal in SME relationships as a substitute for formal control mechanisms under uncertainty or resource deficiency (Hoffmann and Schlosser, 2001; Morrisey and Pittaway, 2006; Bierly III and Gallagher, 2007). Geographical proximity and collocation enable face-to-face (FTF) contact, and FTF contact facilitates trust building (Petruzzelli et al., 2007; Belso-Martinez, 2010). Since trust is an important governance mechanism for SMEs, they tend to cooperate with other local firms. Second, having flat organizational hierarchies, SMEs are accustomed to communicate via informal channels and FTF, as the need arises, rather than via regular, scheduled meetings, formalized status reports, or structured briefings (Ekanem and Smallbone, 2007). Due to this habit, local partnerships are more convenient for ad-hoc, spontaneous, and less costly communication.

Second argument for local partnerships is the impact of the founders and the senior managers on firm behavior. SME decisions are heavily influenced by senior managers’ or partners’ orientations (van Gils and Zwart, 2009). Founders establish the firms in their localities where their personal networks and business relationships reside. Afterwards, they tend to grow the business within the periphery of their networks via forming local interfirm relationships.
However, as I will discuss below, if founders and senior managers are oriented towards distant cooperation, firms show greater propensity to form non-local partnerships.

Finally, the resource-constrained SMEs face difficulties in dealing with the foreign partners such as investing in fixed costs to learn about foreign environments, communicating at long distances, and negotiating with national governments (Gomess-Casseres, 1997). All three of these factors influence SMEs to choose local partnerships over non-local ones.

Despite the arguments in favor of the local partnerships, SMEs do not necessarily maintain local interfirm relationships exclusively. In fact, they are involved in distant, even international, cooperation to complement or supplement their resources and services. Some small US and UK technology firms have been engaged in offshore software development since the late 1990s (Carmel and Nicholson, 2005). Similarly, some SMEs in the US consider using overseas service providers in the form of offshoring; a similar trend has been observed in the UK as well. These partnerships presumably provide the SMEs with advantages for growth. From a resource perspective, they become less dependent on the local resources and gain access to a much larger skill-pool. In terms of cost, they can enjoy cost differentials across the regions. Consequently, these advantages make these firms more competitive in the market; they will contribute more to the economy and create greater wealth for all stakeholders. Although this behavior is emerging in practice, little research has specifically addressed IT SMEs’ use of non-local partnerships for service provisioning. This research study aims to fill this gap in the literature.

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7 Online poll by SLASSCOM (Development body for Sri Lankan outsourcing), National Outsourcing Association in UK, (December, 2009)
The literature sheds light on SMEs international activities addressing import/export relationships, international subsidies or joint ventures, and trademark and/or licensing agreements (Ruzzier et al., 2006; Lu and Beamish, 2006; Wood et al., 2009; Ulubasoglu et al., 2009). The primary motivation of these international endeavors is different from those of non-local IT service partnerships. In this context, firms are interested in penetration into new markets, either through reaching new customers abroad or offering foreign products to the local customers (Osborne and Hagedoorn, 1997). In non-local IT service partnerships, the primary goal is not necessarily market expansion; instead, the aim is to increase efficiency and effectiveness of a domestic service by tapping into non-local resources. These differences introduce contextual differences between the two phenomena. Thus, though highlighting SMEs non-local operations, internationalization theories might not be directly applicable to non-local IT service partnerships.

To summarize the discussion, there is an intellectual puzzle addressed in this research study. The literature states that IT SMEs establish partnerships with other IT firms to complement their services. Due to the ease of building trust in close proximity and for the sake of convenience, IT SMEs prefer local partners. However, previous studies highlight SMEs non-local (e.g., international) activities in the form of import/export relationships, international subsidies, or joint ventures. While contextually different from the IT service partnerships, these international endeavors support the notion that IT SMEs may engage in non-local service partnerships. Our knowledge about this divergent firm behavior is limited; this research study is motivated to explore this missing link.

Integrating the perspectives introduced above, I explore the internal and external factors that may substitute for the lack of geographical proximity between partners and facilitate non-local cooperation. These factors in combination may enable trust development over distance and
offer firms the convenience to engage in non-local partnerships. Based on previous studies, I focus particularly on two factors, which narrow the distance between partners: alliance capabilities (Eisenhardt and Martin, 2000; Kale et al., 2002; Heimeriks and Duysters, 2007; Schreiner et al., 2009) and organizational proximities (Torre and Gilly, 2000; Torre and Rallet, 2005; Oerlemans and Meeus, 2005; Knoben and Oerlemans, 2006). On the one hand, I adopt the alliance capability to SMEs’ IT service partnerships and explore its role specifically in non-local partnership formation. On the other hand, I identify the organizational proximities that influence the phenomenon.

For SMEs, the literature lists other factors that shape a firm’s behavior. For example, senior managers’ orientations and background reflect a firm’s strategic choices and behaviors (Hambrick and Mason, 1984; Carpenter et al., 2004), including partnership strategies and practices (Tyler and Steensma, 1998; Pansiri, 2005; van Gils and Zwart, 2009). Similarly, senior managers’ networks facilitate the establishment of partnerships (BarNir and Smith, 2002). Hence, senior managers’ orientation, their backgrounds, and networks might be influential on non-local partnership formation as well. Last but not least, the IT artifact in this research is the IT service or task subject to partnering. The study analyzes the influence of the service type on non-local partnership formation directly and indirectly via determining the extent of required partnership capabilities.

With these motivations, and through addressing the aforementioned literature gaps, this study seeks to answer the following research questions:

- Which factors enable IT SMEs to form non-local partnerships with other IT firms for service provision?
- How do these factors influence partnership formation between distant IT firms?
The remainder of this dissertation is organized as follows: Chapter 2 discusses the literature on SMEs and alliances, and presents the theoretical foundation of the research study. The sections summarize and synthesize the literature in alliance and small business domains with a particular focus on IT service partnership conceptualization, partnerships in SME context, the role of trust, the influence of location on firm behavior, partnership formation, and enablers of non-local IT service partnerships. Chapter 3 portrays the two methods, i.e., exploratory interviews and multiple case studies conducted in this study. Chapter 4 discusses the first method with subsections on demographics, selection and recruitment strategies, interview and data analysis procedures, and presents the findings. Chapter 5 offers a detailed review of the case study methodology along with case selection, recruitment, case demographics, data collection and analysis procedures. In Chapter 6, the results of the case study analysis are presented. Combining the literature and the empirical findings, Chapter 7 discourses the enablers of the non-local partnership formation, and presents propositions and a research framework. Chapter 8 provides concluding remarks with implications on theory and practice. Finally, Chapter 9 concludes with limitations and future research directions.
2 THEORETICAL FOUNDATION

The previous section depicts the research problem to be explored in this study. The objective of this section is to understand the current state of the field on IT partnerships through a detailed literature review, and set the stage for the study. I build the theoretical foundation of this study on prior research in cooperative and collaborative interfirm relationships, and the small business literature focusing on distant partnerships. The literature on location and proximity contribute to the theoretical foundation as well. The exploratory nature of the research necessitates examining similar firm behaviors in other interfirm relationships. Therefore, I review vendor or supplier selection processes and choices in operations management, supply chain management and outsourcing domains.

To summarize the roadmap of the study, in this section:

- First, I review the alliance and partnership concepts and define IT service partnership, distinguishing it from an umbrella “alliance” term;
- Second, I discuss the partnerships in SME context;
- Third, I explain the trust concept and its importance in SME partnerships;
- Next, I analyze the impact of the location and the proximity on firm behavior;
- Then, I address the non-local partnerships and SMEs’ interest in non-local partnership formation;
- Afterwards, I discuss partnership formation behavior and review the theory spectrum on the phenomenon to address the gaps in the literature;
- Finally, I concentrate on the main facilitators of non-local partnership formation, such as IT service characteristics, firm’s partnership capabilities and others.

This passage, as a whole, provides a transition to the empirical study.
2.1 Alliance vs. Information Technology Service Partnership

According to Osborn and Hagedoorn (1997), cooperative interfirm relationships are “temporary mechanisms or long-lasting relationships” and “cooperative and competitive weapons” (p. 274). Street and Cameron (2007) characterize these linkages as “close, collaborative relationships between two or more firms with intent of accomplishing mutual goals that would be difficult to accomplish alone” (p. 241). Broadly, these interfirm relationships indicate that two or more parties have organizational, economic, strategic or political motivations to align their efforts towards a mutual goal by remaining legally independent. The relationships involve a two-way exchange of values between partners and ultimately a joint value creation. The partners contribute to each other, sharing risks and returns (Todeva and Knoke, 2005). Examples of cooperation are joint activities in sales, marketing, business development, product development, research, or service provision.

In academia and practice, various terms are interchangeably utilized to identify collaborative or cooperative arrangements among firms, associations or institutions, such as strategic alliances, partnerships, coalitions, joint ventures, franchises, research consortia, and other network forms (Ring and van de Ven, 1994). Semantically, there is not much difference between the terms “partnership” and “alliance”, but the way these terms implied in the literature reflects different conceptualizations. For example in the literature, the alliance term points a specific type of collaboration, i.e., a long-term relationship set for strategic purposes under a formal structure, sometimes involving equity arrangements. Alliances purposefully focus on new product development or innovation in the R&D intensive, high-tech industries, such as biotechnology and semiconductor industry.
As a specific type of alliances, technology or technology-based alliances are referred as interfirm cooperation where the partners are involved in a joint innovative activity or technology exchange (Hagedoorn, 1993; Cantwell and Colombo, 2007). The aim in these partnerships is to develop new technology or products, reduce technological uncertainty, increase innovative capacity, decrease innovation time-span and enhance market access (Hagedoorn, 1993; Stuart, 2000; Colombo et al., 2006; Hagedoorn et al., 2009). With these motivations, the partners have a long-term perspective of product-market positioning (Hagedoorn and Schankenraad, 1994; Stuart, 2000; Verspagen and Dusyters, 2004; Rothermal and Deeds, 2006). This definition excludes implementation of technologies and service provision to the market. In another categorization, alliances are grouped as technology/manufacturing and support alliances (BarNir and Smith, 2002). In the technology/manufacturing alliances, partners are motivated by future opportunities; therefore, they endow the alliance with financial investments and long-term commitments. On the other hand, in the support alliances, the partners jointly perform some business activities like sales, advertising, marketing, and training, to the less strategic, rather operational extent. In this case, the main motivation is cost reduction through resource sharing.

The IT service partnerships analyzed in this research do not exactly fit in the abovementioned categories; instead, they can be characterized as a mixture of them. These partnerships are formed for operational cooperation among two or more IT firms to provide an IT service or product to the market (such as development and implementation of a web application). For this project, the focal firm might cooperate with a user experience design firm, a hosting firm, or a network design and administration firm, based on the project requirements. Depending on the nature of the IT service subject to the partnership, the partners are motivated by future business opportunities, efficiency gains, or a combination of both in varying degrees.
To differentiate these cooperative schemes from the alliances, I conceptualize IT service partnership as an *operational cooperative arrangement among two or more IT firms to provide a specific IT service or product to the market*. In this study, I explore IT service partnerships formed by the small- and medium-sized IT firms. To understand firm’s partnership formation behavior, only those partnerships initiated by the focal firm are analyzed. Moreover, due to the differences in partner and partnership characteristics, the partnerships established with technology suppliers (e.g. Microsoft, ORACLE, IBM, ERP firms) are excluded from the scope of the study.

### 2.2 Partnerships in Small- and Medium-sized Firm Context

In this section, I discuss the partnership concept from SME perspective. According to The Office of Advocacy of the United States Small Business Administration (SBA), a small business is an independent business with a maximum of 500 employees. In the scholarly literature, the upper threshold can be as low as 100 employees. SMEs are firms with smaller employee sizes and fewer functional divisions (Hoffmann and Schlosser, 2001; Das and He, 2006; Street and Cameron, 2007). Using the firm size as a proxy for a firm’s resource level, the researchers posit that SMEs possess with limited internal resources and external relationships, thus, legitimacy (Hoffmann and Schlosser, 2001; Das and He, 2006). But, thanks to their small size, these firms are relatively more flexible and responsive to market requirements than their larger peers (Hannah and Walsh, 2008).

Reports by U.S. Department of Commerce, Bureau of the Census, state that as of 2006, there are six million SMEs representing 99.7% of all employer firms in the US. These firms create more than 50% of the nonfarm gross domestic product (GDP). From an employment

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8 Source: [http://www.sba.gov/advo/index.html](http://www.sba.gov/advo/index.html)
perspective, they employ half of all private sector employees and 40% of all high tech workers (such as scientists, engineers, and computer workers), pay approximately 45% of total US private payroll, and have generated 60-80% of new jobs annually over the last decade. As these statistics illustrate, SMEs are engines of the national economy. Since most SMEs are privately-owned, their operations, like alliance activities, are not recorded and followed publicly.

Due to their resource limitations, establishing and fostering interfirm cooperation is a pivotal mechanism for the health and the growth of SMEs; these ties are perceived as strategic mechanisms to overcome their resource constraints (Forest, 1990; Das and He, 2006, Hannah and Walsh, 2008). Previous research on SME interfirm relationships is limited and presents conflicting findings compared to larger firms. For example, Shan (1990) posits that small firms are more likely to form cooperative arrangements than larger firms are. Colombo et al. (2006) argue that the innovative high-tech small startups are more likely to establish alliances but the tendency decreases when firm size increases. Conversely, Hagedoorn and Schankenraad (1994) claim that SMEs reveal less propensity to cooperate compared to the larger firms, which tend to be more inclined to establish strategic partnerships.

Regardless of the size, firms are found to have several motivations form alliances (Colombo, 2003). These are: 1) Efficiency-oriented motivations (e.g. minimization of transaction costs and time to market), 2) Resource- or competency-oriented motivations (e.g. access, exchange, transfer and pooling of resources), 3) Strategic positioning-oriented motivations (e.g. development of new markets, and heightening entry barriers), and 4) Learning-oriented motivations (e.g. knowledge creation and exchange).

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Though each category represents an important dimension, the SME literature emphasizes resource- or competency-oriented motivations heavily. For SMEs, access to a partner’s resources increases the competitive advantage, facilitating growth and innovation (Street and Cameron, 2007; Hannah and Walsh, 2008). As a consequence of this resource enhancement, SMEs achieve efficiency gains, i.e., decrease in operational costs and increase in service quality). Exchanging business leads, SMEs use partners as additional sales and marketing channels (Gulati et al., 2009). The partnership serves as an information channel to rapidly acquire market information on the new products, services, and research findings, so that SMEs can effectively deal with uncertainties and respond promptly to market requirements (Lawson et al., 1994; Weaver et al., 1997). Therefore, in the SME context, the most important motivation for partnership formation is access to markets, resources, information and capital (Forest, 1990; Hull and Slowinski, 1990; van Gils and Zwart, 2009). Table I summarizes these motivations.

Although beneficial, engaging in partnerships has crucial implications for the firms in general. For example, partners might have conflicting or competing interests, incompatible goals, or differences in terms of corporate culture, managerial practices, strategic orientation, even in technological systems (Das and Teng, 2000). Once engaged in a cooperative arrangement, the firms become vulnerable to lose their property rights, their control over the confidential business information or even the customer ownership (Lawson et al., 1994).
TABLE I. SME Alliance Motivations

<table>
<thead>
<tr>
<th>Study</th>
<th>Context</th>
<th>Motivations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forrest (1990)</td>
<td>Alliances by technology SMEs</td>
<td>• Access to capital, markets, and resources especially important for small technology firms with asymmetric resources</td>
</tr>
<tr>
<td>Hull &amp; Slowinski (1990)</td>
<td>Alliances between small and large firms in technology development and commercialization contexts</td>
<td>• For large firms: inventive efficiency, speed and reduced uncertainty, entry into new market segments, new window on technology, complementarity • For small firms: access to resources</td>
</tr>
<tr>
<td>Lawson et al. (1994)</td>
<td>Interfirm linkages by regionally-clustered high tech SMEs</td>
<td>• Increased amount of information about new products, improved quality, improved access to research findings, greater responsiveness to market requirements, more effective and innovative R&amp;D</td>
</tr>
<tr>
<td>Weaver et al. (1997)</td>
<td>SME alliances (general)</td>
<td>• Reduction of environmental uncertainty</td>
</tr>
<tr>
<td>Hannah &amp; Walsh (2008)</td>
<td>SME alliances (general)</td>
<td>• To overcome resource constraints</td>
</tr>
<tr>
<td>van Gils &amp; Zwart (2009)</td>
<td>SME alliances (general)</td>
<td>• Access to markets, resources, tacit knowledge or capital • The motives vary with alliance’s functional area, SMEs industry and manager characteristics</td>
</tr>
</tbody>
</table>

The risks associated with alliances can be categorized in two groups: 1) Relational risks (e.g. intellectual property risks, misalignment of incentives, partnering lock-in), and 2) Performance risks (e.g., coordination, innovation, input supply and scope mismatch risks) (Brouthers et al., 1995; Das and Teng, 1996, Comi and Eppler, 2009). Relational risks are caused by the partner’s opportunistic behavior. For example, a partner might use the focal firm’s intellectual property or proprietary information without its approval or forge a relationship with
its competitors or customers. Furthermore, the partnerships might lock the firm into a long-term and binding relationship with possible negative consequences. On the other hand, performance risks are related to insufficient partnership outcomes. For instance, the partners might not coordinate with each other efficiently, be unwilling or unable to supply key inputs in a timely manner or in line with the scope of the original agreement during the cooperation. They might be unable to maintain adequate level of innovation to support the partnership needs (Das and Teng, 1996). Table II summarizes the most severe risks faced in strategic alliances (Comi and Eppler, 2009).

**TABLE II. Alliance Risk Categorization**

<table>
<thead>
<tr>
<th>Risk Classification</th>
<th>Description</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational risk</td>
<td>Partner might use focal firm’s proprietary information</td>
<td>Intellectual property risk</td>
</tr>
<tr>
<td>Relational risk</td>
<td>Partner might forge relations with competitors of the focal firm</td>
<td>Misalignment of incentives risk</td>
</tr>
<tr>
<td>Relational risk</td>
<td>Selection of a specific partner might lock the focal firm into a binding relationship</td>
<td>Partner lock-in risk</td>
</tr>
<tr>
<td>Relational/Performance risk</td>
<td>Partners might not coordinate with each other efficiently</td>
<td>Coordination risk</td>
</tr>
<tr>
<td>Relational/Performance risk</td>
<td>Partner might be unwilling/unable to supply key inputs in a timely manner</td>
<td>Input supply risk</td>
</tr>
<tr>
<td>Performance risk</td>
<td>Partners might not be able to maintain adequate level of innovation to support the partnership needs</td>
<td>Innovation risk</td>
</tr>
<tr>
<td>Performance risk</td>
<td>Partners might deliver products or services not in line with the scope of the original agreement</td>
<td>Outside scope risk</td>
</tr>
</tbody>
</table>
Like any other firm, the SMEs encounter the abovementioned risks in their partnerships. However, due to the liability of smallness, the possibility and the extent of the negative consequences are higher for them. As discussed before, these firms form partnerships to overcome their operational resource limitations; but ironically, formation and maintenance of these collaborative arrangements requires additional managerial resources (Narula, 2004). Apparently, SMEs lack the resources, including the managerial ones, to control and govern the partnerships effectively (Comi and Eppler, 2009). For instance, they do not have dedicated departments, functions or employees for partnerships; usually, a few senior managers are involved in partnership activities in addition to their operational duties. Hence, the SMEs are less equipped to manage the alliance risks compared to their larger peers.

Moreover, when SMEs partner with larger firms, they are under the risk of exploitative or opportunistic behavior by their larger partners due to resource imbalance (Baum et al., 2000; Das and Teng, 2000; Das, 2005). Exposing their internal practices and distinct competencies to larger partners, SMEs might lose control over their strategic assets such as intellectual property or knowledge (Gomes-Casseres, 1997; Baum et al., 2000; Comi and Eppler, 2009), and thus, their business niche. Consequently, they tend to be more concerned about the loss of technological assets compared to their larger peers (Narula, 2004). Due to these differences between small and large firms, SMEs’ attitudes towards partnerships, partnership formation behaviors and associated choices tend to be different than those of larger firms.

SME literature highlights numerous factors influential on partnership choices in both domestic and international alliance contexts; these factors can be categorized in three groups: organizational, founder/manager, and relationship. The most frequently listed factors are the organizational ones like age, size, assets, management practices, culture, and position in the
industry, institutional and individual networks and international activities (Baird et al., 1994; Hannah and Walsh, 2008; Hoffmann and Schlosser, 2001; Colombo et al., 2006; Ulubasoglu et al., 2009; van Gils and Zwart, 2009; Belso-Martinez, 2010). SMEs’ organizational practices, including partnership engagements, are reflections of their senior managers’ or founders’ orientations (BarNir and Smith, 2002; van Gils and Zwart, 2009). These orientations are influenced by individuals’ ethnic or cultural backgrounds, values, professional and social networks (Weaver et al., 1997; BarNir and Smith, 2002; Ruzzier et al., 2006). Therefore, founder/manager factors, such as orientation, experience, and networks, play an important role in SME partnerships (Weaver et al., 1997; BarNir and Smith, 2002; Ruzzier et al., 2006; Ulubasoglu et al., 2009; van Gils and Zwart, 2009).

In terms of the relationship factors, past ties and prior experiences have a substantial impact on SME partnerships (van Gils and Zwart, 2009). Moreover, cultural and organizational compatibility are found to be influential in international partnership choices (Hara and Kanai, 1994). However, the most important factor in SME partnerships has been identified as trust (Larson, 1991; Hoffmann and Schlosser, 2001; Bierly III and Gallagher, 2007). Table III summarizes the factors described above. The next section discusses the role of trust in interfirm relationships first in general and then for SMEs in particular.
### TABLE III. Factors Influencing SMEs’ Partnership Choices

<table>
<thead>
<tr>
<th>Factors</th>
<th>Study</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founder/Manager related factors</td>
<td>Weaver et al (1997)</td>
<td>General alliances</td>
</tr>
<tr>
<td></td>
<td>BarNir &amp; Smith (2002)</td>
<td>General alliances</td>
</tr>
<tr>
<td></td>
<td>Ruzzier et al. (2006)</td>
<td>Internationalization</td>
</tr>
<tr>
<td></td>
<td>Ulubasoglu et al. (2009)</td>
<td>Emerging market</td>
</tr>
<tr>
<td>Organizational factors</td>
<td>Baird et al (1994)</td>
<td>International strategic alliances</td>
</tr>
<tr>
<td></td>
<td>Hoffmann &amp; Schlosser (2001)</td>
<td>General alliances</td>
</tr>
<tr>
<td></td>
<td>Colombo et al. (2006)</td>
<td>High-tech startup alliances</td>
</tr>
<tr>
<td></td>
<td>Ulubasoglu et al. (2009)</td>
<td>Emerging market</td>
</tr>
<tr>
<td>Networks (institutional/individual)</td>
<td>Hannah &amp; Walsh (2008)</td>
<td>Interfirm cooperation in manufacturing</td>
</tr>
<tr>
<td>Relationship factors</td>
<td>Hara &amp; Kanai (1994)</td>
<td>International partner selection</td>
</tr>
<tr>
<td>Trust</td>
<td>Larson (1991)</td>
<td>Entrepreneur alliances</td>
</tr>
<tr>
<td></td>
<td>Hoffmann &amp; Schlosser (2001)</td>
<td>General alliances</td>
</tr>
<tr>
<td></td>
<td>Bierly III &amp; Gallagher (2007)</td>
<td>General alliances</td>
</tr>
</tbody>
</table>

### 2.3 Role of Trust in Small- and Medium-sized Firm Partnerships

The concept of trust has been repeatedly underlined as a precondition and pivotal factor in working relationships (Larson, 1991; Moeller and Gamm, 2005). In the management and sociology literature, trust is described as the confidence in either predictability of one’s expectations or another party’s goodwill. It refers to faith in moral integrity produced through interactions among individuals or firms (Ring and van de Ven, 1994).
There are two components of trust; structural and behavioral. The structural component represents a party’s expectation that the other party will not engage in opportunistic behavior, violate values and principles, whereas the behavioral component reveals the degree of confidence on the other party’s integrity and reliability (Kale and Singh, 2009). Contrary to the opportunism, trust contains a positive assumption about the motives and the intentions of other parties (Moeller and Gamm, 2005). Research identifies two levels of trust, namely individual and institutional (Gulati, 1995; Moeller and Gamm, 2005; Bierly III and Gallagher, 2007). At the individual level, trust is embedded in individuals’ beliefs and cognitions. The individuals utilize trust as governance and control mechanism in interpersonal relationships. On the other hand, in a business or institutional context, trust is structured at the institutional level when the individuals act within and at the interfaces between organizations. Thereby, the institutional trust plays a decisive role in working relationships (Moeller and Gamm, 2005).

Trust has implications on firm behavior. Once developed, it transforms uncertainty into risks that can be mitigated, decreases the social complexity by bridging over the gaps of incomplete or non-existing information about the future partner’s behavior, and reduces opportunistic behavior (Moeller and Gamm, 2005). It increases the efficiency and flexibility of decision making (Moeller and Gamm, 2005; Li et al., 2008). Trust enables efficient interactions: partners trusting each other are likely to show greater awareness of each other’s processes, procedures and routines. Thus, these partners tend to have greater competence in cooperation with each other (Gulati and Singh, 1998). Since trust diminishes the opportunistic behavior, it is likely to reduce the transaction and governance costs in interfirm relationships as well. Ultimately, the degree of trust between partners affects the governance structure in the partnerships (Gulati, 1995, Gulati and Singh, 1998; Bierly III and Gallagher, 2007; Li et al.,
2008). In other words, trust substitutes for the hierarchical contracts in interfirm relationships and serves as an alternative control mechanism (Gulati, 1995; Gulati and Singh, 1998).

Trust is identified as a governance or control mechanism utilized under resource deficiency as well. Firms with limited resources, such as entrepreneurs and SMEs, rely more on building trust with their partners than setting a hierarchical structure and allocating additional resources to govern the partnership (Larson, 1991; Hoffmann and Schlosser, 2001; Morrisey and Pittaway, 2006; Colombo et al., 2006; Bierly III and Gallagher, 2007; van Gils and Zwart, 2009). On another note, partnerships involve information sharing between partners, but also bear the risk of misuse and disclosure of confidential information. SMEs are more risk averse and vulnerable to these adverse impacts than the larger firms are. Therefore, trust becomes crucial to mitigate the alliance risks in SME partnerships (Hoffmann and Schlosser, 2001; BarNir and Smith, 2002; Morrisey and Pittaway, 2006; Bierly III and Gallagher, 2007). Thus, SMEs evaluate their partnership alternatives and make associated decisions through the trust lens.

One of the facilitators of trust development is the geographical proximity between two partners (Petruzelli et al., 2007; Belso-Martinez, 2010). In the following section, I explore the role of location and proximity in trust development, thus, SMEs’ partnership choices.

2.4 Role of Location and Proximity in Small- and Medium-sized Firm Partnerships

Location is an influential construct on the firm behavior; it is defined as “historically evolved socioeconomic, cultural and political setting with physical environment where social processes and economic changes take place” (Gilbert, 1988; Malecki, 1991). It is an intermediary space for individual-, firm-, and institution-level interactions (Torre and Gilly, 2000; Gertler, 2003). These interactions are shaped by the economic, social, and cultural contexts of the spatial setting, in which they are situated. Thus, the firms are bounded, to a
certain extent, by their location. In other words, their decisions are influenced by the location, region or community that corresponds to their own and their partner’s ecosystem (Todeva and Knoke, 2005).

The literature identifies a partner’s location as one of the partner selection criteria; however, it is salient to specific types of partnerships. For example, the location of facilities is a significant criterion in the international joint venture context (Geringer, 1991). Similarly, the supply chain and purchasing literature recognize a partner’s location as a factor in vendor or supplier selection. According to Weber et al. (1991), the seminal study of Dickson (1966) on the purchasing behavior lists 23 vendor selection criteria and ranks them according to the importance as extreme, considerable, average and slight; the partner’s location is considered of average importance. This emphasis suggests that the location matters in purchasing domain where physical inputs/outputs need to be distributed across sites. Likewise, in supply chain management literature, supplier selection construct comprises three factors: (1) supplier quality, (2) supplier service and (3) strategic/management fit. The geographical compatibility is a part of the supplier service dimension (Hsu et al., 2006). On the contrary, this criterion is not deemed as important for partnerships in service industries, including the IT industry, where service delivery does not require physical exchange or transportation of goods.

From a relationship perspective, the important concept is not the partner’s location per se, but the distance or the geographical proximity between partnering firms. Geographical proximity increases the possibility of repeated social and professional interactions and FTF contact between partners. FTF is a rich communication medium; it can convey multiple cues via body language and tone of voice. Hence, this medium provides both the capacity and the bandwidth required to process complex and subjective messages (Daft and Lengel, 1986; Trevino et al., 1990).
situations where equivocality and uncertainty exist, rich communication media enable the parties to overcome the reference base differences (Daft and Lengel, 1986). Consequently, enhanced FTF contact and social connections facilitate information and knowledge exchanges, innovation, development of individual- and firm-level trust, teamwork and sharing of norms and values (Krugman, 1991; Saxenian, 1996; Gaspar and Glaeser, 1998; Glaeser, 1998, van den Berg et al., 2001; Knoben and Oerlemans, 2006; Petruzzelli et al., 2007; Gittelman, 2007, Bell and Zaheer, 2007; Scott and Garofoli, 2007). Especially in the early stages of a relationship, when uncertainty and information need is high, geographical proximity is pivotal for trust building (Torre and Gilly, 2000; Malmberg and Maskell, 2002; Torre and Rallet, 2005; Knoben and Oerlemans, 2006; Santangelo and Narula, 2007). However, as I will discuss in the later sections, geographical proximity is not the only enabler of trust development; trust can be built through firm- and individual-level networks in the presence of cultural and organizational similarities (i.e. organizational proximities) (Bierly III and Gallagher, 2007).

Due to ease of trust building and convenience, SMEs show tendency to form partnerships with geographically proximate, i.e., local firms (Baird et al., 1994; Torre and Rallet, 2005). Research argues that the firms concentrated in a space, such as intra-urban IT clusters, benefit from urbanization and localization advantages. Hence, innovative SMEs tend to be located in clusters (Lawson et al., 1994; Meyer, 2006), and cluster members tend to interact with each other. Furthermore, geographical proximity decreases search, communication and transaction costs (McCann, 1995); cost minimization is an important motive for SMEs. Notwithstanding, empirical evidence indicates that as international markets grow, SMEs are no longer passive players; instead, they engage in activities beyond their home markets (Ruzzier et al., 2006; Wood
et al., 2009). Next two sections discuss the non-local partnerships in general and for SME context in particular.

2.5 Non-local Partnerships

Non-local partnerships are the collaborative schemes formed between geographically distant firms. In this setup, the partner might be located outside of the focal firm’s region, across the country or even beyond the national borders. Distant collaboration is more relevant to service industries compared to the others due to the characteristics of the services. In service industries (such as IT industry), main inputs are the intellectual property, technical skills, technical and managerial systems, which can be derived from knowledge-based resources. These inputs move quicker and less costly over distance, implying that the services are less bounded by location (Stuart and Sorenson, 2003).

On the other hand, IT services are constituted of more information-intensive, less physical actions; hence, they are less dependent on physical presence and location (de Laigle 2004; Mithas and Whitaker 2007). This nature enables disaggregation of a service into components via several methodologies like codification, standardization, and modularization (Mithas and Whitaker 2007). Afterwards, the disaggregated components can be delivered by multiple firms that might be located anywhere. As a result, these two characteristics decrease location boundedness for IT service provision. Therefore, the IT industry is a relevant context to study non-local partnerships.

Non-local partnerships can grant firms significant advantages in terms of growth and efficiency. For instance, global sourcing offers benefits such as cost saving, access to a larger skill pool, exploitation of follow-the-sun development, and compensation for lack of internal capabilities (Rao, 2004). Analogously, resource-constrained IT SMEs can utilize non-local
partnerships as a growth strategy. By tapping into a wider skill pool, they become less dependent on the local resources and can grow with lower investment in human resources. In addition, they can optimize costs by leveraging differentials across regions, especially through offshoring. Consequently, IT SMEs can become more competitive in a dynamic market.

Notwithstanding the above benefits, non-local partnerships entail unique challenges. Regardless of the type of interfirm relationship, there are organizational, cultural and cognitive distances between partners; non-local partnerships add the physical dimension. Additionally, in international partnerships, firms might face cultural differences (Heeks et al., 2001; Nicholson and Sahay, 2001; Carmel and Agarwal, 2001), language barriers (Carmel and Agarwal, 2001), technical complexities (Rao, 2004), and legal and security issues (Rao, 2004). These challenges might lead to immediate difficulties in task-related and contextual information exchange, and coordination (Rao, 2004; Cramton and Webber 2005; Carmel, 2006; Espinosa et al., 2007). Next section analyzes non-local partnerships in SME context.

2.6 Small and Medium-sized Firms’ Non-local Partnerships

Despite abovementioned challenges, empirical evidence indicates that SMEs are engaged in international activities; this “process of increasing involvement in international markets” is conceptualized as internationalization (Welch and Loustarinen, 1988). The scope of activities in internationalization context range from import/export relationships to alliances, international subsidies or joint ventures, trademark and/or licensing agreements (Hara and Kanai, 1994; Baird et al., 1994; Su and Poisson, 1998; Bell et al., 2004; Lu and Beamish, 2006; Nummela et al., 2006; Ruzzier et al., 2006; Wood et al., 2009; Ulubasoglu et al., 2009). The primary mode of internationalization is export/import relationships or foreign subsidiaries; these international endeavors are motivated by penetration or expansion into new markets either through reaching
new customers abroad or offering foreign products to domestic customers (Osborne and Hagedoorn 1997; Ulubasoglu et al., 2009; Wood et al., 2009). Therefore, these activities are contextually different than non-local IT service partnerships that are motivated by efficiency increase in a domestic service by utilizing non-local resources.

Research studies explore internationalization concept in alliance context in terms of partnership strategies, partner selection and influential factors (Baird et al., 1994; Bell et al., 2004; Hara and Kanai, 1994; Su and Poisson, 1998; Acedo and Florin, 2006; Lu and Beamish, 2006; Wood et al., 2009; Ulubasoglu et al., 2009). Some studies highlight firm-level factors, such as age (Acedo and Florin, 2006), size (Su and Poisson, 1998; Acedo and Florin, 2006; Ulubasoglu et al., 2009), experienced-based resources (Su and Poisson, 1998; Lu and Beamish, 2006), culture (Wood et al., 2009) and organizational capabilities (Baird et al., 1994; Weerawardena et al., 2007), as key success drivers. Others focus on founder / manager characteristics like international orientation of the decision maker or the entrepreneur (Bell et al., 1994; Acedo and Florin, 2006; Weerawardena et al., 2007; Ulubasoglu et al., 2009). Hara and Kanai (1994) identify social events as important mechanisms to find and select partners. Table IV summarizes these research studies.
<table>
<thead>
<tr>
<th>Study</th>
<th>Research Question</th>
<th>Method</th>
<th>Findings / Recommendations</th>
</tr>
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<tbody>
<tr>
<td>Baird et al. (1994)</td>
<td>What are the international strategies of SMEs? Are SMEs with international strategies different in size, age, type than other firms without?</td>
<td>Interviews and survey with 160 firms from multiple industries</td>
<td>• International small businesses build their strategy on patents or manufacturing capability</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Combination of exporting, alliances, and foreign investment</td>
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<td></td>
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<td></td>
<td>• International small firms need to develop organizational capabilities and resources</td>
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<tr>
<td>Hara &amp; Kanai (1994)</td>
<td>How should the entrepreneurial SMEs select international partners for strategic alliances? What are the models?</td>
<td>Case study on alliances between technology-based firms in Japan</td>
<td>• Three models of creating ties: random search mode, diplomatic mode, informal gatekeeper mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The key factor is a network of networks (gatekeeper), social events are important mechanisms to identify partners</td>
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<tr>
<td>Bell et al. (2004)</td>
<td>What is the linkage between business SMEs’ strategies and their processes and pace of internationalization?</td>
<td>Interviews with 30 key decision makers of SMEs in 3 UK regions</td>
<td>• Functional strategies and internal/external environmental factors influence firms’ international orientation</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Differences in patterns, processes and pace of internationalization between knowledge-intensive and traditional manufacturing firms</td>
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<tr>
<td>Acedo &amp; Florin (2006)</td>
<td>Why some SME leaders identify and pursue international expansion opportunities while others don’t?</td>
<td>Quantitative analysis, data from 222 Spanish SMEs</td>
<td>• Individual (international orientation of the decision maker or entrepreneur) and firm level factors (resources, experience and assets) influence indirectly entrepreneur’s risk perception associated with international expansion strategies</td>
</tr>
<tr>
<td>Lu &amp; Beamish (2006)</td>
<td>What is the impact of</td>
<td>Quantitative analysis, data</td>
<td>• Size- and experience based resources are associated with</td>
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<tr>
<td>Study</td>
<td>Research Question</td>
<td>Methodology</td>
<td>Key Findings</td>
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<tr>
<td>Weerawardena et al. (2007)</td>
<td>How can born-global entrepreneurial firms accelerate internationalization?</td>
<td>Framework development</td>
<td>- A set of dynamic capabilities that are built and nurtured by internationally-oriented entrepreneurs enable the firms to develop knowledge intensive products and accelerate the entry into international markets.</td>
</tr>
</tbody>
</table>
| Wood et al. (2009) | What are the key drivers of success in strategic global alliances? | Framework development | - Strategic drivers: alliance environment, global and regional opportunities, organizational culture  
- Tactical drivers: technology, financial assets, operational model congruence between SME and partner |
| Ulubasoglu et al. (2009) | What factors influence SMEs to form alliances with foreign capital? | Survey with 257 manufacturing firms in Turkey | - Size, sector and management specific factors are influential on alliance formation |
While contextually different, SMEs’ international endeavors support the argument that these firms form partnerships with non-local (domestic or international) IT firms. Most importantly, factors like organizational capabilities and founder / senior manager characteristics might facilitate formation of non-local service partnerships; nevertheless, the capabilities need to be conceptualized for this context. In later sections, I will discuss partnership capabilities and senior managers’ profile as enablers of this type of partnerships. Before this discussion, to be able identify specific capabilities, I elaborate SMEs’ partnership formation behavior in the next section.

2.7 Partnership Formation

In any contexts, partnership formation is a relationship development process, not a one-time decision or choice. Ring and van de Ven (1994) describe the partnerships as “socially contrived mechanisms for collective action which are continually shaped and restructured by actions and symbolic interpretations of the parties involved”. This definition underlines some properties of partnership formation such as the process orientation, joint actions of the partners, the social dimension and continuous reconstruction of a relationship. Adopting this perspective, I conceptualize IT service partnership formation as a process where the partners start structuring the relationship before the operational cooperation begins, and continuously reconstruct it in and out of the IT projects. Thus, the process of formation embraces multiple stages across partner search and selection, design of cooperation structure, negotiations of terms and conditions, commitments, and implementation of the cooperation in specific projects (Ring and van de Ven, 1994; Doz, 1996).

SMEs have an iterative and experimental approach to partnership formation (Larson, 1991). As opposed to their larger peers equipped with dedicated functions, established
procedures, and tools (Kale et al., 2002; Heimeriks and Duysters, 2007), these firms lack the necessary resources and infrastructure to form, control and manage interfirm relationships. Being more risk averse and cautious in interacting with their environment; their tendency is to react and experiment (Baird et al., 1994). Larson (1991) identifies two stages in SME partnership formation process: 1) trial, and 2) partnership. At the trial stage, SMEs experiment and attempt to build a relationship via accumulation of exchanges and evaluation of partner’s trustworthiness without considering the terms of the partnership. In this stage, with the repetition of incremental quid pro quo behaviors, the partners set the ground rules and establish credibility based on demonstrated performance and style of business conduct. Once reached to an expected level of trust, they proceed to the partnership stage. At this point, trust has been already established as a guiding foundation; cooperation between the partners becomes the operating mode. This stage is characterized by further trust development, strong commitment to preserve the partnership, extensive and frequent communication, and information exchange. In summary, SMEs build their partnerships as they are building trust to their partners, through a process driven by experiments.

2.8 Theoretical Foundation of Partnership Formation

The theoretical foundation of partnership formation is drawn on the large firm findings for innovation and R&D alliances. Two main theories, Transaction Cost Economics (TCE) and Resource-Based View (RBV) are utilized to explain the partnership formation behavior. The TCE theory, put forth by Oliver Williamson (1975), is the principal and earliest theoretical approach. The theory posits that firms tend to choose among the organizational modes, such as markets and hierarchies, for make-or-buy decisions to minimize transaction costs (Hagedoorn, 1993; Ring and van de Ven, 1994; Ireland et al., 2002). It is mostly applicable to the vertical
relationships between suppliers and buyers, the alliances set for efficiency gains and routine operations (Hagedoorn, 1993), and the outsourcing activities (Gallivan and Oh, 1999; Hancox and Hackney, 1999). Though widely used to explain economic phenomena, the TCE is criticized based on multiple perspectives. First, the theory focuses only on cost minimization and ignores value maximization in alliances (Gulati, 1998). Second, it concentrates in the interactions directly with the markets, instead of those between actors (Kern and Willcocks, 2000). Hence, it overlooks the relational aspects of interfirn cooperation. Therefore, the TCE lacks the power to explain the organizational behavior sufficiently (Eisenhardt and Schoonhoven, 1996; Barringer and Harrison, 2000; Todeva and Knoke, 2005; Lavie, 2006; Colombo, 2003), especially the SME behaviors.

Overlooked by the TCE’s premises, interfirn relationships are driven by strategic resource needs and social resource opportunities (Eisenhardt and Schoonhoven, 1996). This aspect is conceptualized by the RBV developed by Wernerfelt (1984, 1995), Barney (1991) and Grant (1991). In fact, the RBV is the most influential theory in the strategic management domain. Presenting an internal view, the theory analyzes the firm through a resource lens and characterizes it as bundled resources and assets, such as the property-based resources (e.g. financial capital, physical resources, human resources, patents, contracts, trademarks and copyrights) and the knowledge-based resources (e.g. tacit know-how, skills, capabilities, technical and managerial systems) (Das and Teng, 2000). Regardless of the type, the resources that are valuable, rare, non-imitable are found to increase a firm’s competitive advantage (Barney, 1991).

The RBV is a useful lens to study alliances because firms tend to form alliances to reach an optimal resource configuration (Eisenhardt and Schoonhoven, 1996; Das and Teng, 2000).
Firms with non-similar, non-redundant and distinctive resources are more likely to form an alliance (Das and Teng, 2000; Harrison, et al., 2001; Rothaermal and Deeds, 2006; Cantwell and Colombo, 2007). The alliances influence development of the value-creating resources or contribute to the resource homogeneity by facilitating exchanges between partners (Lavie, 2006). The alliances within the same industry are motivated by resource complementarities and economies of scale (Arora and Gambardella, 1990; Rothaermal and Deeds, 2006). Similarly, technological complementarity between partners encourages the formation of innovative technology alliances (Mowery et al., 1998; Fisher and Varga, 2002). Table V summarizes alliance formation studies rooted in the RBV theory.
### TABLE V. Resource- and Complementarity-based Alliance Formation Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Research Question</th>
<th>Method</th>
<th>Findings</th>
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</table>
| Eisenhardt & Schoonhoven (1996) | Why do firms form strategic alliances? How alliances are impacted throughout the market stages? | Structured interviews with CEOs of 98 semiconductor firms launched between 1978 and 1985 | - Rationales for alliance formation are strategic needs and social opportunities  
- These premises are held in high-velocity industries |
| Mowery et al. (1998)          | What is the relationship between technological overlap of partners and alliance formation? | Quantitative analysis, data on 151 JV involving 229 firms with at least one US partner | - Inverted U-shape relationship between technological overlap and alliance formation  
- Partners in technology-based alliances show greater technological overlap than partners in market-access alliances |
| Das & Teng (2000)             | What is the role of firm resources in strategic alliances?                          | Conceptual                                   | - Property-based vs. knowledge-based resources  
- Resources should be diverse, dissimilar and performing  
- Resource alignment: complementary, supplementary, surplus/slack, or wasteful |
| Harrison et al. (2001)        | What is the role of resource complementarity in alliances?                          | Conceptual                                   | Resource complementarity:  
- enables formation of alliances  
- leads to higher long term performance  
- facilitates organizational learning and new capability development |
<table>
<thead>
<tr>
<th>Authors</th>
<th>Question</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
</table>
| Fisher & Varga (2002)| To what extent likelihood of interfirm cooperation is conditioned by firm characteristics and their technological resources? | Survey with manufacturing firms in metropolitan Vienna                    | • Alliances are explorative and exploitive mechanisms set for knowledge transfer  
• Interfirm collaboration is the source for organizational learning and provides access to knowledge resources |
| Colombo, Grilli & Piva (2006) | What are the determinants of alliance formation for startups? | Econometric analysis, data from 552 Italian new tech firms in manufacturing and services industries between 1994-2003 | • Innovative high-tech small startups are more likely to establish alliances  
• Patent holdings has positive impact on likelihood of establishing commercial alliances  
• Social capital and endorsement by reputable organizations facilitate establishment of alliances |
| Rothaermal & Deeds (2006) | What is the relationship between alliance type and experience to alliance management capability for high-tech ventures? | Quantitative analysis, data on 2226 R&D alliances by 325 biotech firms | • Horizontal alliances between firms within the same industry are motivated by resource complementarities and economies of scale |
| Cantwell & Colombo (2007) | What is the impact of technological complementarity on interfirm cooperation in IT industry? | Quantitative analysis, data on cooperative agreements, 68 firms and 2278 pair-wise combinations in IT industry | • Firms with complementary technological capabilities are likely to enter into technology-based agreements  
• Non-complementary firms tend to use quasi-market arrangements such as licensing |
Another theory rooted in resource perspective is the Resource Dependency Theory (RDT) by Pfeffer and Salancik (1978); it examines the impact of power and resource control on organizational practices. RDT posits that all firms must engage in exchanges with their environment to obtain resources; this necessity creates dependencies between them and outside units (Boyd, 1990; Barringer and Harrison, 2000; Casciaro and Psikorski, 2005; Hillman et al., 2009; Davis and Cobb, 2010; Parmigiani, A., and Rivera-Santos, M. 2011). To absorb these constraints, firms employ various mechanisms such as interfirm relationships, joint ventures, mergers and acquisitions, boards of directors, political action and executive succession (Hillman et al., 2009). Some mechanisms aim to bypass the source of the constraint (e.g. reducing the interest in that resource, cultivating alternative sources, or forming coalitions) whereas others aim to restructure the dependencies (Casciaro and Psikorski, 2005). Mergers and acquisitions are the most complete form of absorption while interfirm relationships provide partial absorption (Parmigiani and Rivera-Santos, 2011).

According to RDT, firms form alliances to exert power or control over organizations that possess scarce resources (Pfeffer and Salancik, 1978; Barringer and Harrison, 2000; Hillman et al., 2009). It explains SMEs’ partnership formation behavior in general as these firms are more dependent to their environment in terms of resources. This dependency on partner’s resources might lead to lock-in and increase risks of exploitative or opportunistic behavior by larger partners. Thus, it is an appropriate lens to analyze risk and power concepts in SME partnerships (Barringer and Harrison, 2000). However, the theory fails to interpret the factors influencing the IT SMEs to choose non-local partners, specifically how these firms build trust and convenience over distance. Therefore, the theory does not shed light on the research questions in this study.
Resuming the discussion on two major theories, I argue that both TCE and RBV explain to a greater extent IT SMEs’ motivations to form service partnerships, e.g., access to niche, complementary, supplementary, or cost efficient resources, or cost minimization. However, they are not helpful to understand what makes some IT SMEs to engage in non-local partnerships whereas some others partner with local IT firms only. There are some aspects of the partnership phenomenon ignored by these theories as discussed below.

First, TCE focuses on cost minimization rather than value maximization in partnerships (Gulati, 1998), whereas the value creation to the customer is pivotal for the SMEs in service provision. Second, SMEs face intrinsic partnership costs related to search and selection, partnership assessment, management, and hazards endangered by the cooperation (Colombo et al., 2006) and, thus far, TCE considers only the transaction costs. Third, forming and maintaining a non-local partnership is more costly and demanding for the SMEs, compared to a local partnership. The SMEs engaged in non-local partnerships might have other properties or conditions that are not fully justified by the premises of TCE.

Just like TCE, RBV has gaps as well. The theory has a static view; it is not powerful to explain the partnership formation behavior in competitive, fast changing markets, such as high-technology industries (e.g. semiconductors, information and software services) (Teece et al., 1997; Eisenhardt and Martin, 2000). Moreover, partnerships require additional managerial resources to form, control and manage. Since SMEs are resource-constrained, they should possess relevant skills and capabilities to acquire a partner’s resources and integrate them into their service offerings. Thus, RBV’s perspective is not sufficient to explain partnership formation in the SME context. Table VI provides a concise evaluation TCE and RBV theories; i.e. their specifics from SMEs’ perspective and their limitations to address the research questions.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Key concepts</th>
<th>Sample studies</th>
<th>Specifics for SME context</th>
<th>Limitations in light of SME context</th>
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<tr>
<td>TCE</td>
<td>- Firms form partnerships to minimize transaction costs and achieve efficiency gains. - Markets, hierarchies and partnerships are the operating modes for make or buy decisions.</td>
<td>Non-SME specific: Gallivan &amp; Oh (1999); Hancox &amp; Hackney (1999); Kern &amp; Wilcocks (2000) SME specific: Weaver et al. (1997); Hoffmann &amp; Schlosser (2001)</td>
<td>- Cost minimization is crucial for SMEs’ survival and growth. - Cost minimization motivates non-local partnership formation, especially offshoring.</td>
<td>- TCE focuses on interactions with markets, ignores interfirm relationships. - TCE focuses on cost minimization instead of value maximization in alliances. - SMEs face additional costs in partnerships (such as search and selection); minimization of only transaction costs does not ensure cost efficiency.</td>
</tr>
<tr>
<td>RBV</td>
<td>- Firms engage in partnerships to tap into a broader resource pool and to complement/ supplement their resources - Some firm resources provide sustainable competitive advantage</td>
<td>Non-SME specific: Eisenhardt &amp; Schoenhoven (1996); Harrison, et al. (2001); Cantwell &amp; Colombo (2007) SME specific: Hoffmann &amp; Schlosser (2001); Colombo, Grilli &amp; Piva (2006)</td>
<td>- Partnerships offer additional complementary or supplementary resources for SMEs.</td>
<td>- RBV is not applicable in dynamic markets, e.g. IT industry. - Engagement in partnerships requires additional managerial resources; SMEs already have limitations. - Access to resources is necessary but not sufficient; SMEs should have capabilities to reap benefit from partner’s resources.</td>
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In response to RBV’s deficiency, Teece et al. (1997) introduce the *dynamic capabilities* perspective. Dynamic capabilities are defined as a firm’s organizational and managerial processes to develop, adapt, integrate and reconfigure internal and external resources and competencies to match changes in the market (Teece et al., 1997; Eisenhardt & Martin, 2000). These capabilities are the routines through which a firm learns from different internal and external sources such as the market, the networks and the learning that is mobilized internal to the firm itself (Weerawardena et al., 2007). Examples of these capabilities are strategic decision making, new product development, resource allocation, knowledge creation, acquisition and alliance processes. In moderate markets, firm’s dynamic capabilities are detailed, analytical, and similar to traditional routines since changes in the market are predictable and linear. On the contrary, in high-velocity markets characterized by high level of innovation, technological developments, and intense competition, changes are not predictable and linear. Due to this ambiguity, firms need to create and adopt context-specific capabilities. Thus, in this context, the capabilities become path-dependent in emergence and distinguished in detail; firms experientially and iteratively develop them (Teece et al., 1997; Eisenhardt & Martin, 2000).

Dynamic capabilities perspective is salient lens to analyze SMEs’ non-local partnership formation. On the one hand, the IT SMEs operate in a very competitive and fluctuating market, facing constant changes in customer requirements and technologies. To be competitive, these firms need to dynamically acquire and build new resources, and reconfigure and modify the existing ones. On the other hand, by nature, their approach to partnership formation is ad-hoc, experiential, iterative and provoked by emerging opportunities and needs. Arguing that this firm behavior cannot be portrayed using a static model like the RBV, I apply dynamic capabilities perspective to explore the phenomenon.
2.9 Facilitators of Non-local Information Technology Service Partnerships

To support the interactions between partners, non-local service partnerships require greater investments in the means of communication and coordination compared to local partnerships. For SMEs, dedicating additional resources to partnerships might not be feasible. Moreover, implementing virtual communication and coordination technologies without developing relevant in-house capabilities might not serve the purpose. As discussed in section 2.6, both SME internationalization (Baird et al., 1994; Weerawardena et al., 2007) and offshoring literature (Ranganathan and Balaji, 2007; Pagano, 2009) suggests that engaged firms should develop organizational and relational capabilities to mitigate the risks (Baird et al., 1994; Ranganathan and Balaji, 2007; Weerawardena et al., 2007). Therefore, I posit that firm’s organizational capabilities, rather than its resources, facilitate IT SMEs’ non-local partnership formation.

For SMEs, a significant challenge in non-local partnerships is to develop trust with a geographically-distant partner; as discussed in section 2.3 trust is pivotal for SMEs to govern their partnerships. To develop trust relatively easily and, thus, create convenience in this type of partnerships, SMEs should narrow the organizational distance with their partners. As mentioned in section 2.4, organizational proximities, such as shared values, norms and practices, provide quasi-proximity between the partners (Torre and Gilly, 2000; Torre and Rallet, 2005; Oerlemans and Meeus, 2005; Knoben and Oerlemans, 2006). Hence, this type of proximity is likely to substitute for the lack of geographical proximity in interfirm relationships.

As presented in section 2.6, SME internationalization literature suggests that international orientation of the senior managers or the entrepreneur influences the perception on risks associated with international activities positively. Thus, these firms are more likely to be
receptive to stimuli on international activities (Bell et al., 1994; Acedo and Florin, 2006; Weerawardena et al., 2007; Ulubasoglu et al., 2009). Based on these arguments, I argue that senior managers’ profile in terms of background and experience is influential on IT SMEs’ non-local partnership formation behavior.

Last but not the least, the literature underlines task characteristics as determinants of information processing, communication and cooperation within and among teams (Perrow, 1967; Rice, 1992; Maznevski and Chudoba, 2000). Some tasks necessitate physical presence and FTF interactions whereas some others can be remotely performed. Therefore, some types of IT services may facilitate formation of non-local partnerships. Each of these constructs is explained in detail in the following sections.

2.9.1 Partnership Capabilities

IT firms engaged in non-local partnerships encounter distance-related challenges in terms of partner search and selection, coordination, communication and knowledge exchange. Distance amplifies the issues in coordination and control directly or indirectly through its negative effects on the communication. In turn, these negative effects diminish the effectiveness of the coordination between partners (Carmel and Agarwal, 2001). Figure 1 illustrates these relationships.
In the collaborative software development context, Espinosa et al. (2007) identify three types of coordination requirements: technical, process and temporal. The sophistication of IT architectures or the multitude of applications calls for extensive integration efforts; technical coordination of these activities is crucial for coherent and seamless service provision. Process coordination necessitates that the partners should comply with established software development processes and proper configuration management. In collaborative service provision, the partners should perform according to a preset project schedule and comply with associated interdependencies. The temporal coordination is particularly significant for non-local partnerships due to the time zone differences and the asynchronous communication environment. Hence, IT firms willing to form non-local partnerships need to develop procedures, processes and skills to fulfill these coordination requirements and compensate the lack of geographical proximity with relevant organizational capabilities.
The alliance literature describes abovementioned organizational capability as the “ability to internalize alliance management knowledge acquired via interactions with other firms” (Eisenhardt and Martin, 2000; Kale et al., 2002). It is embedded in repetitive organizational routines to leverage firm’s resources in alliances, such as organizational structures, procedures, and processes related to interfirm relationships (Lorenzoni and Lipparini, 1999; Kale et al., 2002; Heimeriks, and Duysters 2007; Schreiner et al., 2009). Researchers identify this capability as a high-order resource difficult to obtain or imitate that ultimately increases the firm’s alliance performance (Heimeriks and Duysters, 2007).

Focusing on management of individual alliances, Schreiner et al. (2009) conceptualize alliance management capability as a multidimensional construct with three distinct dimensions: 1) **Coordination**, 2) **Communication**, and 3) **Bonding with the partner**. **Coordination** is the management of the dependencies among task activities (Espinosa et al., 2007). At the organizational level, it embraces the integration of each task to the overall project and afterwards orchestration of the integration activities across all business units (Carmel and Agarwal, 2001). Related activities are identification of the task requirements, specification of the working procedures for task execution, and determination of the roles and responsibilities in task execution for each partner (Espinosa et al., 2007; Schreiner et al., 2009). At a partnership level, the capability corresponds to integrating project tasks internally and between partners, solving interface problems, setting boundary spanning mechanisms, clarifying roles and responsibilities of each partner, and managing task execution.

**Communication** is the information and knowledge transmission between partners. Thus, the communication capability represents the skills to convey relevant knowledge and information between partners in a timely, accurate and complete manner (Schreiner et al., 2009). It includes
deploying a variety of formal and informal communication modes, choosing and adjusting them according to the context and content. This capability enables development of shared understanding on roles and responsibilities, construction of shared collaboration models, management of conflicts (Schreiner et al., 2009), and recognition and evaluation of risks and opportunities (Ring and van de Ven, 1994).

Finally, bonding represents the social integration between partners, at both individual- and firm-levels. Bonding capability embraces activities such as being proactively responsive to partners’ concerns and needs, remaining in frequent contact, and attending seriously to partner’s views, ideas, and circumstances (Schreiner et al., 2009). These activities facilitate establishing trust, knowledge sharing, and conflict resolution (Schreiner et al., 2009).

A firm’s alliance capability evolves with repeated practice and learning, and is developed through alliance experiences in the form of lessons learned and know-how (Kale et al., 2002; Rothaermal and Deeds, 2006; Heimeriks and Duysters, 2007; Ranganathan and Balaji, 2007; Kale and Singh, 2007; Kale and Singh, 2009; Schreiner et al., 2009). The alliance know-how is initially embedded in the minds of the individuals that are involved in alliances; afterwards, it becomes part of the organizational routines, the processes and the structures (Kale and Singh, 2007). This transformation from individual- to organizational-level occurs via organizational learning, defined as “improvements in the ability to anticipate and respond to contingencies which cannot be forecasted in advance” (Anand and Khanna, 2000).

Learning is a cumulative and path-dependent process where each step augments firm’s knowledge; this process occurs in internationalization context as well (Johanson and Vahlne, 2003). Learning process consists of the articulation, codification and exchange phases (Kale and Singh, 2007). Articulation externalizes individually-held knowledge. At codification, firms
create artifacts based on this articulated know-how, such as alliance documents, guidelines, and manuals. Afterwards, this tacit or explicit knowledge is exchanged and disseminated between partners through interactions. The more the firms engage in partnerships, the more they learn and excel in relevant routines and processes. Based on these arguments, this evolving capability paradigm can be adapted to non-local partnership formation.

Our knowledge on alliance capabilities, its antecedents and the mechanisms to develop these capabilities is shaped by research on larger firms; we do not know how these capabilities unfold in the SME context. The role of alliance capabilities in distant cooperation is understudied as well. In internationalization context, Baird et al. (1994) underline the impact of organizational capabilities on risk mitigation. Similarly, Pagano (2009) discusses relational capabilities in global supply networks, such as awareness on cross-cultural business practices, management of international lead-time risk and uncertainty, knowledge on location, and international negotiation skills. In offshoring context, Ranganathan and Balaji (2007) refer to the outsourcing firm’s capabilities in four categories: (1) global information systems (IS) vendor management (vendor selection, contract facilitation, and relationship governance), (2) systemic thinking (capability to strategize and offshore readiness), (3) global IS resource management (HR, knowledge and distributed work management), and (4) IS change management (user and organizational change). Drawing insights from these conceptual studies, this research empirically explores the role of the capabilities in distant cooperation.

2.9.2 Organizational Proximities

The geographical proximity is not the only dimension of the proximity construct that facilitates knowledge transfer, innovation, joint value creation and trust development. As one of the dimensions of the proximity construct, organizational proximity is defined as “belonging to
the same space of references” and manifested by shared representations, norms, standards and work practices (Torre and Gilly, 2000; Torre and Rallet, 2005; Oerlemans and Meeus, 2005; Knoben and Oerlemans, 2006). This proximity can be created through firm- and individual-level social networks (Torre and Rallet, 2005; Bierly III and Gallagher, 2007) such as communities of practice, associations, user groups, and reseller or vendor platforms (for example Microsoft partnership program). Being a member of these networks, the firms build trust easier with other members, even with the geographically distant or indirect ties, compared to the outsiders (Hagedoorn et al., 2009). Hence shared networks offer convenient platforms to facilitate and foster interfirm relationships for SMEs. If these networks span regional and national boundaries, SMEs have greater opportunities to seek, find and interact with non-local partners.

SME networks are comprised of overlapping networks of their founders and the employees (Shaw, 2006). In SMEs, the decision to engage in alliances is a function of founders and senior managers having confidence and trust in partners or in information source about partners (BarNir and Smith, 2002). Hence, senior managers heavily rely on their networks to search for or validate a partner. For resource-constrained SMEs, these networks represent valuable sources of information and potential partners, and facilitate formation of partnerships. Depending on the senior managers’ background (such as profession, experience, nationality) their professional or personal networks might geographically cover other regions in the US or nations. Providing organizational proximity between distant IT firms, we expect these interregional or international networks can facilitate non-local partnership formation.

2.9.3 Senior Managers’ Characteristics

The management literature posits that a firm’s strategic choices and behaviors, including those on alliances, are reflections of senior managers’ orientations, background and perceptions
(Hambrick and Mason, 1984; Tyler and Steensma, 1998; Carpenter et al., 2004; Pansiri, 2005). Their ethnic or cultural backgrounds and values influence their strategic orientations, thus, the firm’s choices (Weaver et al., 1997; Ruzzier et al., 2006). Particularly for the SMEs, senior managers’ or founders’ orientations shape the organizational practices substantially (van Gils and Zwart, 2009), including partnership formation. As discussed in section 2.6, the internationalization literature presents similar findings (Bell et al., 1994; Acedo and Florin, 2006; Weerawardena et al., 2007; Ulubasoglu et al., 2009). Therefore, I expect that IT SMEs with founders/ senior managers experienced in distant cooperation show greater tendency to form non-local service partnerships.

Research posits that partnership experience with the same partner contributes more to organizational learning. Repetitive partnerships with the same firm unfold in the same context; this specific context provides a consistent learning environment for firms to accumulate knowledge (Gulati et al., 2009). However, due to fewer numbers of projects, the IT SMEs are not frequently engaged in non-local service partnerships. Therefore, they rely more on their founders’ and senior managers’ previous experiences. When the need arises, these individual experiences are transformed to the organizational level and assist SMEs in developing relevant capabilities. I posit that in SME context, senior managers or founders play a crucial role in organizational learning and capability development.

2.9.4 Information Technology Service Characteristics

The nature of the IT service or task rendered via the partnership shapes the service provision; thus, it affects the way the partners cooperate and communicate with each other. A task can be characterized using various dimensions. For instance, Perrow (1967) identifies task characteristics as analyzability and routineness. Analyzability is the extent of the predetermined
responses for known problems. Analyzable tasks are defined by well-known procedures; there is abundant information available to solve the problems, and outcomes of the task are well understood by the parties involved (Rice, 1992). On the contrary, the unanalyzable tasks are open to improvisations and creative solutions; they are less predictable and linear to be predetermined in the policies and the procedures. Information processing for the analyzable tasks necessitates lean media, whereas the unanalyzable tasks require rich media (such as FTF) to convey rich information (Rice, 1992). Another classification is based on the task properties like strategic scope, importance, ambiguity, complexity and interdependency (Maznevski and Chudoba, 2000).

The abovementioned characteristics are generic for any type of tasks. In specifics, Zaheer et al. (2009) present a typology for the IT-enabled services (ITES). These services are not limited to the IT industry; the term ITES captures a wide range of services (e.g. payroll transaction, insurance and mortgage processing, tax preparation, medical services, animation development, engineering and design services, software services, customer services, and online helpdesks). The common characteristic of these services is that they are IT-enabled and can be remotely performed. Hence, they are good candidates for non-local service provision, e.g. offshoring (Zaheer et al., 2009). Since, this typology describes the nature of IT services more precisely compared to other classifications, I adapt it to characterize different types of IT services.

Zaheer et al.’s (2009) typology is based on two knowledge characteristics: system vs. people-intensiveness, and routineness vs. creativity. System intensiveness is attributed to a significant level of process automation, which facilitates remote execution and monitoring of an IT service. The system-intensive IT services can be rendered by IT firms located anywhere. For partnerships, the distance between partners does not pose a limitation on the service provision.
As a result, this nature diminishes the boundedness to location and the role of geographical proximity between partners; hence, it facilitates formation of non-local partnerships. Examples are, data processing, hosting and network administration processes.

Conversely, with people-intensive services, the degree of automation is relatively lower. The provision of these services necessitates interpersonal interactions, specialized skills, and application of knowledge, intuition and judgment. These services are subcategorized into two groups: people-intensive routine services and people-intensive creative services. The routine or repetitive services can be described in abstract and standard forms, and codified as in standard operating procedures; service provisioning often comprises the execution of scripts. Due to the clear procedural structure, there is limited ambiguity. These services can be delegated, exchanged, and transferred easily between partners, or rendered remotely. Partners do not need to interact frequently during service provisioning, and management of interactions is not complicated. Examples are Call Center operations, technical support, user helpdesk and application testing.

On the contrary, people-intensive creative services, such as business analysis, user interface design, custom development and IT consulting, involve specialized knowledge, expertise, judgment and improvisation. Interactions between partners are dense, especially at the early stages of the partnership. Because of the creative nature of the service, there is substantial ambiguity and uncertainty. Knowledge and information exchange between partners requires rich media like FTF contacts, which transmits the rich feedback essential for the creative work (Daft and Lengel, 1986). Therefore, the firms providing these IT services tend to choose local partners. However, empirical findings indicate that some IT SMEs have engaged in non-local partnerships for people-intensive and creative IT services as well. These findings imply the existence of other
influential factors, such as capabilities and organizational proximities. Table VII illustrates Zaheer et al.’s (2009) typology.

**TABLE VII. Typology of IT Services (Adapted from Zaheer et al., 2009)**

<table>
<thead>
<tr>
<th>Description of IT services</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data digitization, data processing, data conversion, data center operations</td>
<td>System-intensive and routine</td>
</tr>
<tr>
<td>Network maintenance</td>
<td></td>
</tr>
<tr>
<td>Web hosting</td>
<td></td>
</tr>
<tr>
<td>VoIP solutions</td>
<td></td>
</tr>
<tr>
<td>Facility management</td>
<td></td>
</tr>
<tr>
<td>Call center, technical support, user helpdesk</td>
<td>People-intensive and routine</td>
</tr>
<tr>
<td>Application testing</td>
<td></td>
</tr>
<tr>
<td>Software/ application analysis, design, development, integration, implementation, maintenance</td>
<td>People-intensive and creative</td>
</tr>
<tr>
<td>Network design and implementation</td>
<td></td>
</tr>
<tr>
<td>Animation development</td>
<td></td>
</tr>
<tr>
<td>IT consulting</td>
<td></td>
</tr>
<tr>
<td>IT project management</td>
<td></td>
</tr>
</tbody>
</table>

To summarize the theoretical foundation, the friction of distance impedes trust building and effective cooperation in a partnership (Rao, 2004). In order to minimize this friction, the IT SMEs willing to form non-local partnerships need to substitute for the lack of the geographical proximity to partners with abovementioned factors. As discussed in the previous sections, there are gaps in the literature that to not address this phenomenon. Integrating trust, proximity and capability concepts, this exploratory research study analyzes the facilitators and their roles in non-local partnership formation. Next sections present the research methodology for the empirical study.
3 METHODS

This section discusses the research design and the methods to explore IT SMEs’ non-local partnership formation phenomenon. By design, this research is an exploratory field study conducted to analyze the relationships between the focal constructs rather than claiming causality. The aim is to fill the gaps in the literature as previously addressed and provide the basis for theory development. The research questions and the literature review provide guidance to explore in-depth relationships between the constructs rather than testing any correlations. Langley et al. (1995) claim that the decision is a construct in the eye of the observer, which might not be measured properly via quantitative manifestation. A qualitative approach enables gathering the context-rich data and reflecting that richness in theory building effectively (Miles, and Huberman 1994). Thus, I have employed this approach in this research.

The population of the study includes SMEs active in various IT industry segments, such as IT consulting, software development, network and hardware services and IT operations. To characterize SMEs, there are different thresholds in terms of employee size. The Office of Advocacy of the US SBA identifies the SMEs based on either the number of employees or the average annual receipts for each industry.10 According to these standards, maximum employee size differs between 100 – 500 employees depending on the industry; for example, the latter is the maximum number for manufacturing firms. For IT industry (such as computer programming, data processing and systems design), the firm size is determined in terms of the annual revenue ($25 million). Since the revenues are confidential for the privately-held SMEs; I adopted the European Commission for Enterprise and Industry’s approach based on the number of

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employees. This typology classifies the firms with less than ten employees as micro, 11 – 50 employees as small, and 51 – 250 employees as medium. Thus, I focused on the IT firms with less than 250 employees.

In order to control for economic, social, and cultural contexts in which firms operate, the spatial setting of the study is constrained to a single geographical region. For any kind of collaborative arrangements, urban settings like cities or metropolitan areas provide the space and the socio-cultural structure for networking and cooperation. Their character is derived from the operational economic structure, the accumulated talent, the localized diffusion of knowledge, the social needs and its reproduction, and the regulations by the government and the civil associations (Scott and Garofoli, 2007; Scott, 2008). Hence, these settings offer a reservoir of resources and competitive advantages for individuals, firms, industries and institutions (Scott and Garofoli, 2007). Previous research found that IT firms are generally located in the metropolitan areas where economic activity is dense (Parker, 2001; Meyer, 2006). Likewise, service firms (especially SMEs) tend to be located in the cities and the metropolitan areas where they benefit from geographical and organizational proximities. For example, via interfirm interactions they become aware of changes and fluctuations ahead of the time and are able to develop effective strategies to cope with uncertainties. Therefore, the urban setting is an appropriate scale to study SMEs’ partnerships.

I choose Chicago Metropolitan Area because it is an urban setting with diverse economic activities, a significant demand for IT services and a large number of SMEs in the IT industry. According to Koval et al. (2006), Chicago is the most studied American city in social and urban studies, and it is considered to be representative of most American cities. The city was born out of an industrial urban setting with the largest industrial labor force of any city in the US. When

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the industrial era ended in the 1960s, Chicago experienced a transition from a traditional, manufacturing-dominated industrial structure to a service-driven economy embracing highly sophisticated manufacturing activities (Markusen, 1996; Sohn et al., 2002; Sohn et al., 2003, Koval et al., 2006). This shift led to a higher demand on IT services (Sohn et al., 2002, 2003). Additionally, Chicago’s geographical location in the heart of the Midwest has made it a transportation hub through shipping routes (through the Great Lakes and Mississippi River waterway system), railways, interstate systems, and airline traffic (Glaeser, 1998; Mohey, 2006). As a transportation hub, the city enables access outside of the Midwest and the US; this is an important advantage for Chicago firms when forming partnerships with distant partners.

There is no hallmark industry in Chicago; it has the most diverse urban economy with a large number of highly concentrated industries such as logistics, transportation, publishing and printing, retail, distribution, financial and business services. The density of knowledge- or technology-intensive industries creates an extended demand for IT services. On the supply side, Chicago has the largest concentration of high-tech workers and the greatest number of IT jobs available in any US urban region (Mohey, 2006). According to the SBA statistics as of March 2006, in the Chicago-Naperville-Joliet (IL-IN-WI) Metropolitan Statistical Area, SMEs corresponded to 98% of total firms and 48.5% of total employees.\(^\text{12}\) In the same region, there were approximately 2600 SMEs active in the IT\(^\text{13}\) as of March 2005.\(^\text{14}\) On the other hand, the May 2008 analysis of the occupational data released by the Bureau of Labor Statistics indicated that the IT workforce in Chicago represents 3.58% of the national IT workforce. The percentage of the IT workforce to the total labor in the Chicago area was higher than the national

\(^{12}\) Source: [http://www.sba.gov/advo/research/data_stmsapdf.xls](http://www.sba.gov/advo/research/data_stmsapdf.xls)

\(^{13}\) Information industry (code 51) as defined in North American Industry Classification System (NAICS), [http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart_code=51&search=2007%20NAICS%20Search](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart_code=51&search=2007%20NAICS%20Search)

\(^{14}\) Source: [http://www.sba.gov/advo/research/msa_05.txt](http://www.sba.gov/advo/research/msa_05.txt)
percentage, 2.82% and 2.63% respectively\textsuperscript{15}. Thus, though it is not a distinguished IT region like the Silicon Valley, the Chicago Metropolitan Area is a center of IT services and activities. With all these features, Chicago is a representative context and a unique setting for this research study.

Data collection and analysis is planned in two consecutive qualitative phases: (1) exploratory interviews, and (2) multiple case studies. The objectives of the first phase are threefold. First, data gathered during this phase increases our understanding on the dynamics of SMEs’ partnerships in the IT industry. Second, the exploratory interviews provide opportunity to acquire expert opinion from the IT industry and to align the research with field terminology; this feedback increases content and face validity of the constructs. Third, the findings serve to develop a priori research framework and the case study protocol, which set the basis for the case study. In the second part of data collection, the objective is to analyze the constructs or themes emerged in the first phase, to extensively explore the relationships between them, and ultimately to develop a research framework and propositions. For this purpose, I conduct a case study approach to gather rich data on IT SME non-local service partnerships.

\textsuperscript{15} Source: \url{http://www.bls.gov/oes/oes_dl.htm#Time}
4 EXPLORATORY INTERVIEWS

As described earlier, the objective of the first phase is to become familiar with the field terminology and practices on SME partnerships in the IT industry. In particular, the aim is identification of partnership types formed by the IT SMEs and the factors influencing them to cooperate with local or non-local IT firms. At this phase, the focus is firm’s partnership strategies and choices; hence, the unit of analysis is the firm. The following sections discuss the details of the empirical study in terms of selection and recruitment techniques, the interview instrument, interview and data analysis procedures, and present the findings of the qualitative analysis.

4.1 Recruitment

Firm behavior is best reflected by the opinions of the senior executives responsible for strategy development and implementation; there is no perfect proxy or secondary data on firm behavior (Schreiner et al., 2009). Thus, I relied on key informants’ opinions to collect firm-level data. Data were collected via semi-structured interviews with Chicago IT SMEs’ senior managers fulfilling two criteria: (1) the possession of sufficient knowledge on the firm’s partnership strategies and the behavior, and (2) adequate involvement in firm’s partnership activities.

The selection strategy was purposive, rather than stratified or random. Driven by the qualitative approach, main goal was not to achieve the generalizability of the findings, but to reflect the breadth of the segments in the IT industry. Selection of the participants was emerging in execution due to the ease of access to several technology groups.
The participants were recruited via personal and professional networks (Chicago Technology Network, Technology Leaders Association in LinkedIn, Tech Cocktail) and local technology associations (Illinois Technology Association (ITA), Society for Information Management (SIM)). Through group e-mails and periodic announcements on social networking sites, I invited senior managers to participate to the study. To capture the variety across partnership schemes, I did not limit the participation based on a certain type. Consequently, the sample covered a variety of partnerships established for different purposes, e.g., service provision, referral, reseller, and marketing. Once the participant agreed to be interviewed, I validated the firm according to the sample criteria, including size, industry and location and interviewed those that met the design criteria.

The recruitment strategy had a limitation at the onset: Since it was based on invitation via general announcements, the process was not fully in control of the researcher. Thus, initially I expected that some IT segments would be underrepresented. Here, the concern was that this underrepresentation might limit the ability to capture the heterogeneity of the IT industry. Ultimately the sample was diverse enough to reflect various firm and segment characteristics. The distribution of the participant firms is represented in the next section.

4.2 Demographics

In total, 21 interviews were conducted. During the interviews, two cases were identified as unqualified even though pre-interview communication suggested the contrary; these cases were eliminated. As the interviews unfold and detailed information were gathered, two other IT consulting firms were further eliminated because of their unique businesses: one of them mainly evaluated content management software and the other one was solely serving to the governments. As a result, there were 17 interviews to be analyzed. One of the participants had a
presence in Chicago for business development, but its decision making base was in another city, Ann Arbor, closer to Chicago. Since the firm was operating and building relationships in Chicago, I chose to include it into the sample.

Ultimately, the sample contained 17 IT firms (four micro, eight small and five medium-sized firms), being the oldest established in 1981. The majority of the firms were active in software development and IT consulting (nine and three respectively). Four other firms provided IT operations, IT infrastructure and security services; one firm acted as a full IT service provider for both software development and infrastructure services. All of the firms were headquartered in Chicago except one that had presence in both Chicago and Ann Arbor. Tables VIII a and b summarizes sample firms’ demographics; Appendix A presents detailed firm-level characteristics. In terms of participant demographics, out of 17, 12 of the interviewees were founders of the firms and still in active duty, whereas five of them held executive positions only. Fifteen interviewees were male and two female.

TABLE VIII a. Participating Firms by Size

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>4</td>
</tr>
<tr>
<td>Small</td>
<td>8</td>
</tr>
<tr>
<td>Medium</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>
TABLE VIII b. Participating Firms by IT Segment

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software development</td>
<td>9</td>
</tr>
<tr>
<td>ERP and Microsoft</td>
<td>1</td>
</tr>
<tr>
<td>Custom software</td>
<td>5</td>
</tr>
<tr>
<td>Web applications</td>
<td>1</td>
</tr>
<tr>
<td>SaaS(^{16})</td>
<td>1</td>
</tr>
<tr>
<td>Desktop applications</td>
<td>1</td>
</tr>
<tr>
<td>IT Infrastructure</td>
<td>1</td>
</tr>
<tr>
<td>IT Infrastructure and Software Development</td>
<td>1</td>
</tr>
<tr>
<td>IT operations</td>
<td>2</td>
</tr>
<tr>
<td>IT Security and Compliance</td>
<td>1</td>
</tr>
<tr>
<td>IT consulting</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>

### 4.3 Interview Instrument

For data collection, I developed a semi-structured interview protocol in accordance with the qualitative data collection principles such as interviewing approach, phrasing and sequencing of questions, probes and follow-up questions, and helping the respondents develop information (Weiss, 1994; Patton, 2002). While designing the protocol, the multiple objectives of the study were taken into account: to capture the field terminology and practices on partnerships between IT firms, to highlight the role of partnerships for the SMEs and to explore SMEs’ non-local partnership experiences across firm characteristics such as size, age and segment.

The interview protocol consisted of three sections. The first section contained questions on firm identity (e.g. size, age, location, services or products offered), perceived competitive advantage, and customer information in terms of industry and location. The second section

\(^{16}\) Software as a Service
inquired SME partnership concepts, such as definition, types, and role of partnerships in the IT industry in general and for the firm in particular. The third section asked open-ended questions on the firm’s partnership choices and the practices in terms of IT service provisioning. A particular emphasis was placed on (1) the choice between local and non-local partnerships, (2) the challenges experienced in non-local partnerships, (3) how firm overcomes these challenges, and (4) other enablers of non-local partnership formation. During the interviews, the participants were probed to understand whether the location mattered for their partnerships and if so, why it mattered. In order to clarify possible special timing effects, I asked the impact of the current economic crisis on firm’s partnership strategies and practices. Finally, the participants were required to assess their location from a business perspective (i.e., the advantages and disadvantages of being located in Chicago) in order to comprehend the impact of the context on their partnership decisions. The interview protocol is presented in Appendix B.

4.4 Interview Procedure

The participants were sent the interview protocol and the informed consent in advance. Upon their agreement to participate, they were contacted to set the timeline for an interview. Although not required, some of them filled the interview protocol and sent back to the researcher before the interview; these documents were utilized as supplements. Before the interviews, I reviewed publicly available information on the firm published on corporate web pages, LinkedIn and Facebook profiles, and news databases. Usually the information from these sources were limited or aimed for marketing. Hence, during the interviews, the participants were required to provide detailed information on their firms.

The interviews were conducted according to the interviewing guidelines detailed in Weiss (1994) and Patton (2002). All interviews except one were held on the phone as per the
participants’ preference; one of them was held at the participant’s office. The interviews were digitally recorded. One of the interviews could not be retrieved due to the recorder’s malfunction; its analysis was performed based on the interview notes. The recorded interviews were transcribed verbatim for analysis and archival purposes; one of the interviews could be partially transcribed due to background noise. One interview was conducted in Turkish because both the interviewee and the interviewer were native speakers; this interview was not translated into English, but transcribed and used for analysis only. Following each interview, company information and interview notes were converted into a brief case opinion (Patton 2002).

4.5 Data Analysis Procedure

The case opinions and notes, the interview transcripts, and the firm information derived from publicly available sources were utilized for qualitative data analysis. Data analysis was performed in a qualitative manner according to the principles and procedures detailed by Miles and Huberman (1994) and Patton (2002). As suggested, a preliminary coding scheme was created based on the key constructs and questions in the interview protocol. After having coded the first few interviews, some existing codes converged and some new codes emerged; hence, the coding scheme was modified accordingly. Following the first round of coding, the interview transcripts were reviewed for a content analysis in order to identify both individual and common patterns, themes and outliers. Matrix analysis revealed further convergences and divergences across the codes. Consequently, existing codes were reclassified or merged, or new codes were created. Afterwards, the coding of each case was reevaluated for internal consistency in line with the reduced and modified coding scheme. Appendix C presents the final codebook. This coding
technique is similar to factor analysis, and the aim is to reduce the number of factors, or groups of codes for further analysis (Miles and Huberman, 1994).

The literature suggests that depending on the research question and the phenomenon studied, each case can be mapped by either variables or events (Miles and Huberman, 1994). The event-based maps are process oriented, temporal and much powerful than variable-oriented maps to describe a decision making process. This research study explores a decision making scheme on partnership choices, both the variable (i.e. factors influencing the choice) and the process (i.e. partnership formation) components are significant. Therefore, as a supplemental analysis, I adapted a mixture of process- and variable-based approaches. For each firm, I created a conceptual map depicting partnership decisions for each firm. These maps were individually analyzed to identify the factors influencing the partnership choices. Samples maps are presented in Appendix D.

The analysis of the conceptual maps and the coded texts highlighted the commonalities and the differences in terms of firm’s partnership choices. Common patterns were drawn across the firms; these patterns represent the basis of the research framework. The analysis pointed out two outlier firms, which avoided entering into any kind of partnerships. These negative cases were analyzed separately for alternative explanations (Patton, 2002). I utilized qualitative analysis software, NVivo 8, for the coding and the detailed analysis.

4.6 Findings

In parallel to the objectives, the findings can be grouped into two parts. The first part sets the stage and uncovers the context surrounding SME IT partnerships in terms of definition, motivation, types, and associated terminology. Capturing this contextual information enables us to perceive IT SMEs’ decision environment better and to analyze the firm choices more
effectively. The second part presents the findings on the location choices. This part of the analysis depicts firms’ partnership choices, challenges and enablers of non-local partnerships.

4.6.1 Partnerships in Small- and Medium-sized Firm Context

4.6.1.1. Partnership Definition

In order to capture the field terminology, the participants were asked about their own perception of IT partnerships, rather than being given a definition. The responses reflected that the term “partnership” embraced a broad range of cooperative and collaborative arrangements, being formal or informal, unstructured or contract-based. Regardless of the structure, the partnership concept comprised of the aspects such as mutual benefits, service and resource complementarity, business lead exchange, and referrals. The agreed upon definition was that a partnership is a “mutually beneficial relationship between two IT firms that provide related, complementary but not the same services or products.” This conceptualization is in line with the definitions in the literature (Osborn and Hagedoorn, 1997; Ahuja, 2000; Street and Cameron, 2007), as discussed in section 2.1.

Technically for us, a partnership would be when we create a relationship with a company that does something that is related but not the same and we exchange projects or we exchange leads or it is mostly like referral partnership and combining to provide a better service to a client either for sales or a project.

Participant 3

However, not all interfirm relationships were classified as partnerships. The participants excluded some partnership types; one of them was outsourcing relationships between two IT firms. Just like any other firm, some IT firms outsourced their internal IT functions (such as helpdesk, hosting or data center services) to external service providers. In this scheme, the outsourced party provided the service directly to the focal firm, not to a customer. The
participants characterized these relationships as buyer-vendor relationships rather than partnerships.

We do outsource some internal IT functions to service providers. But I don’t consider them partnerships. I consider that as buyer-vendor relationships. Also we do outsource our hosting of our corporate e-mail for example, we have a telecom network we obviously give it a telecom provider. So, those are the things about outsourcing without having a partnership, that more as a vendor relationship. **Participant 7**

Likewise, utilizing generic IT products or services within the firm (such as Gmail as corporate e-mail services or GoogleDocs as corporate document repository) was not considered as a partnership with Google. On the other hand, if the firm integrated its services with GoogleDocs or utilized Google APIs to provide service to the market, and created additional value for their customers, that would be classified as a partnership with Google. Just getting the email from Google is not a partnership, you may have it in a partnership if we want to port Google document management platform at some point. **Participant 16**

In compliance with the field terminology, I excluded outsourcing relationships or any other interfirm relationship where the customer was not involved, from further analysis.

**4.6.1.2. Partnership Motivation**

Data analysis revealed that service partnerships were common and indispensable in the SME world. Only two of the 17 firms we investigated reported no partnerships. Via partnerships, SMEs stayed focused on their core capabilities and specialization while still offering customers a broad range of services.

That’s the value of partnership too is that we can be very focused, committed, the customer tends to reward that. **Participant 10**

The participants listed several partnerships motivations such as resource- or competency-oriented (e.g. access, exchange, transfer and pooling of resources), efficiency-oriented (e.g.
minimization of personnel costs), and strategic positioning-oriented purposes (e.g. business development) (Colombo, 2003). By accessing partners’ resources, the firms could expand their limited resource base, either by qualification or quantity, and complement their services and capabilities. For example, in software development and IT consulting domains, service provisioning necessitated a gamut of development technologies and paradigms that required different development, design or analysis skill sets. When this expertise was not developed internally, firms formed partnerships with other IT firms to supplement their teams. Likewise, for IT operations and infrastructure firms, when a higher level specialization (e.g. security) was required, the firms cooperated with IT firms providing this service. Thus, via partnerships, the SMEs could act as the main service provider of the customer and enhance the depth, breadth, and quality of their service offerings. These findings comply with RBV’s premises.

Another motivation reported was minimization of personnel costs which is in line with TCE. The participants characterized the partnerships as vehicles to manage the resources through peak and valleys. Especially in a fluctuating economy, where demand was difficult to forecast, partnerships and subcontracting offered firms the flexibility to access the “right talent” at the “right time” and on-demand (Participant 14). Thus, instead of investing in the human resources and carrying the idle capacity on payroll during off-times, the firms utilized partnerships and thus, minimized their costs.

Last, but not the least, the SMEs considered partners as additional sales and marketing channels. The partners offering complementary products and services supported each other in new business generation, referring customers to each other and marketing their services together. To a certain extent, these findings reflect RBV’s propositions. Hence, findings provided further
Table IX summarizes the findings on IT SME partnership motivation.

**TABLE IX. IT SME Partnership Motivation**

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Purpose</th>
<th>Sample Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resource- or Competency-oriented</strong></td>
<td>Service/Talent Complementarity</td>
<td>We look at our partner strategies as far as technology partners. So we have partnerships with Microsoft obviously, we have partnerships with Adobe from XXXs, we only use other partners or subcontracting firms if we need an area of expertise that we don’t have internally. [ ] Let me give you an example. Like XXX [the firm] might be doing a software development, Flashpoint integration project for a customer and they might need some Oracle expertise. We don’t have that internally. So we go to a partner and ask for an Oracle resource to supplement our team. Participant 6 We also use other partners for like you would expect for delivering specialized skills in certain areas. So we might have something like some very important specialty that is necessary you know what state is an influence engine is needed, knowledge of that influence engine technology that might be something you might reach out to a, one of the people that we work with us and look for some talent that help us supplement the team. Participant 17</td>
</tr>
<tr>
<td></td>
<td>Enhanced Service Offerings</td>
<td>There we want to make sure we can offer going to a prospect. So for instance working at a company in Houston, that company had a need to develop a custom ERP software package for the business. We are not software developers, but I am not going to tell that client or that prospect, “No we can’t help you”, I am going to bring in a partner that we worked with or we trust. Participant 14</td>
</tr>
<tr>
<td>Efficiency-oriented</td>
<td>Peak and Valley Management (Resource Management)</td>
<td>Because work is especially in this economy has a lot of ups and downs. Unless like you can always put people to work, you are in some cases, in some projects depending on skill set, you might be better off just contracting that resource. And when the project</td>
</tr>
</tbody>
</table>
is over, they go back to their virtual company which makes is a lot of easier if you can’t find them next piece of work for any reason. **Participant 12**

It gives us the ability to always have access to up-talent, the right talent at the right time. Generally speaking that gives us ability to find price points, to look at the companies that are willing to work at different price points. That gives us a lot of flexibility not having to carry the bench, we don’t have to be using our bench to define our business delivery. **Participant 14**

<table>
<thead>
<tr>
<th>Strategic positioning-oriented</th>
<th>Business Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>But in general if use small team partnering, we do that for generating marketing purposes to increase a number of channels that we have, to increase a number of exposure to be channeled with other companies that specialized in those channels. <strong>Participant 17</strong></td>
<td></td>
</tr>
</tbody>
</table>

### 4.6.1.3 Partnership Type

The interviews highlight two main partnership types that can be associated to two main motivation categories from literature: 1) Strategic positioning-oriented partnerships, and 2) Resource- or efficiency-oriented partnerships. Main distinction between these categories was the extent of immediate and direct financial exchange between partners.

Strategic positioning-oriented partnerships were formed for business development purposes to expand firm’s sales and marketing channels, these were identified as *marketing* or *referral partnerships*. In marketing partnerships, the partners co-branded their service offerings whereas in referral partnerships they recommended each other to customers and assisted generating new business. Both partnership types were informally structured and did not include immediate and direct financial exchange between partners. In both partnerships, there was no joint service provision to the market; instead each partner continued serving its own customers.

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17 Industry terminology
The participants did not deem marketing partnerships as real business opportunities. On the contrary, referral partnerships were reported as well-established and common in the IT industry. For instance, most large software vendors (e.g. Microsoft, ORACLE) have launched their own referral programs.

For resource access and efficiency purposes, the participants identified two types of partnerships such as *reseller* and *service partnerships.*\(^{18}\) The firms established reseller partnerships, or channel partnerships, with a product/technology supplier (e.g. Microsoft or ORACLE) that owned the brand and the products. In turn, the SMEs distributed these products and/or provided implementation or configuration services. These partnerships provided the firms an indirect outreach to a wide technology network. Through the partnership program, the supplier fostered a platform for all members to cooperate and collaborate, and the members gained access to a broader resource pool. On the other hand, forming service partnerships with other IT firms, the firms obtained expertise and skills complementary to theirs. Table X presents the partnership types with descriptions and examples.

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\(^{18}\) Industry terminology
### TABLE X. IT Partnership Types

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Partnership Type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic positioning- oriented</td>
<td>Strategic partnership</td>
<td>Partnerships formed for business development (sales and marketing channel expansion)</td>
</tr>
<tr>
<td></td>
<td>Marketing Partnership</td>
<td>“We don’t exchange anything directly between two companies but we market it together. So, a marketing partnership is saying “there is a benefit of the two of us and our brand is going into help that company” Participant 12</td>
</tr>
<tr>
<td></td>
<td>Referral Partnership</td>
<td>Partnerships formed for channel expansion; partners recommend each other to customers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Sometimes we get involved in “Barney” partnerships, they are with Barney the giant purple dinosaur. “I love you, you love me, we’re a happy family.” So, they are relationships paired, there is, may actually be a formal contract or something like that but there is no obligation. There’s not really a cash relationship and that is more of a just mutual referral, during software immigrations between our products and like that. [ ] But they are partner relationships to us because we get a large volume of business through these relationships.” Participant 4</td>
</tr>
<tr>
<td>Resource- or Competency- oriented / Efficiency- oriented</td>
<td>Resource- or Competency- oriented / Efficiency- oriented partnership</td>
<td>Partnerships formed to access resources and minimize costs in IT service offerings to the market</td>
</tr>
<tr>
<td></td>
<td>Reseller / Channel Partnership</td>
<td>Partnerships formed for IT service provision; product provider offers the brand and the product, service provider acts as distributor and performs implementations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“So there is a channel relationship, and what I mean by that is we have a service that those vendors don’t provide and that is implementation service. So that’s a good, you could also call it a trading partnership. [ ] So those kinds of relationships, they always are built strictly around the ability to benefit each other economically. Participant 12</td>
</tr>
</tbody>
</table>
“We have formal partnership with Microsoft at different levels. I mean, Microsoft partner program we are a part of, and then we are in the Microsoft respond program for startups, and we engage with kind of the Microsoft ecosystem, we just buy the process to engage with pinpoint which is basically Microsoft partner kind of service.”

Participant 16

<table>
<thead>
<tr>
<th>Service Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships formed for IT service provision; partners complement each other’s services, resources and skills</td>
</tr>
</tbody>
</table>

“Well, one of the firms offers very specific, high-end security services. So, they concentrate on network security; that is really all they do. So, if the customer wants to toughen their security, or they want security assessment or they bulk up their security because of regulatory issues. Some of these things are little bit outside of our expertise. And we bring an expert for that sort of thing.”

Participant 11

“And then we also use other partners for like you would expect for delivering specialized skills in certain areas. So we might have something like some very important specialty that is necessary you know what state is an influence engine is needed, knowledge of that influence engine technology that might be something you might reach out to a, one of the people that we work with us and look for some talent that help us supplement the team.

Participant 17

Across the 17 firms, two firms, a medium-sized IT consulting firm that brokered consulting talent and a small-sized software development firm, reported no partnerships with IT firms. There were no common characteristics between these firms to explain the rationale of this strategy. Service partnerships were reported by the majority of the firms (13 of 15). These firms formed partnerships with other IT firms to access a variety different skills and resources such as expertise in software development, consulting, user design, hosting, network,
telecommunications and security services. Two other firms, both performing software development services, did not engage in service partnerships; instead, they formed referral and reseller partnerships. These firms provided commodity-like, stand-alone products (such as desktop applications as an add-on to Microsoft platforms or SaaS), which showed lower interdependency to other products. Hence, the firms did not need to cooperate with other IT firms. Remaining 13 firms had a combination of reseller, marketing, referral and service partnerships. Based on these findings, it can be interfered that service partnership is a frequent phenomenon for IT SMEs.

This research focuses on SMEs’ IT partnerships formed for service provision purposes only. Therefore, I excluded all other partnership types, such as marketing and referral partnerships, from further analysis. Although reseller partnerships include a service provision component, they have unique characteristics in terms of partnership formation. For example, a firm is entitled as a partner by the supplier and becomes part of the network. In this relationship, rather than forming a partnership, the focal firm agrees with the terms and conditions set by the supplier. Due to these differences, I eliminated the reseller partnerships from further analysis as well. Hence, the remainder of the analysis focuses only on the firms that reported having service partnerships.

4.6.2 Non-local Partnerships

4.6.2.1 Partnership Portfolios

In terms of partnership portfolios, all of the 15 firms reporting partnerships had local partners. For this group, different combinations of partnerships emerged: 1) Local partnerships only, 2) Non-local domestic partnerships only, 3) Local and non-local domestic partnerships,
4) Local and non-local international partnerships and 5) Local, non-local domestic and international partnerships. In the first group, there were four firms: one micro IT operations firm, one micro start-up software development firm, one small IT infrastructure firm and one medium-sized software development firm. As the data pointed out, these firms had no characteristics in common. The second group contained one micro, start-up firm providing IT operations services (Firm 1). The firm reported to partner with helpdesk and network services firms across the US. This choice was not a strategic decision; the participant stated that the firm did not select any local partner yet. For helpdesk and network services, partner’s location was not a limiting factor; thus, the firm has engaged in partnership with domestic IT firms.

Six firms (one micro and five small firms) formed both local and domestic partnerships; their core businesses varied from IT security services to IT consulting and software development. These firms partnered with local IT firms for all kind of services whereas they cooperate with domestic firms for consulting and software development. One of them was engaged not in service, but reseller and referral partnerships with distant IT firms. Fourth group comprised of three firms (one small and two medium-sized firms) that partnered with international IT firms for software development, in addition to local ones. Finally, there was one medium-sized software development firm that had a combination of three types of partnerships. The firm cooperated with local user experience design and network firms, domestic hosting and international software development firms. Firms’ partnership portfolios are summarized in Table XI.
<table>
<thead>
<tr>
<th>Partnership Type</th>
<th>Firm</th>
<th>Core Business</th>
<th>Size</th>
<th>Year of Est.</th>
<th>Services subject to Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>Firm 9</td>
<td>IT Operations</td>
<td>Micro</td>
<td>1998</td>
<td>Telecom Services</td>
</tr>
<tr>
<td></td>
<td>Firm 16</td>
<td>Software Development (Desktop app.)</td>
<td>Micro</td>
<td>2008</td>
<td>No service partnership</td>
</tr>
<tr>
<td></td>
<td>Firm 5</td>
<td>IT Infrastructure</td>
<td>Small</td>
<td>1997</td>
<td>Telecom, VoIP services</td>
</tr>
<tr>
<td></td>
<td>Firm 12</td>
<td>Software Development (Custom dev.)</td>
<td>Medium</td>
<td>2002</td>
<td>Software Development</td>
</tr>
<tr>
<td>Non-local / Domestic</td>
<td>Firm 1</td>
<td>IT Operations</td>
<td>Micro</td>
<td>2006</td>
<td>Helpdesk, Network Services</td>
</tr>
<tr>
<td></td>
<td>Firm 2</td>
<td>Software Development (Custom dev.)</td>
<td>Small</td>
<td>1991</td>
<td>Local : Network Services Non-local: Software Development</td>
</tr>
<tr>
<td></td>
<td>Firm 17</td>
<td>IT Consulting</td>
<td>Small</td>
<td>2001</td>
<td>Software Development</td>
</tr>
<tr>
<td></td>
<td>Firm 4</td>
<td>Software Development (SaaS products)</td>
<td>Small</td>
<td>2003</td>
<td>No service partnership</td>
</tr>
<tr>
<td></td>
<td>Firm 14</td>
<td>IT Consulting</td>
<td>Small</td>
<td>2006</td>
<td>Software Development, Consulting Services</td>
</tr>
<tr>
<td></td>
<td>Firm 6</td>
<td>Software Development (Custom development)</td>
<td>Medium</td>
<td>1973</td>
<td>Software Development</td>
</tr>
<tr>
<td></td>
<td>Firm 7</td>
<td>Software Development (Custom development)</td>
<td>Medium</td>
<td>1981</td>
<td>Software Development</td>
</tr>
<tr>
<td>No partnership</td>
<td>Firm 8</td>
<td>IT Consulting</td>
<td>Medium</td>
<td>1999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm 15</td>
<td>Software Development (Custom development)</td>
<td>Small</td>
<td>2001</td>
<td></td>
</tr>
</tbody>
</table>
The firms engaged in local partnerships were motivated by trust, convenience and cost; local partners were “known” and “trusted” parties owing to network affiliation and community interactions. In local partnerships, there were more opportunities to have FTF contact, thus there was less friction in communication and coordination. As one participant reflected:

If I have another choice, I will always pick the local one, if it’s reasonably good. Because it is so important like that you have face to face time with people before you start the business. It builds the relationship and people are much more responsive to your e-mails afterwards. If you have not meet in person, it is always easier to say “No” or kind of slack it out. Participant 16

Moreover, cost was an important factor. With local partners, the firms could minimize the travel, transactions, search, and communication costs. One participant exemplified:

A lot of times we will get requirements from companies indicating that they are not willing to pay travel expenses. So if we are dealing with local companies who have local candidates we know that we don’t have to worry about travel expenses. Participant 2

4.6.2.2 Non-local Partnership Challenges

The non-local partnerships presented various benefits to the firms. For example, the firms with non-local partnerships could access to a larger pool of talent with specific credentials (such as CMM) and acquire niche skills that were not available in their localities. International relationships enhanced medium-sized firms’ reputation and credibility in the market. Moreover, the firms enjoyed cost differentials across regions. The participants marked that the human resources costs in Chicago were relatively higher; as a remedy, they sought partners from low-cost regions or countries. As one participant summarized:

And I did this, because it has three advantages: number one, it gave us immediate access to CMM 5 methodology, number two it gave us access to case studies and track records of having delivered projects, because [firm] didn’t have a track record of offshore projects. But by leveraging or cooperating the experience in case studies of our offshore partners, then we generated revenue, to gain credibility in the market place. And then three it gave you access to a deep pool of resources that could that was responsible without a bench. Participant 7
Despite these benefits, non-local partnerships were not hassle-free. From narratives, it became apparent that the distance aggravated the challenges and complexities already existing in partnerships. Major problems reported were related to as partner search and selection, communication, knowledge transfer, coordination, and governance functions. The firms did not possess the resources and the resources to search for, analyze and evaluate potential non-local partners, especially the international ones. Communication problems associated to time zones differences and availability were disruptive. Due to the geographical distance between partners, the firms had to utilize less-rich, asymmetric and asynchronous media, such as e-mail and phone, because of lack of FTF contact. In international partnerships, the firms faced additional challenges such as cultural differences, language barriers, and firm’s lack of experience in distributed development. Consecutively, they had to allocate excessive time and effort in knowledge and information transfer with partners. As a result, coordination between partners was inefficient and the firms were concerned about the quality of service delivery.

Due to the same reason, the firms found it laborious to crystallize and share customer requirements, and exchange knowledge with the distant partners. Transferring the service component to a non-local partner required more specific and clear documentation compared to a local one. During the project, some firms experienced difficulties in terms of project and quality management. Last but not the least, one of the firms had a channel conflict with its offshore partner who had a presence in the US; large offshore firms can easily bypass the focal firm and deliver directly to the customer. The interviewee claimed that friction occurred at the interface between the partners and also caused additional administrative burden for his firm. Table XII summarizes the challenges experienced in non-local partnerships.
## TABLE XII. Non-local Partnership Challenges

<table>
<thead>
<tr>
<th>Partnership Step</th>
<th>Partnership Challenges</th>
<th>Sample Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search and Selection</td>
<td>Lack of resources for search and selection</td>
<td>But smaller companies don’t really have all the time to try to understand and research companies that they don’t know especially [non-local service providers] trying to service from [abroad] into Chicago. <strong>Participant 12</strong></td>
</tr>
<tr>
<td>Communication</td>
<td>Time zone differences</td>
<td>I would say communication, time zones and availability would be the three big disadvantages. <strong>Participant 6</strong></td>
</tr>
<tr>
<td></td>
<td>Availability issues</td>
<td>All your interaction is via e-mail or phone. We are very relationship oriented company. And it is a disadvantage not to have the face to face. They were having a meeting Friday morning at ten o’clock. We’d like to be there as supposed to “let’s do a conference call”. So, that’s how we’d say non-local firms have a disadvantage. <strong>Participant 6</strong></td>
</tr>
<tr>
<td>Knowledge Transfer</td>
<td>Difficulty in crystallizing and sharing customer requirements</td>
<td>When I am trying to give them an understanding of the project of what we are looking for, it takes a lot of time on my end to explain to them what exactly I want. <strong>Participant 2</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>So let’s say a company needs software for their shop floor area in a manufacturing plant and it is helping them with new products and it’s related to the equipment laid out on their plant floor. How to deal with the discussions remotely? So that people try to visualize and crystallize what the customer is asking makes it extremely tough. <strong>Participant 12</strong></td>
</tr>
<tr>
<td>Coordination</td>
<td>Project and quality management problems</td>
<td>We can’t just send them a project and expect that it is going to come back perfect. You know there is, you have to do a lot of Q&amp;A work, and just have to be a lot more specific about what you tell them to do. <strong>Participant 11</strong></td>
</tr>
<tr>
<td>Governance</td>
<td>Customer ownership and channel conflict</td>
<td>It’s a very complicated relationship because we are competitors in a sense, because they have direct sales force in US, trying to find the kind of work that we are trying to find. So there is potential for channel conflict. <strong>Participant 7</strong></td>
</tr>
</tbody>
</table>
4.6.2.3 Non-local Partnership Enablers

Though not frequent, non-local service partnerships were not rare for the participants. Data analysis suggested some patterns. For example, the micro-sized firms showed greater tendency to form local partnerships, as expected and theorized before. As the firm size increased, the firms expanded their partnership portfolios; they were more likely to partner with non-local IT firms. Small-sized firms were engaged in non-local domestic partnerships; some of them showed interest in international partnerships as well. Finally as the firms became larger, they were involved in multiple partnership types including international partnerships. Hence, to a certain extent, the findings are in line with previous studies arguing that distant cooperation is associated with firm size.

However, there were exceptions to this norm. For example, one medium-sized firm preferred local partners only, whereas one micro firm cooperated with domestic IT firms. Instead, the results unfolded other internal and external factors that facilitated non-local partnership formation. The discussion on these enablers is presented in the following sections.

4.6.2.3.1 Organizational Capabilities

I observed that depending on the IT service provided, firms engaged in non-local partnerships developed various strategies to overcome the distance-related problems. The distance impaired mostly coordination and communication in service partnerships established for creative services such as software development and consulting. Hence, firm strategies were more salient to this type of partnerships. As part of the strategies, the firms created organizational mechanisms, procedures, and routines for search, selection, project management, knowledge transfer and governance activities. These procedures and processes were not formal best
practices; rather, context-specific organizational routines tailored in line with the firm’s senior managers’ orientation and background, similar to dynamic capabilities. For example, especially for international partnerships, the firms adopted an unstructured partner selection process to evaluate an unknown, distant firm with relatively less information.

These firms modified their existing software development and project management processes to address the requirements of distant cooperation, including extended quality assurance steps. The firm’s existing project management skills and the leadership’s international consulting experience facilitated and shaped these modifications. Especially in software development projects, the partners needed to exchange detailed business and technical information; a substantial portion of that exchange comprised tacit knowledge. In non-local partnerships, crystallization of the business requirements was crucial to convey customer needs correctly to a distant service provider that had not many opportunities to contact the customer. For that purpose, the firms prepared more detailed functional and technical specifications with clear instructions, than they submitted to their local partners. Additionally, they embedded additional quality assurance steps in their testing processes to remedy potential quality issues.

In terms of communication, the firms utilized multiple media, such as e-mails, conference calls, and video conferencing, to substitute for FTF contact and in-person meetings. They adapted the media according to the prevailing context and content. Finally, to avoid customer ownership conflicts, the firms enhanced their negotiation and conflict management skills; they governed these relationships via strong contracts to avoid partners’ direct solicitation to the customers. Cooperation with a non-local partner occurred more smoothly with these facilities in place. Table XIII presents the strategies employed by the firms to overcome challenges in non-local partnerships. These findings support the argument that IT SMEs engaged
TABLE XIII. Strategies to Overcome Non-local Partnership Challenges

<table>
<thead>
<tr>
<th>Partnership Step</th>
<th>Strategy</th>
<th>Sample Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search and Selection</td>
<td>Establish an informal, unstructured selection</td>
<td>We did evaluate at the location in India, try to find a location that has a lower turnover rate of employees. We needed to meet people and see and</td>
</tr>
<tr>
<td></td>
<td>process</td>
<td>have them actually prove themselves and build and earn trust that they are a company we can count on. Participant 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We went through partner selection process, we elected the size of the company, what skills they have and what the reputation was, what they can offer us on a subcontracting mode. Participant 7</td>
</tr>
<tr>
<td>Knowledge Transfer</td>
<td>Prepare detailed and clear specifications</td>
<td>But if I give you a booklet, a specific booklet when everything is laid out and “this is what we want you to develop”, that’s work well. Because you</td>
</tr>
<tr>
<td></td>
<td></td>
<td>can source it at lowest possible cost to complete the setting is defined. It is defined to 100% completion. That model would always be successful. Participant 12</td>
</tr>
<tr>
<td></td>
<td>Implement additional quality assurance steps</td>
<td>So, here with our team of developers, I can just say “here is a project, go ahead and do what you are told”. [ ] I have to very much have it spec’ed out, very specific, and that when they send back the code has to be Q&amp;A’d by somebody from our side. Participant 11</td>
</tr>
<tr>
<td>Coordination</td>
<td>Develop project management skills</td>
<td>I mean, our strength is we have a lot of project management type of experience. We are capable of handling a project of higher end and dishing out the work to [non-local firm]. Participant 2</td>
</tr>
<tr>
<td></td>
<td>Develop administrative capabilities</td>
<td>Larger companies which have more bandwidth or in terms of internal administrative capabilities and also can accept more of a distributed development environment, they are much more easier to make that kind of moves. Participant 12</td>
</tr>
<tr>
<td></td>
<td>Implement a distributed development environment</td>
<td></td>
</tr>
</tbody>
</table>
Another important finding was that there was a learning curve behind the development of these strategies. Through positive and negative experiences, the firms acquired lessons learned, adjusted their expectations from the partner, developed and reconfigured their mechanisms to deal with distance-related challenges. This finding confirmed the role of organizational learning in capability development. As one participant explained-

Our experience was that it took a lot of time to make it work, a lot of time, effort and money to really get it to the point where it was working efficiently. There is a learning curve. We can’t just send them a project and expect that it is going to come back perfect. [ ] So, there is just a lot we are into learning the proper way to do it, we have learned so that’s fine. Participant 11

In conclusion, the firms that were engaged in non-local service partnerships differed from others in their capabilities, not resources. Firms that developed and implemented organizational processes and routines for partner search and selection, coordination, communication, knowledge transfer and governance showed greater interest in forming and continuing non-local partnerships. These processes corresponded to firm’s partnership capabilities; these dynamic capabilities, rather than firm’s size, age or resources, substituted for the lack of geographical proximity and facilitated non-local partnership formation.
4.6.2.3.2 Organizational Proximities

In addition to the capabilities, the interviews revealed other factors that provided quasi-proximity between partners, enabled trust building and thus facilitated non-local partnership formation. Shared personal and technology networks, backgrounds and local representation created proximity between geographically distant partners and facilitated non-local partnership formation.

Affiliation via firm- or individual level networks, especially senior management’s networks and connections, played an important role in inter-firm relationships. For example, for IT consulting firms that cooperated with other non-local consulting firms, the main enablers were senior managers’ orientation towards distant cooperation and their nation-wide professional networks. As the interviewee explained:

Well, geography isn’t that critical. You know if you again look at the evolution of our business, relationships and the networks we participate, a lot of them we build out of Chicago market. I have one guy that does CIO advisory working with us, that is in Boston, another one in Louisville that we are serving the field out there, you know it is mainly the growth and the evolution of relationships with people that myself or my partner worked over the years. Participant 14

Similarly, partnerships formed with technology firms or product providers (for example Microsoft partnership program) offered the firms access to a broader ecosystem. Via nationwide conferences and user group meetings, the firms could meet other network members and build service partnerships across the US. Thus, these technology partnership programs provided the platforms that enabled trust building and cooperation between geographically distant firms.

We have formal partnership with Microsoft at different levels. … I just came back from WPC which is supposedly the Microsoft Partner event of the year in New Orleans and I met a lot of different companies and we are trying to build more partnerships out of that. Participant 16
Another influential factor was shared cultural, national or ethnical backgrounds between employees at partnering firms; these ties acted as an intermediary between the firms as well.

One of our employees was born in Pakistan. So he actually has through his family and friends back in Pakistan connections to various companies. So, it helped from a cultural standpoint that he managed the whole thing. **Participant 11**

Finally, the non-local partner’s representation at the focal firm’s location, such as sales or marketing office, provided support for trust building. The expectation was not that local representatives performed full functionalities; rather they acted as a bridge between the different cultures, a communication interface, and a boundary spanner. Several participants claimed that the local representation, even limited, helped overcome communication and coordination challenges to a certain extent and led to consideration of non-local partnership formation.

What I prefer having would a point of contact that will come out of here to look at all the work and then to talk back to their people in India. **Participant 2**

### 4.6.2.3.3 Information Technology Service Type

The data proved that firms’ partnership choices were influenced by the type of IT service rendered via the partnership. Some IT services were location-agnostic; for procedural, system-driven, routine and remotely-rendered services (e.g. hosting and helpdesk), partner’s location did not matter. For these services, the firms did not need to interact and exchange information with the partner frequently, they could easily communicate over Internet, phone and e-mail; the distance between partners was not counterproductive. Thus, the firms were more open to distant cooperation. The participants characterized this type of services as *commoditized*.

It doesn’t matter where the hosting is, if it is next door to you or if it is across the country. [ ] The location is not a factor. I don’t care what these servers look like, I don’t need to visit them, I don’t need to talk to anyone. **Participant 3**

[Helpdesk] I almost care less where it is located. **Participant 1**
On the contrary, for IT services requiring physical presence and immediate intervention, such as infrastructure design and management, the firms preferred a partner close to the customer’s premises.

On the network company, again that’s a local partner. And its local because usually it’s a physical thing, if someone has a network issue, they want someone to be there physically pretty quick because it’s usually, it just makes them feel more comfortable. Participant 10

For creative services such as user design and software development, the firms needed frequent and spontaneous FTF interactions with the partner to exchange ideas and tasks, and to decrease the ambiguity embedded in creativity. The participants argued that the distance between partners would impede communication and coordination, and increase the risk of failure. Hence, they avoided entering a risky partnership with a lesser known firm, and chose IT firms in their localities.

All of our projects are in combination of, all of our projects involve a creative component, we are doing design. Delivering creative services is very emotional. It takes a lot of conversations, and the conversations they are face to face. Participant 3

Nevertheless, a few small- to medium-sized software development firms cooperated with domestic and international IT firms for creative services. The common identifier of these firms was their partnership capabilities.

The abovementioned findings increase our understanding on SMEs’ partnerships strategies, particularly for the IT industry. The interviews acknowledge IT SMEs’ partnership definitions, perceptions, motivations and role of trust in their partnerships; these findings are mostly in line with the literature. What is important about the findings is that, first; there are different types of partnerships in IT world - marketing, referral, reseller and service partnerships- serving different purposes. Indeed, firms adopt different strategies and behaviors for each type of
partnership. Thus, theorizing on IT or technology partnerships generally does not reflect the business world. Second, specific to service partnerships, IT service type drives firms’ partnership strategies and choices, including partner’s location. Third, though not frequent, service partnerships with non-local IT firms are not uncommon. These partnerships require a lot of effort and investment to overcome distance-related challenges. Thus, not the firm’s size but the partnership capabilities facilitate the formation; the extent of the capabilities varies with the IT service type. Forth, firms do need to substitute for the lack of geographical proximity for trust building. The findings suggest that various organizational proximities - senior management’s orientation, shared network affiliation, shared employee backgrounds and partner’s local representation- help close the distance with non-local partners.

Based on these findings, I refine and restate the initial research questions as below:

For IT SMEs,

- Which factors substitute for geographical proximity between partners and enable relationship building over distance?
- What is the role of organizational capabilities in non-local service partnerships? How do they influence partnership formation between distant IT firms?
- What is the role of organizational proximities in non-local service partnerships? How do they influence partnership formation between distant IT firms?
- What is the role of IT service type in non-local service partnerships? How does it influence partnership formation between distant IT firms?

The second phase of the empirical study aims to analyze these factors in details, elaborate the relationships between them and explore how they influence the partnership formation between distant IT firms.
5 MULTIPLE CASE STUDIES

The findings of the first empirical phase reflected the field perspective on IT SMEs’ partnerships, provided a well-grounded basis for the exploratory research and helped to refine the research questions. At this phase, data collection was introductory and brief. Although the interviews gave voice to the phenomenon and manifested the emergent factors, data collected did not reflect the richness of the details. Thus, exploration of the phenomenon begs for a more detailed analysis of rich, thick and context-specific data. The second phase of the empirical study serves to that purpose, opening the black-box of the SME partnership formation behavior. The ultimate goal is to develop a research model and propositions.

For that purpose, I employed case study methodology. Focusing on one or multiple settings to create theoretical constructs and propositions (Eisenhardt, 1989; Eisenhardt and Graebner, 2007), the methodology elicits narratives, observations and other types of data about how an incident unfolds (Runeson and Host, 2009). As a research strategy, it is well-suited for theory building on new topics and widely utilized in social sciences. Case studies are rich empirical descriptions of particular instances or settings with the real-world content (Yin, 2009). The specifics of data derived from the cases and the cross-case analysis produce theory generalizations (Eisenhardt, 1989). This type of generalization is not the same as the one achieved by quantitative studies; in this method, central to theory building is not the generalization but the replication logic (Eisenhardt, 1989).

The case study methodology is an iterative, inductive process with a bottom-up approach aiming to understand the dynamics and recognize the patterns of relationships among the constructs present in the setting (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). In this research, my approach was not totally inductive and grounded in data. Main anchors were the
previous research studies, the research questions and a priori propositions. As a roadmap, I followed Eisenhardt’s (1989) case study framework consisting of several steps and associated activities in the process of theory building from case studies. Table XIV maps Eisenhardt’s main steps and activities to the research presented. I addressed the first step, i.e., getting started, in the previous sections; the remaining steps are discussed in detail in the following sections.

### Table XIV. Building Theory from Case Study Research (Adapted from Eisenhardt, 1989)

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
<th>Research Study</th>
</tr>
</thead>
</table>
| Getting started       | Definition of research question   | • Which factors enable IT SMEs to form non-local partnerships with other IT firms for service provision?  
                        |                                   | • How do these factors influence partnership formation between distant IT firms? |
|                       | Possibly a priori constructs      | Non-local service partnership formation                                   |
|                       |                                   | Firm partnership capabilities                                              |
|                       |                                   | Organizational proximity                                                    |
|                       |                                   | IT Task/service                                                             |
|                       | Neither theory nor hypotheses     | No theory for SME partnership capabilities and nonlocal partnership formation |
| Selecting cases       | Specified population              | Small- and medium-sized IT firms (software development or consulting)        |
|                       | Theoretical, not random sampling  | Selecting theoretically useful cases to reflect different contexts in software development segment |
| Crafting instruments  | Multiple data collection methods  | Interviews, documents, corporate webpage, news and observations             |
| and protocols         | Qualitative and quantitative data | Quantitative (how many respondents, firm and themes) and qualitative (why)   |
|                       | combined                          |                                                                             |
|                       | Multiple investigators            | Single researcher, support for codebook refinement                          |
| Entering the field    | Overlap data collection and       | Iterative process used                                                       |
|                       | analysis including                |                                                                             |
In the qualitative studies, approach to and improvement of validity and reliability are manifested in a different manner compared to the quantitative studies. In general, the validity has three dimensions, such as construct, internal and external validity. Construct validity reflects the correctness of the measurement, i.e., to what extent the operational measures represent the constructs in the study. To increase the construct validity, researchers suggest techniques like triangulation, establishing a chain of evidence, having designs and protocols reviewed by peer researchers and having key informants review the results (Stake, 1995; Yin, 2009). Several methods of triangulation may be applied (Stake 1995):

1. Data (source) triangulation—using more than one data source or collecting the same data at different occasions,
2. Researcher triangulation—having multiple researcher in the study,
3. Methodological triangulation—combining different types of data collection methods, e.g. qualitative and quantitative methods,
4. Theory triangulation—using alternative theories or viewpoints.

Internal validity is concerned about causality. In order to increase the internal validity, methods exploring the causal relationships (such as pattern matching, explanation building, addressing rival explanations and using logic models) are helpful (Yin, 2009). Eisenhardt and Graebner (2007) suggest selection of polar or negative cases to observe contrasting patterns and derivation of alternative explanations that reject the hypotheses.

External validity represents to what extent the findings are relevant to other cases and domains. In qualitative studies, there is no population from which a statistically representative sample has been drawn; the intention is to make analytical generalizations where the results are extended to cases with similar characteristics. To improve the external validity, analytical replication of logic to multiple cases is suggested. Multiple case studies augment the power of the methodology; generate more robust, generalizable and testable theory; and increase the possibility for replication, extension and elimination of alternative explanations (Yin, 2009). Thus, analysis of multiple case studies increases the strength of theory development.

Reliability in qualitative studies refers to replicability of the research study, i.e., to what extent the data and the analysis are dependent on the researcher. A case study is deemed as reliable if the researcher can show a logical chain of evidence so that an external reviewer can replicate the methods and reach similar conclusions. For that purpose, researchers recommend to prepare an audit trail, e.g., a case study protocol before conducting the study and report for each
case after data is collected (Stake, 2006; Yin, 2009). A case study protocol is a container for the design decisions as well as the field procedures. It serves as a guide for data collection; formulation of the protocol makes the research concrete in the planning phase. Other researchers may review it to give feedback, which decreases the risk of missing relevant data sources, interview questions or roles to include in the research. Finally, it can serve as a log or diary for data collection and analysis (Pervan and Mambo, 2005).

In order to improve the validity and the reliability of this research, I employed several methods. First, for triangulation purposes, I utilized multiple data sources (such as interviews, public information, news, organization charts, agreements, applications) till the extent it was possible. I interviewed multiple key informants at different levels in a firm; for all cases I gathered data from the senior managers who developed and implemented the partnership strategies.

Second, I developed a case study protocol based on Pervan and Mambo’s template (2005). Presenting the project, propositions, methodology, field procedures and relevant documents (e.g., Informed Consent, Interview Protocol, emails for recruitment and confirmation), this protocol served as a roadmap for the research, and improved replicability, reliability and consistency of the study. For data collection and analysis, I created detailed procedures based on the qualitative research best practices (Miles and Huberman, 1994; Stake, 1995; Patton, 2002; Yin, 2009); I followed these procedures for each case.

For internal validity, I developed an Interview Protocol, which was reviewed and refined several times by my advisor, the committee members, peer researchers and practitioners. I implemented the feedback obtained from the first phase of the study as well. For each interview, I followed the interview protocol for consistency in data collection. Furthermore, I created and
utilized case report templates to ensure quality and consistency in data capture and categorization (Stake, 1995). Finally, as recommended by Eisenhardt and Graebner (2007), I included negative (no partnership) and polar (local vs. non-local partnerships) cases in the design and analysis. This approach enabled to detect contrasting patterns and discourse alternative explanations. The sample of Case Study Protocol, Interview Protocol, and Analysis Procedure are presented in Appendix E, F, and G.

The following sections describe the main steps of the case study methodology such as case selection, recruitment, data collection and data analysis.

5.1 Case Selection

In the case study methodology, the aim is to choose cases that can contribute more to theory development and are likely to be replicable (Eisenhardt, 1989; Stake, 1994; Eisenhardt and Graebner, 2007). The selection strategy is theoretical rather than random or stratified; the key concept is theoretical replication rather than generalization (Yin 2003). There are different case selection strategies depending on the research question. For example, Eisenhardt and Graebner (2007) suggest selecting polar cases in order to observe contrasting patterns. Accordingly, I chose the cases presented in the study.

The cases were drawn from the population of small- and medium-sized Chicago IT firms. To increase the control over the research design, the eligibility criteria were further constrained. Considering the fact that the micro-firms, the firms with less than 10 employees, might not have any partnerships and could not contribute substantially to the phenomenon, I excluded these firms from the sample. Similar to the first phase, the geographical scope of the study was Chicago Metropolitan Area, i.e., the firms having their headquarters and major operating base in Chicago were eligible. To control for the effects of multiple sites and thus non-local intra-
company relationships, I focused on firms with single location in Chicago or a few locations across Midwest, including Chicago. Similarly, firms having operations in multiple countries were excluded; these companies might be special purpose vehicles with main motivation of importing IT services to other countries, e.g. India. In order to explore the learning curve of the partnership capabilities, startups (i.e. the firms younger than three years) were not included in the sample as well.

To control the segment-specific differences, focal firm’s IT segment was constrained to software development only. In other firms, the case firms were either software development or IT consulting firms with focus on software development, customization or integration activities. I attempted to include different subsegments (such as web or mobile development, custom development, ERP implementation, IT consulting and product development) into the case pool. IT staffing or staff augmentation firms were eliminated, because they acted as a commodity provider rather than a partner to provide a service. This setting deemed to be appropriate for two reasons. First, a single-segment study provided greater control over the sources of extraneous variation due to segment-specific or the environmental factors. Second, software development firms showed relatively more interest in forming partnerships unless they had a unique product, e.g., SaaS. In summary, firms eligible for selection were software development or IT consulting firms with 11 - 250 full time employees, older than three years, and headquartered in Chicago Metropolitan Area.

Adopting Eisenhardt and Graebner’s (2007) approach, I sampled three groups of software or IT consulting firms: (1) firms without any IT partnerships, (2) firms cooperating with local partners only, (3) firms having both local and non-local IT partnerships. IT partnerships to be analyzed were service partnerships set with other IT firms only. The first group, negative cases,
served to contrast the partnerships; hence, the scope of the case study was limited. The second group acted as the control group for non-local partnerships. The last category included the IT firms with domestic or international IT. Ultimately, I selected ten cases; theoretical saturation was the criterion to determine the maximum number of cases (Corbin and Strauss, 2008).

5.2 Recruitment

For recruitment, I employed multiple strategies: 1) Re-contacting the previously interviewed firms that fit to the modified profile, 2) Search and recruitment of new IT firms via personalized invitations, and 3) Search and recruitment of new IT firms via public announcements. First, I re-contacted four of the previously interviewed that fulfilled above-mentioned eligibility criteria. Two of them agreed to participate; ultimately, one of these firms directed me to its subsidiary. Second, I scanned and identified candidates from LinkedIn and Hoover’s databases. To validate the eligibility, I analyzed corporate webpages as well. Based on the available information, I determined the senior managers (e.g. partners, founders, CEO, CIO, or directors) and sent them personalized invitations via e-mail. Similarly, I called potential firms and invited their senior managers to the research study. I also contacted the members of UIC’s Center for Research in Information Management (CRIM) through e-mails. Following the initial contacts, the invitees were sent reminders and called for follow up. This method produced fewer results.

As a third recruitment strategy, I referred to other sources, such as personal networks, professional social networks (e.g. LinkedIn, Tech Cocktail Group), and associations, (e.g. Chicago Chamber of Commerce, Illinois Technology Association (ITA), Society for Information Management (SIM) Chicago, Healthcare Information and Management Systems Society (HIMSS)). Through communication with association officers, and periodic postings on the social
networking sites or listservs, I promoted participation to the study. The associations offered various types of assistance: posting calls for participation in their newsletters or bulletins, announcing the study on their websites, or introducing the research to their member base. In this self-reply method, firms that showed interest to participate were assessed for eligibility. Finally, another recruitment method was snowball sampling; the participants were requested to introduce the researcher to their contacts in other eligible firms.

During the period of August 2010 - February 2011, I contacted approximately 65 eligible IT firms in Chicago via e-mail and phone. The response rates to personalized e-mails, phone invitations and snowball sampling were low; the recruitment efforts via personal contacts and networks were relatively more fruitful. As a result, I recruited ten firms. Out of ten, two firms had participated to first phase, seven firms replied to the announcements or the personalized invitations, and one firm was directed by another participant. Regardless of the recruitment method, I re-contacted the firms agreed to participate to verify the partnership types and the firm demographics such as age, size and location. The validated firms were sent the Interview Protocol and Informed Consent in advance for review and preparation. Afterwards, senior managers were contacted to set an interview plan and timeline.

5.3 Case Demographics

IT SMEs subject to case analysis were software development or IT consulting firms with a concentration in custom software development such as web, mobile, front- and back-end end applications and integration software. Four firms have applied Agile methodology in software development; their software development model was structured according to Agile requirements, such as collocation/proximity to the customer, small and collocated teams, fast-paced development, shorter project cycles, and frequent deliveries. Three firms were active Microsoft
partners, implementing and configuring Microsoft solutions. Only one firm has provided ERP implementation services. Representing a unique case, one of the firms was a product/content provider for health information systems. All case firms but one focused on one single business line with peripheral services such as training and technology consulting. One firm had multiple business lines such as business and IT strategy, business operations/managed services, software development, business intelligence, network integration, and legal services. The case study focused only on the software development business line.

All of the firms were located in Chicago Metropolitan Area: their major operating or service provision base was in Chicago. Some of them had satellite offices in Midwest or across the US. Firm size differed between 25 and 190 full time employees (FTE), representing a scale from small to medium sizes. The firms were older than five years, being the newest established in 2001 and the oldest in 1992. Hence, the case firms have been in business for a sufficient period to develop and implement an operation model. All case firms were private; therefore, publicly available information was limited. All of the founders except one were active in operations and strategy development. These founders were still shaping firm strategies and behavior; thus, they were considered as the key informants, and I interviewed most of them.

The customer size varied between small (such as startups and entrepreneurs) and large firms (such as Fortune 500 firms). Some case firms were specialized in providing IT service to the specific industries, one of the cases has served to government organizations as well. The majority of the customers were located in Chicago Metropolitan Area or Midwest. This fact indicated that the case firms were actually bounded in a certain location. However, there were exceptions. One of the IT consulting firms served across the US and had multinational customers. Similarly, the product/content provider firm served to the healthcare organizations.
across the US, another software development company fostered its customer base on a national scale.

In terms of the partnerships, two firms were not engaged in any partnerships; these were identified as negative cases. Out of the remaining eight firms, one had local partnerships only; two firms had mostly local partnerships, but had potential non-local candidates; five firms had a combination of local and non-local partnerships.

The demographics of case firms are presented in Table XV; the firms are sorted by the employee size in ascending order. For anonymity, I utilized pseudonyms, such as Beta, Eta, Gamma, etc., instead of real firm titles. The service provider firm that provided supplemental information was named as “Is”. Further details on the case firms are presented in the Findings section.
### TABLE XV. Case Demographics

<table>
<thead>
<tr>
<th>Firm</th>
<th>Beta</th>
<th>Pi</th>
<th>Rho</th>
<th>Lambda</th>
<th>Omega</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (FTE)</td>
<td>25</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Primary Location</td>
<td>Chicago</td>
<td>Chicago</td>
<td>Chicago</td>
<td>Chicago</td>
<td></td>
</tr>
<tr>
<td>Founders</td>
<td>2 founders, active</td>
<td>5-6 founders, 2 active</td>
<td>1 founder, active</td>
<td>1 founder, active</td>
<td>1 founder, active (not interviewed)</td>
</tr>
<tr>
<td>Core business</td>
<td>Custom solutions development (Web, mobile, content management and assessment systems)</td>
<td>Custom solutions development (Web, RIA, mobile, SaaS) User experience design</td>
<td>Custom solutions development (Web, mobile, RIA) Agile training</td>
<td>Strategic management and technology consulting ERP implementation Software customization</td>
<td>Custom solutions development (Web, mobile, desktop) Agile training</td>
</tr>
<tr>
<td>Main technologies</td>
<td>.NET, JAVA, open source, Drupal, Flex</td>
<td>Technology and database agnostic Agile methodology</td>
<td>Adobe Flex, Silverlight, JAVA, C# , .NET Agile methodology</td>
<td>ERP Microsoft technologies</td>
<td>Ruby on Rails, Eclipse RCP, JAVA, Objective C , Agile methodology</td>
</tr>
<tr>
<td>Customer industry</td>
<td>Assessment and education industry Nonprofit organizations Entrepreneurs</td>
<td>Energy/Financial Services/Healthcare/ Insurance/Media and Publishing</td>
<td>Any</td>
<td>ERP: manufacturing and distribution industries Microsoft : any</td>
<td>Any</td>
</tr>
<tr>
<td>Customer size</td>
<td>Small and midmarket</td>
<td>Start-ups to Fortune 500 companies</td>
<td>Midmarket to Fortune 1000</td>
<td>Medium to Fortune 500</td>
<td>Startups and midmarket</td>
</tr>
<tr>
<td>Customer location</td>
<td>Majority in Chicago, across US</td>
<td>Majority in Chicago and Midwest</td>
<td>Majority in Chicago</td>
<td>Across US and Chicago</td>
<td>Majority in Chicago</td>
</tr>
<tr>
<td>Firm</td>
<td>Io</td>
<td>Sigma</td>
<td>Eta</td>
<td>Gamma</td>
<td>Psi</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>--------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Size (FTE)</td>
<td>42</td>
<td>60</td>
<td>100</td>
<td>130</td>
<td>190 / 20 (sw only)</td>
</tr>
<tr>
<td>Primary Location</td>
<td>Chicago</td>
<td>Chicago</td>
<td>Chicago</td>
<td>Chicago</td>
<td>HQ in Chicago, offices across US</td>
</tr>
<tr>
<td>Founders</td>
<td>2 founders, active</td>
<td>1 founder, active</td>
<td>1 founder, active</td>
<td>2 founders, active</td>
<td>Multiple founders, (not interviewed)</td>
</tr>
<tr>
<td>Core business</td>
<td>Medical vocabulary and interface products</td>
<td>Technology consulting Custom solutions development (Web, mobile) Agile training</td>
<td>Custom solutions implementation and integration</td>
<td>Custom solutions development</td>
<td>Multiple business lines for SW : Custom solutions development (web applications)</td>
</tr>
<tr>
<td>Main technologies</td>
<td>.NET, Java, C#, mobile apps Objective C, C++</td>
<td>.NET, JAVA, MS, mobile technologies Agile methodology</td>
<td>JAVA, .NET, Microsoft platforms</td>
<td>.NET, JAVA, open source</td>
<td>JAVA, .NET, Microsoft platforms</td>
</tr>
<tr>
<td>Customer industry</td>
<td>Healthcare</td>
<td>Majority in financial services</td>
<td>Healthcare, Retail, Energy, Government and Insurance</td>
<td>Information intensive and service industries</td>
<td>Professional services, small businesses</td>
</tr>
<tr>
<td>Customer size</td>
<td>Various</td>
<td>Midmarket to Fortune 500</td>
<td>Fortune 500 Large government organizations</td>
<td>NA</td>
<td>Small to midmarket</td>
</tr>
<tr>
<td>Customer location</td>
<td>Across US</td>
<td>Majority in Chicago</td>
<td>Majority in Chicago</td>
<td>Majority in Chicago</td>
<td>Majority in Midwest</td>
</tr>
</tbody>
</table>
5.4 Data Collection

The primary data sources for data collection were semi-structured interviews with multiple key informants at each firm. Key informants were the key persons in a setting, who own sufficient knowledge and adequate involvement capability regarding the phenomenon studied. In that study, there were two groups of key informants: 1) the active founders, the partners, the C-level executives, and the senior managers responsible for the partnerships strategies and operations, and 2) other key personnel performing day-to-day partnership operations. The difference between these two groups was that the former had the authority and could shape the firm behavior substantially whereas the latter applied the procedures. For all cases, I interviewed at least one, in general multiple senior managers. I was able to interview few project managers, because the teams were assigned to the projects, working at the customer’s site. Nevertheless, since these firms were small and the senior managers were involved in daily operations; the participants provided good insights on the phenomenon at the operational level as well.

In addition to the interviews, I collected publicly available corporate data via webpages, social and professional networking sites (Facebook, LinkedIn), corporate news and databases (Hoover’s). Since the case firms were private, publicly available data were limited. At the interviews, I attempted to gather documentation on partnerships e.g. agreements, contracts, protocols, emails, meeting minutes, written policy and procedures. For several reasons, I could not fully succeed. First, since these IT firms were small and had limited resources, they were not accustomed on documenting policies and procedures; rather they had informal and unwritten routines. Second, the firms strictly emphasized confidentiality concerns; therefore, they were not willing to submit any documentation especially on communication with partners. For most of the cases, I collected blank templates of partnership agreements, contracts or protocols; some of the
participants allowed me to review these documents only. Whenever available, I gathered organizational charts, value sheets and brochures as well.

Observations were limited to the information systems utilized for communication and cooperation between partners. The firms using collaboration systems (open source, third party applications, or proprietary systems) either demoed them or explained the functionalities and their utilization. Due to confidentiality reasons, I was not allowed to access the actual records. Observing the teams in interactions with partners was not possible due to confidentiality and the fact that the teams were absent in the office, working at the customer’s site. Nonetheless, the participants were extremely influential on strategies and operations in these business settings; therefore, information gathered via them reflected the richness and the details of the phenomenon.

5.4.1 Interview Protocol

For semi-structured interviews, I developed an open-ended Interview Protocol (Appendix F) based on a priori constructs emerged from the literature and the first phase’s findings. The protocol consisted of two parts. The first part contained two segments. The first segment concentrated on firm characteristics such as demographics, core business and sourcing methods, customer profile, technologies utilized, and competitive advantage. In that part, I explored the role of the participant in partnerships to validate the interviewee and identify further interview needs. The second segment focused on the firm’s partnership portfolio; i.e., existing partnerships with other IT firms, type of partnerships, and partner characteristics. The goal was to collect information on the firm’s IT partnerships. To save time during the interviews and pre-validate the firm’s eligibility, the participants were sent the interview protocol in advance, asked to answer the first part of the protocol, and send it back to the researcher. This expectation was not
realistic in practice; the participants preferred to provide the details during the interviews. The second part of the protocol inquired about firm’s partnership strategies, formation behavior, motivation, and comparison between local and non-local partnerships in terms of challenges, advantages, formation steps and trust building.

During the interviews, same questions were asked in different ways for confirmation and clarification. Depending on the participant’s role in partnerships and the firms’ partnership choices, the questions were tailored before or during the interview. For example, the participants without IT partnerships were asked about their past experiences and the reasons of not being engaged in any partnership. The participants with local partnerships only were questioned on their preferences and the rationale behind. The participants with local and non-local partnerships were requested to evaluate the two distinct types, and address differences and similarities.

Regardless of the type, all interviewees were encouraged to reflect the richness of their stories.

5.4.2 Data Collection Procedure

Once firms agreed to participate, the interview protocol and the informed consent were sent to the contact person. Before the interviews, I reviewed corporate web pages and publicly available information on the firm to capture the background information. At the interview, the participants were required to provide company information in their own words to understand how they identify their firms. First interviews were held with either the founders or the C-level managers (such as Managing Director, CEO, CIO, COO) responsible for partnership formation strategies at the highest level. This person became the sponsor of the study, introduced the research and the researcher to the firm, and decided whom to interview else. According to the need and the firm’s structure, succeeding interviews were held with other senior managers (such as principals, directors, VPs) and/or project managers.
The interviews were conducted between September 2010 and March 2011 with 28 participants at 11 firms. One of the firms was an offshore vendor firm. I interviewed them to acquire vendor’s perspective; this firm was not included in case study analysis. The demographics of the interviewees (such as founder status, title, and tenure) are presented in Table XVI.

All interviews except two were conducted at firm’s premises; two interviews were held over the phone as per participants’ request. The average length of the interviews was 48.3 minutes, being the shortest 14 minutes and the longest 109 minutes. In total, the interviews took approximately 23 hours. All interviews were recorded digitally with participants’ approval for transcription and archival purposes, and transcribed verbatim by the researcher latest in two days following the interviews. The transcriptions generated 391 pages of transcribed text. If available, other documents such as organization charts, samples of partnership or non-disclosure agreements, company leaflets, information on collaboration platforms were collected for analysis purposes.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Interviewee</th>
<th>Founder</th>
<th>Title</th>
<th>Tenure (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamma</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>Chairman</td>
<td>13</td>
</tr>
<tr>
<td>Gamma</td>
<td>Interviewee 2</td>
<td></td>
<td>CTO</td>
<td>4.5</td>
</tr>
<tr>
<td>Gamma</td>
<td>Interviewee 3</td>
<td></td>
<td>Client Partner</td>
<td>2.5</td>
</tr>
<tr>
<td>Gamma</td>
<td>Interviewee 4</td>
<td></td>
<td>Project Manager</td>
<td>2.5</td>
</tr>
<tr>
<td>Beta</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>Managing Partner</td>
<td>13</td>
</tr>
<tr>
<td>Beta</td>
<td>Interviewee 2</td>
<td>Founder</td>
<td>Managing Partner/ Director of Operations</td>
<td>13</td>
</tr>
<tr>
<td>Beta</td>
<td>Interviewee 3</td>
<td></td>
<td>Director of Development Services</td>
<td>6</td>
</tr>
<tr>
<td>Pi</td>
<td>Interviewee 1</td>
<td></td>
<td>President</td>
<td>7</td>
</tr>
<tr>
<td>Pi</td>
<td>Interviewee 2</td>
<td>Founder</td>
<td>CEO</td>
<td>13</td>
</tr>
<tr>
<td>Omega</td>
<td>Interviewee 1</td>
<td></td>
<td>Chief Craftsmen</td>
<td>3</td>
</tr>
<tr>
<td>Omega</td>
<td>Interviewee 2</td>
<td></td>
<td>VP of Marketing and Business Development</td>
<td>5</td>
</tr>
<tr>
<td>Omega</td>
<td>Interviewee 3</td>
<td></td>
<td>Director of Client Services</td>
<td>5</td>
</tr>
<tr>
<td>Lambda</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>President</td>
<td>19</td>
</tr>
<tr>
<td>Lambda</td>
<td>Interviewee 2</td>
<td></td>
<td>Principal</td>
<td>13</td>
</tr>
<tr>
<td>Lambda</td>
<td>Interviewee 3</td>
<td></td>
<td>Principal</td>
<td>11</td>
</tr>
<tr>
<td>Lambda</td>
<td>Interviewee 4</td>
<td></td>
<td>Principal</td>
<td>15</td>
</tr>
<tr>
<td>Sigma</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>President</td>
<td>11</td>
</tr>
<tr>
<td>Sigma</td>
<td>Interviewee 2</td>
<td></td>
<td>VP of Consulting Services</td>
<td>6</td>
</tr>
<tr>
<td>Psi</td>
<td>Interviewee 1</td>
<td></td>
<td>Executive VP / Software Development</td>
<td>5</td>
</tr>
<tr>
<td>Rho</td>
<td>Interviewee 1</td>
<td></td>
<td>COO of the parent company</td>
<td>13</td>
</tr>
<tr>
<td>Rho</td>
<td>Interviewee 2</td>
<td>Founder</td>
<td>Managing Director / CTO</td>
<td>12</td>
</tr>
<tr>
<td>Rho</td>
<td>Interviewee 3</td>
<td></td>
<td>Principal Architect</td>
<td>8</td>
</tr>
<tr>
<td>Rho</td>
<td>Interviewee 4</td>
<td></td>
<td>CEO of the sister company</td>
<td>5</td>
</tr>
<tr>
<td>Eta</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>President</td>
<td>13</td>
</tr>
<tr>
<td>Is (Vendor)</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>Managing Director</td>
<td>14</td>
</tr>
<tr>
<td>Io</td>
<td>Interviewee 1</td>
<td>Founder</td>
<td>Chairman / CEO</td>
<td>17</td>
</tr>
<tr>
<td>Io</td>
<td>Interviewee 2</td>
<td></td>
<td>CIO</td>
<td>17</td>
</tr>
<tr>
<td>Io</td>
<td>Interviewee 3</td>
<td></td>
<td>EVP / CTO</td>
<td>17</td>
</tr>
</tbody>
</table>
5.5 Data Analysis

At this phase of the empirical study, the unit of analysis was the partnership. Data were analyzed qualitatively according to the principles and the procedures detailed by Miles and Huberman (1994), Stake (1995), and Yin (2009). As data analysis strategy, I employed explanation-building, “a form of pattern-matching in which the analysis of the case study is carried out by building a textual explanation of the case” (Miles and Huberman, 1994; Yin, 2009). Moreover, I performed thematic analysis; the themes were derived from the literature, the research questions and the first phase of the study. Negative (no partnership) and polar (local vs. non-local partnerships) cases were analyzed to elaborate the phenomenon and extrapolate the firm behavior.

In a qualitative analysis, a structured approach is crucial for reliability and rigor. This approach requires that a pre-planned analysis must be applied to all cases, all decisions taken by the researcher must be recorded, all versions of instruments must be kept, and links between data, codes, and memos must be explicitly recorded in documentation (Miles and Huberman, 1994). Following that approach, I designed and applied an analysis procedure. The procedure consisted of two main categories such as pre-analysis and analysis. The pre-analysis phase included the codebook design, validity and reliability checks, preparation and settings in qualitative analysis software. On the other hand, the analysis category captured the activities of structural and pattern coding, content analysis, and within and cross-case analyses. The analysis procedure is presented in Appendix G. I utilized qualitative analysis software, NVivo 8, for the coding and the detailed analysis.
5.5.1. Coding

Coding is the main activity to frame the analysis of rich, thick and versatile case data. It is an iterative process that allows conducting a content analysis at different aggregation levels. Use of a coding framework enables contextual identification of relevant explanatory and clarifying quotes as evidence. As the analysis unfolds, coding framework needs to be modified. Researchers suggest revising the coding scheme by adding or eliminating codes and categories to reinstate a coherent scheme as new insights and relationships emerge (Lincoln and Gubba, 1985).

There are two phases of the coding activity: structural and pattern coding (Miles and Huberman, 1994). The former aims to group and summarize data segments, and to reduce the chunks; the codes are descriptive. The latter serves to grasp into the themes and allows in-depth analysis; for that purpose, the coding framework for structural coding needs to be restructured.

For the first phase of coding, I prepared a descriptive, multilevel codebook based on the interview protocol questions. To increase the validity, I organized sample coding with two other PhD students from MIS and social science domains. I defined the coding segments based on participant’s responses. Using the initial codebook, we coded the same interview independently. I compared the codes for each segment and calculated an agreement ratio, being the number of agreements divided by the total of agreements and disagreements (Miles and Huberman, 1994). The initial ratio was 54%, substantially lower than the expected percentage (85%). Hence, I have reviewed the disagreements and modified the coding scheme by regrouping, eliminating and adding codes; the modified scheme was utilized for the structural coding. During the coding rounds, the modifications continued as the existing codes converged, diverged or some new codes emerged. According to Miles and Huberman (1994), this method is similar to factor
analysis in quantitative methodology and the aim is to reduce the number of the factors or the code groups into coherent categories.

Following the structural coding, I redesigned the structure of the codebook to illustrate the patterns and the emerging relationships in data. Using that codebook, we have repeated the previous reliability check with the same PhD fellows. This time, the agreement ratio was 89%, slightly above the minimum threshold for inter-rater reliability (85%). At the second round of coding, I utilized this codebook for pattern coding. Final version of the codebook is presented in Appendix H.

5.5.2 Analysis Procedure

For each case, I performed content analysis on interviews, documents, news and publicly available corporate information. Utilizing previously developed templates, I highlighted the key concepts and interpreted them into themes at the participant level. To capture case-specific environment, I analyzed frequently used words by the participants; generic words and phrases (such as yes, no, so) and interview key phrases (such as partnership, local, non-local) were excluded from this analysis. The aim was to detect case-specific language, analogy or key words that might reflect the firm characteristics. Although this analysis yielded limited usability, I captured some interesting buzz words and metaphors. Afterwards, I aggregated this analysis at the firm level, identified common themes, conflicts, inconsistencies, and unique contributions across the interviews. At this stage, I explored the firm profile and the case context in detail. The unit of analysis was the partnership; hence, the themes were analyzed at the partnership level. The aim was to compare the local and the non-local partnerships in polarity. Finally, I prepared a case report for each case, summarizing the situational context, the themes, the conceptual factors and the findings. Based on these findings, I draw initial assertions.
For cross-case analysis, I merged the case findings, compared the themes and the patterns across the cases. Following Stake (1995), I marked utility of each case for each theme to acknowledge the case contribution to the overall analysis. This approach helped noting atypical situations and thus, context-specific factors. Common patterns were drawn across the cases; these patterns represent the basis of the research framework. Afterwards, I aggregated the case-based assertions to support the research framework and refine the propositions. Ultimately, I analyzed the negative cases, i.e., the firms not engaged in any IT service partnership, separately for alternative explanations; the outcome of this analysis provided “negative evidence”.
6 FINDINGS

Case study findings are presented in eight sections. In the first section, I describe the case contexts, firms’ partnership portfolios and technology partnerships. Although the firm characteristics (such as size, core business, location) are controlled by the design, there are nuances in terms of business and operational models among the case firms, which might influence the partnership formation behavior. Hence, describing the case contexts clarifies distinctions and unique dimensions across the cases, and helps us with identification of clusters, if any. In the second section, I elicit the case firms’ perceptions and attitudes towards partnerships to explore the rationale of their partnership formation behavior. This section discusses the findings on partner definition, partnership motivation, role of trust and trust development in partnerships, and the distinctions between local and non-local partnerships.

In section three, I analyze the impacts of the IT artifact on partnership formation decisions, namely the IT service or task subject to partnership. In this section, based on case evidence, I match the IT service characteristics with the partnership preferences, i.e., local vs. non-local partnerships. Following this analysis, in sections four and five I discuss IT SMEs’ partnership formation behavior. These sections elaborate the partnership formation in detail, showing the differences between local and non-local partnerships. This firm behavior is depicted as a process embracing partner search, selection, coordination, communication, relationship management, bonding and governance activities. The aim is to address the challenges associated with each activity and to present the mechanisms and routines deployed by the firms.

In section six, I present evidence on learning in partnerships and the impact of the organizational learning on capability development. Afterwards, in section seven, I explore ICTs role in partnership formation to evaluate alternative explanations. This evaluation is divided in
three subsections: ICTs in project coordination, project communication and service provision. Finally, in the last section, discuss the negative cases, i.e., the firms not engaged in any partnerships.

6.1 Case Contexts

6.1.1 Case Firms

Beta was a small software development firm offering customized web solutions via open source technologies. Serving mostly local and small customers, the firm applied conventional software engineering approaches and built low costs solutions; it had a national practice as well. Beta mainly insourced its services; the firm used subcontracting as a transition to hiring and partnered with other IT firms for complementary skills. Its main strategy was to sustain its employee base, and to stay small and local by all means. Substituting multiple roles, the MD, the founder of the firm, was the main decision maker; the other senior manager (and the co-founder) was responsible for the operations and the administrative issues. The firm was predominantly engineering-oriented; the management team emphasized their passion for software development and engineering.

Omega, “the most prestigious Rails shop in Chicago, a culture built upon the ability to learn, and the ability to communicate well”20 was a small software development studio. Rooted deeply in the local community, the firm provided customized web and mobile applications with an Agile approach. The management team was passionate on software development; they even created the term “software craftsmanship” to describe their attitude towards their business. Being 5 years old, the firm’s operational and sales processes were still under construction. Omega was

20 As described in one of the senior manager’s blog
selective in its relationships; alignment and cultural fit was sought in relationships with all stakeholders including customers, partners and employees. The firm preferred occasional interfim relationships that unfolded in a naturalistic way rather than going through search and selection processes. As part of their company culture, Omega implemented employee swap scheme with similar IT firms for learning purposes. All employees were encouraged to be active in community activities, knowledge creation and contribution via books, white papers and blogs.

**Rho**, a small IT consulting firm, was specialized in custom enterprise application development with an Agile approach; it also offered Agile coaching and training services. The firm belonged to a group of technology firms served by an umbrella operating company and supported by sister companies. Hence, it enjoyed the synergy within the group. Its customers were located in Midwest; the firm serves the customers located outside of Chicago from its headquarter. The team was small, but equipped with tailoring capabilities and a wide range of technology expertise. Rho preferred insourcing or staff augmentation through its sister company, but it was also open to different types of partnership settings such as non-local partnerships, and partnering with a competitor/ex-customer. In fact, the firm partnered with two management consulting firms in Chicago, acting as their software development arm. Similar to the two cases, the management team perceived software development as *art and craft, not a mechanical process*.

**Lambda** was a small-size technology consulting firm providing ERP implementation services to medium to large manufacturing and distribution firms across North America, and Microsoft solution implementation to small and medium-sized firms mostly in Chicago. The firm also offered strategic management and technology consulting services like strategic technology direction, technology selection, business process design and implementation. The founder and
the partners had extensive experience in consulting business. Lambda had a business-process-oriented consulting approach and applied its own proprietary methodology for project management and software development. In terms of software development, the firm had limited internal capabilities; thus, it utilized subcontractors and partners for commodity skills. The firm benefited from the Microsoft ecosystem for partnerships and cooperated closely with Microsoft’s independent software developers (ISV). In business relationships, their main principle was *quid pro quo*.

**Sigma** was a small, closer to medium, IT consulting firm offering custom and mobile application development services with an Agile approach; the firm offered Agile coaching and training services as well. Embracing the emerging technologies in advance, Sigma pursued an aggressive growth strategy; changing, and refining their service lines and their operational model, it has recently launched a new business line for managed services and a studio dedicated to mobile product development only. The firm served larger customers in Chicagoland, mostly onsite. Occasionally, it cooperated with customers’ other service providers including offshore firms, and led the projects. For software development, it used internal resources, augmented staff via the independent consulting community and partnered with other IT firms for niche expertise. The firm valued thought leadership and knowledge creation; it organized and sponsored events for the technology community in Chicago.

**Psi** was a medium-size IT firm (190 FTE) with multiple business lines serving to professional services firms and small businesses in Midwest; the case was limited to its software development division. That division consisted of 20 FTEs providing web development and implementation services based on Microsoft technologies. The firm operated via multiple offices across the US; the decision making body was located in Chicago. Psi applied a mixed strategy
for IT service provision; it sourced the services internally, used subcontractors and set partnerships; one of its partners was another case firm, Beta. The firm had close relationships with Microsoft and referred to this ecosystem for partnerships frequently.

**Gamma** was the largest of all the case firms, a medium-size software development firm providing customized solutions to mostly local customers based on rather conventional technologies. As a mature firm, the firm has adapted a best practice approach to software development; this approach was reflected in the organizational structure, the roles and the responsibilities, and the project team setup. Its core business was insourced; partnerships were set for the complementary services (e.g., network and hardware services) and skills (e.g., user experience design). The firm drove its business model and relationships based on values such as *making and honoring commitments, customer centric service attitude, employee satisfaction, transparency/visibility for all stakeholders, accountability and teamwork*. Gamma had won multiple awards for employee satisfaction and was very active in the local technology community and philanthropic endeavors.

One of the cases was very unique in terms of the core business. Being a small content/product provider, **Io** developed, managed, and licensed medical vocabularies for healthcare information systems. It had a unique middle tier product for search and mapping the terminology to electronic codes for billing and reimbursement purposes. The firm’s long-term goal was to position their product as a “Google-like search engine” for healthcare systems. The founder and the senior managers had extensive expertise and intellectual property in the healthcare information systems domain. Io used mainly its internal resources; for sales and implementation services it cooperated with electronic medical records vendor firms on a limited basis. The customers (such as hospitals, clinics) and the vendor partners were located across the
US. Io employed medical (MDs, nurses), technical and sales personnel, and its infrastructure was built to support distributed work across the US. Therefore, the firm was completely location agnostic.

There were two negative cases: firms did not engage in any partnerships. Pi was a small firm providing customized software development integrated with user experience design, under an Agile approach. Being a niche firm, it had few projects per year and used its own resources for service delivery. The firm was technology agnostic; its employees were cross-skilled across various technologies. It had a multicultural, “well-traveled” management team with contacts abroad. The senior managers organized and sponsored events for the local technology community, building especially on emerging technologies and Agile methodology. Pi had previous experience in partnerships including the non-local ones; however, the management was not satisfied with the performance, and strategically they decided not to partner to provide IT service.

Eta was another negative case, having different characteristics compared to Pi. It was a medium-size IT consulting firm offering custom solutions and integration services to medium and large public, private and government customers in Chicago. It had a sales office in New York as well. The firm utilized traditional software development technologies (Microsoft, Java, .NET). The firm preferred insourcing mainly. Although a Microsoft partner, Eta did not have any interactions in the Microsoft ecosystem. Partnerships were not needed for service provision, rarely sought after if it was a requirement of Request for Proposal (RFP) mainly for government customers to avoid competition in the deal.
6.1.2 Partnership Portfolios

The firms, except the negative cases, established partnerships with other IT firms for a wide range of services. For example, all firms, except Io, partnered with user experience design firms for creative development services. Since Io’s product was embedded in healthcare information systems; the firm did not need to create a separate user interface and did not form any partnership for that services. User experience design services required frequent interactions with customers and between partners. Most of the customers were located in Chicago or Midwest region; thus, the firms preferred local partners for this service. Similarly, for the services requiring either physical presence or frequent onsite intervention (such as network or infrastructure work), the firms cooperated with IT firms located closer to their customers.

For occasional software development needs, the firms referred either to subcontractors or smaller firms, avoiding cooperation with their local competitors; e.g., IT firms with similar firm profile and core business. Another alternative was to form non-local partnerships with domestic or international software development firms; this choice depended on the complexity of the development. For example, for some specific development technologies (such as Ruby on Rails) or IT consulting, the firms did not limit themselves within their locality and searched for partners nationwide. Similarly, the firms cooperated with domestic hosting providers for customer projects. Depending on customers’ needs and capabilities, the firms acted either as customers’ agent and arranged hosting services with the service provider, or they directed the customers to a qualified service provider, without taking any responsibility. To summarize, the extent and the geography of partnerships varied depending on the type of the IT service.

Similar to exploratory interview findings, the first choice was local IT firms due to convenience and trust purposes. Some firms were engaged in non-local partnerships, either
domestic or international, as well. At the local end of the spectrum, Omega partnered solely with local IT firms and local subcontractors. Beta preferred local partners in general; nevertheless, it cooperated with domestic hosting providers as well. Rho and Sigma partnered with the local firms; at the same time both were interested in working with offshore partners from India: Sigma chose an offshore partner as a future growth option, and Rho agreed with an offshore firm on principle. For both cases, partnerships were not materialized in customer projects yet: Sigma tested the offshore partner for its internal development projects and was confident on the outcome. Rho evaluated a software development firm from Ohio to partner in projects requiring niche skills such as Ruby on Rails development.

Out of eight firms, Gamma, Lambda and Psi had non-local domestic partnerships. For example, Gamma partnered with a non-local hosting firm in Texas. Psi formed partnerships with small software development firms outside of Chicago, closer to its offices across US. Lambda had the most versatile partnership portfolio: a global ERP vendor and several Microsoft partners, ISVs, located across or outside the US. Additionally, these firms partnered with international IT firms for non-complex or product enhancement/customization (commoditized) type of software development.

At the other end of the spectrum, Io, a product firm, had vendor partners located across the US. The relationship with the vendor partners was based on product integration only, which required limited interactions, thus, coordination and communication between partners. Therefore, the firm was location-agnostic in its partnership choices. Table XVII describes the partnership portfolios of the case firms.
TABLE XVII. Partnership Portfolios

<table>
<thead>
<tr>
<th>Firm</th>
<th>Gamma</th>
<th>Lambda</th>
<th>Psi</th>
<th>Io</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships</td>
<td>Local/ domestic/international</td>
<td>Local/ domestic/international</td>
<td>Local/ domestic/international</td>
<td>Local/ domestic</td>
</tr>
<tr>
<td>Local Partnerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partners</td>
<td>2-3 small firms (10 - 50 FTE) (2-10 years of experience)</td>
<td>Micro firms/individuals (Long-term relationships)</td>
<td>2-3 small firms (MS partners) (Long-term relationships)</td>
<td>6 large, 19 small EHR vendors (local and domestic in total)</td>
</tr>
<tr>
<td>Services</td>
<td>User experience design, network solutions</td>
<td>Microsoft development, infrastructure solutions</td>
<td>Software development</td>
<td>EHR product integration</td>
</tr>
<tr>
<td>Task Specifics</td>
<td>Creative work, proximity to customer and physical presence required</td>
<td>Complex development, onsite work and physical presence required</td>
<td>Complex and non-complex development</td>
<td>Procedural, remotely-rendered deployment</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
</tr>
<tr>
<td>Non-local Domestic Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partners</td>
<td>1 firm in Texas</td>
<td>2-3 large ISVs across the US (app. 8 years of experience)</td>
<td>2-3 small firms across the US</td>
<td>6 large, 19 small EHR vendors (local and domestic in total)</td>
</tr>
<tr>
<td>Services</td>
<td>Hosting</td>
<td>Product development and customization</td>
<td>Software development</td>
<td>Product integration into EHR</td>
</tr>
<tr>
<td>Task Specifics</td>
<td>Procedural, remote service provision</td>
<td>Non-complex development</td>
<td>Complex and non-complex development</td>
<td>Procedural, remotely-rendered deployment</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
</tr>
<tr>
<td>Non-local International Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partners</td>
<td>1 Indian firm (100 FTE) (2 years of experience)</td>
<td>1 Indian firm (medium-sized) (7-8 years of experience)</td>
<td>1 Indian firm (200 FTE) (3 years of experience)</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>Software development</td>
<td>Software development</td>
<td>Software development</td>
<td></td>
</tr>
<tr>
<td>Task Specifics</td>
<td>Non-complex development</td>
<td>Non-complex development</td>
<td>Non-complex development</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td></td>
</tr>
<tr>
<td>Firm</td>
<td>Rho</td>
<td>Sigma</td>
<td>Beta</td>
<td>Omega</td>
</tr>
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<td>----------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Partnerships</strong></td>
<td>Local / domestic and international prospects</td>
<td>Local / international prospects</td>
<td>Local / domestic</td>
<td>Local</td>
</tr>
<tr>
<td><strong>Local Partnerships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partners</strong></td>
<td>1 small firm, 2 large management consulting firms, sister firm (Long-term relationships)</td>
<td>2 small firms and individuals</td>
<td>a. 2 small design firms (5 years of experience)</td>
<td>2 small firms and individuals</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>User experience design, software development</td>
<td>User experience design</td>
<td>a. User experience design</td>
<td>User experience design, software development</td>
</tr>
<tr>
<td><strong>Task Specifics</strong></td>
<td>Creative work, proximity to customer required</td>
<td>Creative work, proximity to customer required</td>
<td>a. Creative work, proximity to customer required</td>
<td>Creative work, proximity to customer required</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
</tr>
<tr>
<td><strong>Non-local Domestic Partnerships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partners</strong></td>
<td>1 firm in Cincinnati</td>
<td>2 firms of various sizes (2-4 years of experience)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>Software development</td>
<td>Hosting</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task Specifics</strong></td>
<td>Complex development</td>
<td>Procedural, remote service provision</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>Under negotiation</td>
<td>Active</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-local International Partnerships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partners</strong></td>
<td>1 Indian firm</td>
<td>1 Indian firm (app. same size)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>Software development</td>
<td>Software development</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task Specifics</strong></td>
<td>Non-complex development</td>
<td>Non-complex development</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>Under negotiation</td>
<td>Under negotiation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.1.3 Technology Partnerships

A special type of partnership observed frequently was the technology partnerships, i.e., reseller or channel partnerships, with technology suppliers such as Microsoft, Adobe, Oracle, IBM etc. In these relationships, the focal firms acted wither as a reseller or a service provider/implementer for the technology supplier. In fact, none of the case firms reported being a reseller; Psi, Lambda and Sigma were active Microsoft service providers. Lambda partnered frequently with the ISVs, Microsoft add-on providers, as well.

Yes, ISV. There is a tone of solutions out there that work with CRM and GP and AX. They might sell into a deal to solve a specific need. So, you are selling their solution as part of your total package to the client. And so, you actually use the term partner, just like we are a MS partner. You become a partner with them to sell their solutions being able to demo it, talk to it, etc. Lambda, I2

Although, I have excluded these partnerships from the scope of the study, data suggested that these partnerships were important for IT SMEs. First, IT SMEs utilized the tools, platforms or technologies provided by these suppliers for relatively lower costs or free. Second, the technology partnerships were perceived as industry certification by the market; therefore, these relationships were important vehicles for IT SMEs’ legitimization purposes. Third, the technology suppliers had launched partnership programs, offering an ecosystem for further cooperation across its members. In a sense, the technology partnerships triggered partnership formation between IT firms, including the non-local ones. Therefore, this ecosystem corresponded to organizational proximities between partners. This setup was specifically pertinent to Microsoft. For example, Psi and Lambda were very active on this platform and described Microsoft ecosystem as a reliable source for partnerships.
The abovementioned findings depicted the contexts of the firms’ perceptions and attitudes on non-local partnership formation. In the next section, I present findings on the firms’ perception and attitudes towards partnerships.

6.2 Perceptions and Attitudes towards Partnerships

6.2.1 Partnership Motivation

Partnership motivations reported were similar to those found at the first phase with three categories: 1) Resource- or competency-oriented motivations, 2) Efficiency-oriented motivations, and 3) Strategic positioning-oriented motivations. Firms identified partnerships as strategic vehicles for resource management: staff augmentation and skill set completion. Staff augmentation strategy provided them resource buffers for large projects where the workload would significantly decrease at the end. Forming non-local, especially international partnerships, the firms could offer cost-efficient services to their customers and yet compete with their larger peers. For some cases, acquiring these skills was a necessity for the project; in other cases firms wanted to offer new services as an add-on. Finally, the participants identified partnerships as additional sales channels; thus they selected the partners based on their potential and willingness to exchange business. This approach was deemed as productive especially for complementary services. Using the same categorization by Colombo (2003), Table XVIII presents partnership motivation types.
### TABLE XVIII. Partnership Motivations

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Purpose</th>
<th>Sample Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource- or Competency-</td>
<td>Service/Talent Complementarity</td>
<td>More of our partnerships are with firms that have complementary capabilities, not competing capabilities and we are bringing each other into the client is really non-competitive thing. It is more how can we help each other to grow, we offer complementary service offering. <em>Sigma, I2</em></td>
</tr>
<tr>
<td>Efficiency- oriented</td>
<td>Enhanced Service Offerings</td>
<td>[Partnership] It increases the number of services we can provide to our clients. So for example, if we are building a new custom software development application and there is a large BI component to it, we don’t have a lot of in-house BI expertise, but we have a partner that does provide a lot of those, focusing on those services. So we can bring in them for that component of the project, still deliver the holistic solution while being able to focus on the things that we are good at. <em>Sigma, I1</em></td>
</tr>
<tr>
<td>Strategic positioning-</td>
<td>Peak and Valley Management (Resource Management)</td>
<td>And it is really kind of big project and we know that at the end of that project, our workload is going to be pretty significantly decreased, then we use contractors to help level up the workload so that we don’t have to let people go or lay people off at the end of the project. So, we use contractors as a buffer for really large projects. <em>Rho, I3</em></td>
</tr>
<tr>
<td></td>
<td>Business Development</td>
<td>One would be lead generation. One would be us to being able to get the foot in the door at clients that they have, to offer either a complementary service or to fill the gap that that partner has with that client. <em>Sigma, I2</em></td>
</tr>
</tbody>
</table>

### 6.2.2 Being Partner

Participants were asked about what *being partner* meant. Confirming exploratory interview findings, data introduced several metaphors for partnerships such as *marriage, friendship, living organism, going into bed,* and *quid pro quo.* The mutually accepted property of being partner was the joint value creation; a participant differentiated a partner from acquaintances by integrated service offering, i.e., co-branding.
Partnership is not just sharing leads, partnership is something deeper than that. You don’t have a partnership, unless you are marketing it together. [ ] First to have a partner, that you feel, you know, sort of integrates to your services in a way that it is unique to your marketplace and you want to sell that unique combination of your collaborative services, market it, talk people about it, I think, that is the point you have true partnerships. Beta, 11

Based on this concept, the case firms perceived partnerships as long-term investments where they invested in the relationship both financially and intellectually, and built trust in the long run. This finding confirmed the importance of trust in SME partnerships, regardless of the type.

Think about a company like ours is that to construct a partnership and to maintain it, this is investment. Sometimes, always in time, it is an intellectual bandwidth, how we design this, how to solve the problems. We have to invest in money too. We have actually to turn to market, market of collaborative services as more offered to the market place and it is investment of money. [ ] So it is investment in all of these dimensions. Beta, 11

6.2.3 The Role of Trust in Partnerships

Regardless of the type, all participants underlined the importance of trust in SME partnerships; this finding complied with exploratory interview findings and the literature. Although the firms designed and signed agreements with non-compete, non-disclosure and non-solicitation clauses, they governed their relationships based on trust as the literature posited. The key finding was that in this technology-based relationship, trust in partner’s technical competency was necessary but not sufficient; having trust in partner’s values (such as being honest and transparent, keeping commitments, not competing and endangering firm’s customer ownership) were more fundamental in a relationship.

Trust in that they are representing themselves fairly and honestly. Trust that they would do what they say they are going to do. Trust in the, during the contract negotiations. Lambda, 13
It is important from not a nondisclosure agreement but from a competitive, non-compete standpoint. So it is important that we have a level of trust that we know these guys aren’t going to around our backs to establish direct relationship with the client. *Sigma, 11*

The firms have built trust with partners over time via repeated interactions and project experiences, through good and bad times. For SMEs, the number of joint projects was low thus, the majority of the participants relied on referrals, “stamps” by the known parties (such as customers, other partners, employees and networks) as the prerequisite of trust development. In case of non-local partnerships, *meeting management team in person, checking whether they are the people they said that they are in terms of capabilities, finding no differences between on paper and live information* were essential for trust building. Nevertheless, at some point, the firms felt the urge to take the *leap of faith* and started cooperating. This approach complied with Larson (1991)’s perspective on partner networks.

So first was someone I have known for long time have used them [offshore partner] before. So that stamp came right away. And then I build the trust by talking to them, getting comfortable with them, meeting the management team and only in those conversations you can actually get pretty good feel for what the company is about and how you would interact with them, they would interact with you. *Psi, 11*

Findings empirically proved that there were no substantial differences between local and non-local partnerships in terms of trust development process. The only discrepancy was that trust development took longer in the non-local partnerships since there were fewer opportunities to have FTF time together to interact and collect information on each other. Moreover, due to liability of smallness, SMEs had fewer joint projects to test the non-local partner.

Because they are not closer there is less FTF time and so you’re trusting and hoping that what you have been told is actually true and because there is less instances to test whether it is real, it becomes a little bit risky. [ ] If it was more local company you’d be testing a little bit more, they are probably more known to you just from the industry, so there is a bit less risk but I guess because we are value driven and principle driven it wasn’t that different. *Gamma, 12*
6.2.4 Local Partnerships vs. Non-Local Partnership

The case firms perceived local and non-local partnerships as tools serving different purposes and differentiated their attitudes accordingly. As one of the participants marked-

We use them very differently. I wouldn’t say that there is pros and cons. I would say that they are different tools for different jobs. I wouldn’t use a screwdriver to hit a nail on the block of wood, I would use a hammer. And I wouldn’t use a hammer to drive the screw in a wall. I wouldn’t say that I can compare a screwdriver and a hammer, they are just different tools that we use for things. Gamma, I3

Confirming the exploratory interview findings, the firms engaged in local partnerships were motivated by convenience; local partners were known and trusted parties owing to network affiliation and community interactions. Networking and vetting out partners required less efforts; the abundance of similar IT firms in Chicago simplified search and replacement of a partner. There were more opportunities for FTF contact; thus, there was less friction in communication and coordination. As a side benefit, local partners had a better understanding of the local market for joint business development and might have the potential to exchange business leads.

On the contrary, in non-local partnerships, there were multiple challenges due to geographical, temporal and cultural distances. These partnerships required more effort, time and capabilities to build. In terms of partner search, unknown markets were difficult to explore and network for the resource-constrained SMEs. For some firms, forming non-local partnerships was more bureaucratic compared to the local ones; many approvals were necessary to initiate a non-local partnership. Firms had concerns about efficiency in communication, project management and knowledge transfer. Finally, in non-local partnerships resource planning was complicated. The firms needed to embed slacks in their time plans to cover possible reworks and workarounds. As a side effect, the firms could not receive business referrals from non-local partners. Details are discussed in the next sections.
To understand the drivers of non-local partnership formation, I explored when and at what point IT SMEs considered forming non-local partnerships. The data revealed that there was no clear tipping point in the firm’s life cycle, in terms of size or age. In fact, one of the firms, Lambda, worked at its very first project with a distant partner for a customer located in another city. In that case, senior managers’ orientation, background and experience played a role.

[On trajectory] There was no dimension to it in that regard. In fact, my very first client in the very first three months of founding the company in 1992, I worked with a company in India to deliver a project in Alabama. My customer was a British firm with a manufacturing business in Alabama and the software firm was in New York and I worked with some developers in India too, when I was in Chicago to deliver on it. So, as I said, I worked with Indian programmers and developers in college, so I was familiar with them and wasn’t an issue. *Lambda, I1*

The majority of the non-local partnership formation decisions were driven by external factors such as customer demand, competition or availability of resources: either the customers asked for lower cost options or the firms felt pressured to lower their costs.

There are some situations where in a RFP or it may be clear that a client expects development work to be done offshore. *Rho, I2*

The search is triggered about 3 years ago, when we realized that in order to remain competitive we needed to offer our clients an option for commoditized development for the simpler pieces of our projects. So, in order stay price competitive, we needed that option. *Sigma, I1*

Another trigger was the lack of a specific skill in the local area. For example, that situation occurred with Ruby on Rails development in the last years in Chicago area; since this talent was not widely available in Chicago, Rho initiated a national search. Conversely, since Microsoft technology-related skills were in abundance in Chicago, the firms did not need to expand their search outside of their regional boundaries.
The analysis suggested that this trajectory was driven by the IT service type. For example, for hosting services, local partnerships did not necessarily mean synergy and convenience; hence, partnering with a non-local firm was a quick switch. On the contrary, for creative services such as user experience design, the firms were hesitant to switch to a non-local partner due to aforementioned problems. In that segment, especially the firms serving to larger customers considered engaging in offshoring relationships. Some of their customers were already working with the offshore firms; these customers were expecting the focal firm to be involved in these cooperation schemes directly or indirectly.

6.3 The Role of Information Technology Service in Partnerships

A novel finding of this empirical study was the impact of IT service type on partnership choices. Through the narratives, several IT service characteristics emerged: standardization, complexity, creativity, culture-specificity and physical presence requirement. Provision of some services, such as IT consulting or innovative development, was not standard; instead, it involved case-specific judgments and spontaneous decisions. On the contrary, provision of some other services, such as hosting, was well-defined, structured and procedural. Complexity was highlighted as another distinct characteristic. Business-centric IT services, such as business analysis, were complex; thus, they required knowledge on multiple business functions or domains. Contrarily, configuration, coding or bug-fixing services were non-complex. Participants described some services as creative and non-routine. These services included a design component, e.g., user experience or process design, and each design project was unique and context-specific. On the other hand, some other services like application testing were routine and repetitive. Network design and implementation services necessitated the service provider be physically present at customer premises for immediate intervention, whereas hosting or EDI
services could be rendered remotely. Finally, user experience design services were identified as culture-specific, i.e., service provision was unique for a specific culture or demographics; the service providers were required to understand these nuances. Other types of development services were non-culture-specific.

In general non-standard, complex, creative, physical presence requiring, and culture-specific services necessitated frequent interactions with the customer and between partners. These types of services were categorized as high-touch work; they favored proximity to customer premises. Since most of the customers were located in Chicago, the firms tended to choose local partners for these services.

[User design] That work tends to be a little more, high touch work meaning that I want someone sitting in front of the client, ask them questions, read their body language, read back what they just said, do those things that you really would want to do it in person. I’d be reluctant probably to do that work with an offshore partner. Gamma, I3

On the contrary, procedural, non-complex, routine, remotely rendered and non-culture-specific services could be performed offsite, even by a non-local IT firm. Defined as commoditized services, these services were candidates for non-local partnerships. As one of the participants described-

On x axis, it has a measurement of technical complexity for a project and on the y axis measure of social complexity of a project. And the whole idea is if the project has relatively low technical complexity and low social complexity, meaning that there is agreement by everyone on what has to be developed socially and politically, everyone is in line, that there is no question. If the project fits both of these characteristics, it is offshorable. But if there is a large degree of technical complexity in a project, meaning there is new technologies are unknown, there is going to be a need of ramp up, there is going to be a little bit of research involved, or if there is high social complexity, meaning that there is no agreement by the business on exactly what the solution is going to look like, there is low buy in from stakeholders, if they exist, we usually keep it domestic. Sigma, I1
Table XIX summarizes the relationship between IT service characteristics and partnership preferences.

**TABLE XIX. IT Service Characteristics and Associated Partnership Preferences**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Example of Service</th>
<th>Partnership Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-standard vs. Procedural</td>
<td>Innovative Development IT Consulting</td>
<td>Local</td>
</tr>
<tr>
<td>Non-local</td>
<td>Hosting</td>
<td>If there is any sort of innovation required with the requirement, if there needs to be a series of tight conversations with the business, if product needs to be developed iteratively, if there is any ambiguity on what is actually going to be built, then we keep it local, both with our team and with any partner that we would bring in. <em>Sigma, 11</em></td>
</tr>
<tr>
<td>Complex vs. Non-complex</td>
<td>Business Analysis</td>
<td>Local</td>
</tr>
<tr>
<td>Non-local</td>
<td>Configuration / Coding / Bug-fixing</td>
<td>Another differentiator of ours is the business logic intensive type of work that you need to keep close to home for collaboration reasons. <em>Sigma, 12</em></td>
</tr>
<tr>
<td>Creative vs.</td>
<td>Process Design / User Experience Design</td>
<td>Local</td>
</tr>
<tr>
<td>Non-local</td>
<td></td>
<td>There is a couple of resources that we do have functional consultants meaning that they are not developers, they work with configuring software, doing process design work, that kind of stuff. [ ] They tend to be always on site because it is ineffectively to do the process design work and implement software remotely. <em>Lambda, 14</em></td>
</tr>
</tbody>
</table>
Last but not the least, the product partnerships presented a unique case compared to other service partnerships. Io, the product/content provider, partnered with EHR vendor firms to have their product integrated into the health information systems. Since Io provided the content and the vendor firm was responsible to implement it into the EHR, the extent of the cooperation was limited. Content updates were procedural, thus, could be remotely performed. From a similar perspective, Lambda cooperated with Microsoft ISVs, add-on or product providers, to embed their solutions into customer applications. Depending on the product complexity, the cooperation
was limited to some level of consulting and technical support. Therefore, for those firms, location of the partner was not a concern.

No, we don’t care [where they are located]. Because from those people, we are just going to get a piece of software, and we are getting some consulting help and some technical support, but nobody does technical onsite anymore. \textit{Lambda, I2}

Having reviewed the case contexts, firms’ perception and attitudes towards partnerships, and the role of IT service, in the following section I analyze the findings on actual partnership formation behavior.

\textbf{6.4 Partnership Formation Behavior}

Partnership formation was not a frequent practice for the IT SMEs. All case firms indicated that though extremely important for their business models, partnerships were occasional or rare in the SME world. One of the reasons was that the IT SMEs run fewer projects per year and not all projects required to cooperate with other IT firms, due to size and requirements. Thus, the firms did not have many projects in the pipeline to satisfy the volume requirements of multiple, active partnerships. Instead, these firms tended to form a small number of stable interfirm relationships.

We have primary partners that we use for specific things. Yes, we have a pool of people that we do use and can use. [ ] I would say 2 or 3 primary maybe. \textit{Gamma, I3}

The participants stated that partnership formation was identical to relationship development, especially for the first-time partnerships, where partners continuously and incrementally constructed the relationship. Participants described this process using analogies such as dating (Gamma), rhythm setting (Gamma, Omega), marriage (Beta), or making a friendship (Omega).
It is similar to dating. Just like when you date someone for the first time, you want to be careful. You want to schedule something that might not be a super high risk engagement. You want to start with something to get to know. So you both get to know each other. You set a rhythm, and then later on the more you feel comfortable, it is easier to engage, the expectations are set, you don’t have to reestablish the same baseline every time. I would call kind of dating. *Gamma, I3*

Findings confirmed that these small firms did not have any established partnership infrastructure such as dedicated functions, established policies and processes, and tools. Usually, they had informal routines and mechanisms derived from senior managers’ individual experiences and inspired by environmental factors such as customers and competitors. Partnership decisions, especially the initial hand-shake, were made by a small group of senior managers. Depending on the firm size, this decision making authority might be seized solely by the head of the firm. On the other hand, operational issues such as project management, coordination and communication activities were delegated to the technical level.

To analyze partnership formation construct and related capabilities, I adapt a process approach as discussed in the previous sections (Ring and van de Ven, 1994; Doz, 1996; Weerawardena et al., 2007). The formation steps include partner search and selection, design of cooperation, coordination and knowledge transfer throughout the project, communication during the project, governance, and bonding outside of the project. Findings on each step are presented below. Figure 2 shows the high level process framework for partnership formation.
6.4.1 Partner Search and Selection

The findings suggested that to identify the partners, the IT SMEs performed different search and selection activities for the first-time and continuing partnerships. For the first-time partnerships, they adopted two different but complementary approaches. Primarily, they made acquaintances or built ties with other IT firms while interacting with customers, recruiters, employees, and associations. This familiarization happened in a naturalistic and opportunistic manner; the participants stated that mostly there was no active or planned search activity involved. As the firms had more opportunities to interact with these acquaintances, some of these nodes were converted into friends and later into partners.

All of our partnerships happened kind of naturally or organically these kinds of actions were made between people and then it just kind of grew from there. *Omega, I3*

By doing so, the aim was to create a small pool of trustworthy, known IT firms with complementary skills. When the need has arisen, the SMEs could refer to this pool, select the partner according to project requirements and cooperate.

*We have got partners that we have in our back pockets with different areas of complementary services. [ ]*  
Typically the relationship with the firm is almost always has been created before the need arises. *Sigma, I1*
What we have done is all those years; we tried to create sort of pools of people. [ ] So, we know who all the main players are. [ ] And then like I said, once we know them which most of ours is a long term one, we only try to go with the ones that we know. *Lambda, I4*

As a second option, if there was a specific demand for a new or niche IT skill or service, which could not be performed by one of the networked firms, then the SMEs initiated a new partner search.

Sometimes, there are very specific skills; we end up doing national searches for that kind of people. For example, we do the project right now that we are working on, it requires a specific language called XXX; it is an IBM product. Those kinds of people are difficult to find and we ended up doing a nationwide search for people with these skills. *Rho, I3*

Both to create the pool of preferred partners and to search for an IT firm with a specific skill, the firms mostly relied on grassroots knowledge and referrals by customers, employees, other partners or contractors, networks and local communities. The “stamp” of an affiliate was a strong endorsement for the potential partner. To partner with an unknown firm was considered too risky and tedious for the SMEs.

And I don’t partner up with them for two reasons. One I don’t know them; I don’t know the track record. [ ] And I am sure those partners who are calling me unsolicited will add value, but I don’t know them and that adds higher risk and as well as too much work to establish a partnership. *Psi, I1*

Some firms organized or sponsored technology activities and user group meetings in their local area, or participated to the activities of local technology associations; these events were deemed as convenient platforms to meet potential partners. The firms that were active in technology ecosystems (such as Microsoft Partner Platform) found their partners through these networks, technology conferences or user group meetings. As another option, the firms belonging to a group utilized their sister firms’ networks for partner search. For example,
Rho benefited from staff augmentation services of its sister firm. Table XX presents examples of potential partner sources.

**TABLE XX. Potential Partner Sources**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sample Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals by Known Parties</td>
<td>Typically, I only search for partners that are referred or recommended by people I know. So, the people I know might be a client, could be an employee or could be an existing partner. They have to come through one of these channels. <em>Psi, I1</em></td>
</tr>
<tr>
<td></td>
<td>So, we find them from a couple of different places. One is referrals. Referrals from either FTEs, our current contractor network that we are working with, our partners, partner firms, other professional contacts or clients. Sometimes our customers will refer great people to come on board with us. <em>Sigma, I2</em></td>
</tr>
<tr>
<td>Microsoft Ecosystem</td>
<td>Microsoft has a website, you can go and look and you search by a specific need. And then we are going to MS conferences, you know, they have boots, like a tradeshow raid. They got all stuff set up, so you learn about them that way. <em>Lambda, I2</em></td>
</tr>
<tr>
<td></td>
<td>So, typically if Microsoft ecosystem comes in, I always have the discussion at least whether it goes anywhere, because it may be meet my first criteria. <em>Psi, I1</em></td>
</tr>
<tr>
<td>Community Interaction</td>
<td>We are really active in the local communities. One example is we sponsor series of meetups. Every month, we have a meetup basically for each one of our service lines. We use those forums to kind of interact with community and build our network of folks. So, if we need to go outside, we have a pool of people to pull up. <em>Sigma, I1</em></td>
</tr>
<tr>
<td></td>
<td>We are also active in ITA and we are very active just like there are lots of user groups, technology groups on people meet on regularly to learn about specific technologies, we are very active in those communities. That is where people kind of get to know us. And sometimes the partnerships grew up out of that. <em>Omega, I3</em></td>
</tr>
<tr>
<td>Conferences</td>
<td>We’ve became aware of them at conferences for the most part. You find out who the players are at ERP conferences. <em>Lambda, I1</em></td>
</tr>
<tr>
<td>Recruiting Function</td>
<td>Our network is really a network that is comprised of our recruiters, they each have a network. And our delivery staff has a network. So between those two parties, they have pretty good where they want to go for talent. <em>Rho, I1</em></td>
</tr>
</tbody>
</table>
Having identified the potential partners, either for the pool or directly for the project, the firms applied informal and unstructured practices and routines to assess and select partners. For instance, the focal firms performed quick, informal background checks and technical interviews to assess the partner’s technical skills. If available, case studies and public-facing products were evaluated. Highlighted selection criteria were skill sets; complementarity of the business models; match in terms of size, values and methodology; credibility; and lead generation potential of the local partners. Following that screening, the leaderships of both firms met, and the partners started a trial period through small and less risky projects.

In terms of eventually selecting them and working with them, there would be a lot of meetings between the leadership of that firm and our leadership to talk about what our needs are, what kind of projects we work on, to learn about from them what they work on, what kind of projects they work on, how they operate, what kind of services they provide and essentially establish trust at that level of the company enough so that we will be willing to try an experiment. *Omega, I3*

Some firms had a more structured and established approach to partner selection compared to others. Even though the selection was based on the same depth of technical information, discussions with the potential partner or background checks were more exhaustive. These firms spent more efforts to understand a partner’s model and value contribution to the customer. More than one senior manager was involved in the selection; thus, the decision was not at one person’s discretion. One of the case firms set internal accountability and ownership for partners. The depth and breadth of the selection process seemed to be influenced by the senior managers’ background, orientation and experience. Initially, these firms had the partner signed a Non-Disclosure Agreement (NDA) since they might need to disclose confidential information during the trial phase. Ultimately, the partners signed agreements on terms and conditions of the partnership. To summarize, the firms with more structured search and selection processes were the ones engaged in non-local partnerships, as the ones below.
What I do is to meet with them to see what value for example as a partner what are you going to bring to me, what I am bringing to you. It is a natural frame; I go out to help each other. If I do that, then we send the NDA, then we have the detailed discussions, where we are going to flesh out the offering, what are we going to offer to your customers so you are going to offer to my customers, we will price it, how we are going to deliver. We can flesh that out from that side and I probably bring a senior member of my team involved so they can give me a kind of second opinion in agreeing my decision. And if they agree that "Yes it is a good partnership" then I start the services agreement, so I will provide legal documents to their legal counsel and to our legal counsel to say “Now listen, let’s put everything we discuss on paper”. The arrangements, the fee arrangements or the services we are going to offer or how we make it a legal document so that both of our interests are protected. *Psi, 11*

If we are going to add any partner we would, they would be introduced to the leadership team. We first need a partner in a certain area and then who is going own and be accountable for assessing the partnership, and what are we going to, how we are going to know and measure what we are looking for a partner. So we then assign that role to someone and the success criteria and then they will go out and do the first wedding and they may include others in the interview and ultimately they make a recommendation that “we should have this partner”, and the leadership team of [Gamma] would ultimately say, negotiate the partnership. [ ]

We’ve done this a few times, it is not, it is not something we do every day. But it is something that everyone is aware. We can’t just go partner with any company. *Gamma, 11*

For the continuing partnerships, i.e. partnerships with previously cooperated IT firms or pool firms, the SMEs referred to their small partner pool instead of initiating a new partner search. All of the participants reported that they preferred to work with their previous, known partners when a partnership possibility occurred.

Like I said if there is a chance for us getting a project now and we have to actually go out and find a brand new partner at this point is very, very rare. We are pretty much already have that lined up. We know whom to go in certain situations; we probably always work with them before. It is not a terribly dynamic event for us. *Lambda, 14*

Doing so, the firms saved the search efforts. Since they already knew the skillsets of the partners in the pool, the selection activity corresponded to reassessment of existing partners’
capabilities and resources to match with project requirements, and identification of the most appropriate partner with available resources and lowest cost.

The criteria that we are going to use probably their availability, if there are match in terms of what we need to accomplish probably the only decision criteria is what is the cost and availability if all things being equal two are available, whichever one we get a lower rate to improve our margin is probably who will go with.

*Lambda, I4*

### 6.4.2 Coordination and Knowledge Transfer

Having initiated the project, the focal firm was responsible for project management, resource allocation and the deliverables. If the partner was brought in by the customer, the customer led the project; focal firm was in charge of managing the project from technical development perspective only. The important finding was that degree of coordination between partners depended on the underlying IT service. In the partnerships with the product providers like ISVs and EHR vendor firms, interactions between the partners were limited. Similarly, for the hosting services, coordination need was limited; the relationship was driven by the service level agreement and the procedures and there was no project management concept involved.

Usually it depends what the software is doing. Like there is one that just does the integration. So it is just a tool to integrate different platforms. So, somebody has some data over here and you want to put it into Microsoft CRM. Well, that’s really not a big thing. [ ] If it is something different where you say “hey, this is a configurator tool where we are going to use it in the front end to configure an order” or if a business user can attach it, the business user is going to see it, then they [partners] are probably involved. *Lambda, I2*

On the contrary, for development and creative services, the integration requirement was relatively higher; the services performed by the partner had to be effectively coordinated. Managing the development project, focal firm was responsible for coordination, project communication and quality assurance. The firm gathered the business requirements, performed system analysis, prepared the specifications and transferred them to the partner. Following the
development, the partner delivered the code, the program or the interface; the deliverables were always submitted through the focal firm’s project manager. Depending on the sophistication of development, the firm might run additional tests and integrate it into the system. To summarize, especially the partnerships set for creative services required close coordination with the partner; therefore, the firms exerted extensive project management efforts.

### 6.4.3 Communication

Communication requirement was determined by the type of IT service and the technology utilized. For development services, frequent and extensive communication was necessary whereas for hosting, configuration or maintenance services, it was sufficient to manage the communication via documentation and ICTs. On another note, in development services some development paradigms such as Agile methodology, required close collaboration and high level of interaction, thus FTF and frequent contact between the parties. Therefore, the firms preferred close proximity and collocation with the partner.

In general, the firms preferred FTF contact with their partners for convenience reasons; they used to communicate with the partner via whiteboarding, paper prototyping, and FTF demoing. Local partnerships offered this convenience; the firms could easily organize meetings at short notice and save travel costs. Depending on the content and the context, the firms utilized wide range of ICTs (such as conference and video calls, email, chats, web meetings) as well. Nonetheless, the majority of the firms report to utilize ICTs for relatively unambiguous, structured or explicit information sharing, as a supplement to FTF communication. The details of ICTs in communication are discussed in the following sections.
6.4.4 Governance

Data suggest that the main governance mechanism in SME partnerships, especially for the local ones, is trust.

We have nothing in place with them [design partners], with them it is just a handshake. *Sigma, 12*

However, the firms created standard frameworks to protect their assets such as know-how, proprietary methodology, customers, employees and other confidential information. There were four categories of documentation signed at different stages: 1) Non-disclosure Agreement (NDA) at negotiation phase (re-signed when NDA expired), 2) Master Agreement at partnership formation phase (signed once), 3) Statement of Work at project phase (re-signed for repetitive projects), and 4) Service Level Agreements at partnership formation or service delivery phase (no information on resigning).

The NDA was the basic agreement that served to protect the firm’s confidential information; potential partners were required to sign it before the negotiation stage. One participant reported that the industry practice was to renew the NDA every 3 to 5 years. Though the wording might vary, all firms had a template for NDA in place. Some firms signed a master consulting agreement with the partner at the formation phase. This agreement was designed to organize general working conditions in an interfirm relationship like liabilities, non-solicitation, non-compete clauses, termination rights, warranties, indemnifications, insurance etc. Firms that enforced the partner to sign a master agreement had several partnerships including the non-local ones. Some firms distinguished the partnership-level governance from the project-level; they prepared an additional agreement for each project or service rendered by the partner. This document, Statement of Work, defined the details of the project such as responsibilities, deliverables, methodologies, timelines and billing scheme. Nevertheless, all of the agreements
were tailored according to the partner and the project. Finally, for commoditized services such as hosting, the firms signed service level agreements with the service providers; usually the content was shaped by industry standards.

Any contractor we do, the client, or partner even a firm that’s selling services to us, we have a master services agreement what we call a master consulting agreement that would define the terms how we are going to work together, what are the termination rights, what are the nondisclosure terms, what is the, what are the things that might cause a breach of contracts. Those are things spelled out in the contract. And there is usually statement of work that says “Now, all that aside we are going to work from this month to that month, this is going to be the rate, these are the people and then nitty gritty details. [ ] One of them governs the relationship, and the master services agreement will govern the relationship. The statement of work will govern the specific project that is laid out. *Gamma, I3*

### 6.4.5 Relationship Management and Bonding

The interviews unfolded the fact that SME’s interfirm relationships were built, maintained and fostered at a personal level. The employees or the managers might meet at the social events or have commonalities such as living in the same neighborhood, being the member of the same alumni association, visiting the same church or having children at the same school. These social affiliations increased the possibility of bonding between partners. However, bonding was not limited to socialization. Data analysis showed that the firms bonded with their partners in order to strategize together; i.e., to exchange expectations, get feedback, review market information, align their business perspectives and discuss future cooperation opportunities.

It is really just to keep in touch with what, where they are headed, what are their expectations, what their satisfaction is with the partnership. The partner company, that’s a living real organism that changes and has its own ideas, objectives that may change quarter to quarter or year to year. Understanding that usually that works at dinner, tradeshows. You and I have time and talk about stuff, how the engagement is going, what is happening next, what we are trying to get into, what can we give to something new prospects, can I help you with this account, just have meeting your managers and what you guys headed for next year. All that
makes them dear to our hearts that jump up together or we kind of grow apart. [ ] It is not just going out, becoming friends. *Beta, II*

But I meet with them frequently in person to analyze the current state of the relationship, to analyze the projects that we are working on together, to talk about new opportunities how can we go after new projects, how can we go after new business. [ ] It is both in the project and outside the project. So, a lot of time I just meet with them to strategize how we can collectively go after new business which is not related to a project. It is more how do we target new customers for new services or for existing services but in a new way. *Psi, II*

On another note, the extent of the bonding depended on the nature of the relationship between partners, which was indirectly related to the services provided by the partner. For example, for the hosting services, the partners did not foster any bond nor they socialized or strategized with the partner.

**6.5. Differences Between Local and Non-Local Partnership Formation**

The analysis of the partnership formation process indicated differences between local, domestic and international non-local partnerships not in terms of the steps but the way the firms developed the routines, i.e. capabilities. In non-local partnerships, the firms concentrated their efforts on challenges associated with the geographical, temporal and cultural distances, and tried to narrow these distances. I highlight these differences for each formation step.

**6.5.1 Partner Search and Selection**

In both domestic and international non-local partnerships, the search and selection criteria were the same, except for partner’s business referral potential. The participants stated that they could obtain more reference on the local candidates from customers or other known parties; hence, the search was easier for them to handle. On the other hand, in non-local partnerships, especially in international partnerships, search and selection became complicated for the firms.
Findings suggested that the complexity of these efforts depended on the level of information required to evaluate the candidates, which was driven by the IT service type.

For procedural, routine IT services such as hosting, some firms have worked with domestic service providers; the information on these partners was either publicly available on Internet or easily obtainable. Selection was based on industry standards and technical performance measures; there was less room for subjectivity in evaluation. Therefore, the organizational proximity achieved by standards and norms compensated the lack of geographical proximity. On the contrary, for creative services such as software development, there was less information available on a potential partner, or acquisition and validation of this information required more effort and subjective judgment. Partner selection became more ambiguous and tedious for the firms, as the geographical distance between partners increased. In this case, the firms relied more on the referrals from known parties and partner’s affiliation became crucial. Similarly, in international partnerships, the candidates were identified via referrals by customers, network members (e.g. senior managers’ networks or Microsoft ecosystem) or other known parties (e.g. sister firms). In some cases, the firms took over the customer’s offshore service provider as partner as well.

In both domestic and international partner selection, the firms underlined the role of shared values and culture, such as *like-mindedness* and *talking the same language* with the partner. These similarities, i.e. organizational proximities, narrowed the geographical gap between the partners and increase the efficiency in communication and coordination. Consequently, assessment of non-local candidate’s values and culture became a pivotal step in partnership formation.
We share some values and perspectives. [ ] There we have a like-mindedness from them end that makes it easy to work together and it is part of that success. [ ] So the fact that we both think that way allows us to trust each other more, cause when they tell me something is on track I believe them. *Gamma, I3*

The selection process for an international partner was more detailed and exhaustive compared to the domestic ones. Participants reported that even though the candidates were referred by known parties, they needed a more thorough, stage-based due diligence. At the first stage, the firms reviewed second-hand knowledge about the candidate including case studies, webpage information and feedbacks. Next, through a series of FTF meetings or phone interviews with the partner’s management team and the technical staff, they assessed the candidate’s positioning, delivery model, value systems and match between the firms. At this stage, the aim was to evaluate candidate’s credibility or “*whether they walk the walk*”\(^\text{21}\). If the firm had previously worked with the candidate at a customer project, this secondary experience was helpful for the evaluation and the firms performed a less intensive background check. Some firms visited offshore firm’s premises and/or tested the candidate with a pilot project. Senior managers’ background and their previous experiences in similar processes were instrumental in partner search and selection.

### 6.5.2 Coordination and Knowledge Transfer

Coordination, project management and knowledge transfer in non-local partnerships diverged substantially from local practices. Since geographical distance, asynchronous availability, and cultural differences impeded coordination, the firms developed different routines and procedures, especially for international partnerships.

\(^{21}\) Gamma, I2
Similar to search and selection, this observation was valid for creative, complex and unstructured services where coordination and knowledge transfer need was broader compared to routine and procedural services. The firms engaged in non-local partnerships have designed and implemented coordination processes and routines for the project work. Being closer to the customer, they performed customer-facing and on-site activities such as gathering business requirements, business and system analysis. Usually, all leadership roles (project management, lead architect and lead analyst) were kept by the focal firm. Since partner’s developers had limited access to the customer, it was essential to build strong business analysis capacity at the focal firm. Local teams acted as a bridge between customers and distant partners. Project managers ensured that the geographically-dispersed teams worked as a single team.

Time planning was pivotal in for the partnerships where there were time zone differences between partners. Project managers accounted for communication and clarification delays, unanticipated interruptions, technical problems, and national holidays in case of international partnerships. Hence, they planned for longer development and testing cycles, and allocated buffers in the schedule. In case of downtime, they assigned non-critical tasks to the partner, such as bug fixing, tests, unit testing, research and preparation for future iterations. By doing so, they could utilize partner’s resources more efficiently.

I guess to overcome that, part of it just to plan on longer development and testing cycles in the plan. So if we know that here is going to be a significant amount of offshore development, frankly I am going to make sure in our project plan that we start off very early in the project that we build in the amount of time sufficient to account for that. [ ] It doesn’t mean that there is actually more work in terms of billable work that is occurring, it is just that non-work time that is going to spend that out. Lambda, 14

Another key activity in non-local partnerships was knowledge and task transfer between partners, especially for creative, complex and unstructured type of services. The development
task assigned to the distant partner had to be broken down into specific tasks and defined in
details to avoid misunderstanding.

In US when you are dealing with partners, you explain that I want you to go from point A to point B. And
you describe what point A is, you describe what point B is. Most people will figure out the way to get there
because they know this. I will be more specific: if you say I want you to create this screen. On this screen
there will be 20 fields. The users will come in and enter the information on this form, the name, the
address, city and state. And then you lean on that. Most people know that you put the name first, the
address next, city, state. If you don’t clearly state that offshore will put that in any order they want. Because
they don’t know how people in the US enter city, state, zip. You have to exactly state, otherwise they make
city, state, zip just one field. You have to very specific with them on anything you want, a UI or a database.
Because otherwise they will assume something from their side and they think it is fine. Psi, I1

For these services, task definition was materialized in functional and technical
 specifications; technical specifications included test scenarios as well. A participant reported that
supporting the specifications with visuals and preparing bulleted-point instructions decreased the
failure rate. Depending on the project staffing and the complexity of the deliverables, the firms
either dictated the technical design or had the partner prepare the draft according to their
directions. Moreover, firm’s architects provided support to the non-local partner in terms of
coaching, code reviews and prototypes.

Actually we have a test case built into the functional specification. At one time we have those broken out
separately. We found to put all of that in one document is just easier to manage and all, it gave the
developers a better understanding basically the test cases embedded right in the functional spec what they
are supporting. Yes, that will be very specific cases in there and scenarios what have been accomplished.
Lambda, I4

The task was handed over to the distant partner either via e-mail or a common
collaboration platform. Afterwards, firms performed a walk-through with the partner to confirm
that the requirements were fully understood. Some firms integrated additional quality assurance
steps in their processes. Even though the partner was responsible to run the tests and to verify the code, the firms randomly tested the deliverables.

We have an additional QA step that we typically don’t have onshore projects that we do here. So we have second level of QA that we do here on all offshore projects. Not in its entirety. All we do is tick things, just to get a random sampling to see things are doing fine. *Psi, I1*

One of the participants underlined the need for internal coordination within the firm. For example, to support the non-local teams, firms scheduled the local activities accordingly and arranged after-hour maintenance so that the distant partner could access the platforms uninterrupted. Finally, the firms structured their internal teams, roles and responsibilities in a manner to increase the coordination efficiency with the non-local partner.

### 6.5.3 Communication

Distance impeded communication; problems in communication affected knowledge transfer, coordination and project management negatively. The firms could not communicate with their non-local partners fast and spontaneously as they used to do with local partners. Due to time zone differences, the partners were asynchronously available to each other. Lack of FTF interactions enforced them to accommodate their communication needs via ICTs, with a narrower bandwidth. For international partnerships, some participants reported cultural differences in terms of terminology, behavior, values and expectations. This factor could be an obstacle to efficient communication and knowledge transfer. As marked by one of the participants-

> And the whole root of the problem is communication. Communication is that, there is no number two. Language is a problem because it affects communication. Culture is a problem because it affects the communication. It is not the language per se, it is not the culture per se, it is how it affects communication. *Lambda, I1*
All participants underlined the need for consistent, frequent and structured communication especially for creative services. The data pointed out that the firms engaged in non-local partnerships developed unique communication strategies to compensate the lack of FTF interactions and the geographical proximity; eventually they learned to communicate over distance, time zones and via ICTs.

The key components of a communication strategy were identified as mechanisms, communication layers across teams, usage of ICTs, and tone or style of the communication. As communication mechanisms, the firms organized frequent, structured and agenda-based meetings; in the absence of FTF, meetings were held via conference or video calls. Two case firms, Gamma and Psi, had established communication procedures. For example, Gamma held daily early morning conference calls called standup meetings with the non-local partner. These meetings did not serve to receive status feedback only; the objective was to bring the teams together, have discussions about open issues, roadblocks and obstacles, review documentation and provide help to each other. Hence, the meetings presented a proxy for synchronous availability of distant teams, like a working session. Gamma required the partner to prepare and share a meeting agenda in advance, and document the meeting minutes afterwards. The managers reported that this strategy increased the efficiency of the meetings and involved the partner actively in the communication. Psi had a similar procedure; the firm set daily morning calls with the partner’s project manager and every other night calls with the partner team. In these meetings, the partner should explain the status or the methodology so that Psi team could be alerted about the problems earlier in the process.

We have the standup meeting. And the format of the standup meeting is that people bring up what they did before, if they had any obstacles and what they plan to work on today. [ ] When we work with the offshore team, the only people that give status typically were the leads. So the pm and technical lead provided status and if there was a developer that had a road block, so if he doesn’t finish something or did not understand
something, that developer was welcome to bring it up in the standup meeting. Or we give the information to tech lead and the tech lead would ask the questions on his behalf. [ ] We had those every morning either 6.30 or 7 in the morning. [ ] It was more to help them if they were stuck in something or if they need clarification than to manage them. *Gamma, I4*

So we make it as we do every other night calls with our offshore team and then we do the project manager every morning calls with offshore. Those are mandated. So even if the call takes 5 minutes, I don’t really care. They get on the phone and they talk. So, they don’t use emails as a sort of crunch. *Psi, I1*

To the extent possible, these meetings were combined with occasional FTF interactions between the team leaders especially at the kickoff of the projects. These visits served for calibration and bonding between the teams; the offshore leaders were responsible for transfer this knowledge back to their team.

When we start a project, we will have couple of people coming here for couple of weeks. So they can actually be seated in the same room with our team. They get to know each other. So when they go back they already know who they are. They know the faces, they sat in the same room, they have lunch together, they even have some dinners, they build that bonding together. *Psi, I1*

For an effective communication, the firms set communication layers at the both ends, the focal firm and the partner, the teams should communicate with their counterparts only. For example, the focal firm’s project manager communicated with the partner’s project manager and tech leader; however, this setup did not discourage the developers attending the meetings. By doing so, the firms could eliminate unnecessary and redundant communication.

The firms utilized a wider variety of ICTs (such as e-mail, phone, chat, web tools) in non-local partnerships compared to the local ones. Apparently, the largest part of the communication with the distant partner occurred via phone and e-mail. The details of ICT usage is described in the next section.

The findings unfolded the fact that in distant relationships communication did serve not only to convey technical messages, knowledge and information; but also to set, calibrate and
manage expectations from the partner in terms of timing, quality, content or deliverable. The firms reported that in case of offshoring, the partners might develop different expectations due to the cultural differences (such as such as avoiding conflicts and disagreements, lack of transparency and terminology differences). In turn, these differences might lead to substantial reworks and even customer dissatisfaction. Hence, the firms experienced in non-local partnerships adapted not only the mechanisms and the media but also the language and the style of the communication to address and avoid misunderstandings. Experienced project managers were effective to catch these differences and set the tone of the communication accordingly.

As a team, they will complete an assignment by Friday for example, and you were asking if they had understood. They would say “Yes”. But that "Yes" was meant to understand what you said, not necessarily “Yes” to understand that that they were supposed to complete all this work or they were able to complete all that work by Friday. So it is just something that you have to adjust the way you speak and the things that you are saying to overcome some of the cultural communication gaps. [ ] But again something we realized and I had worked with offshore teams before so I was able to catch onto it very quickly and reset expectations. I was able to tell them “Hey, we are looking for transparency and for the truth. If you are not able to do something it is ok if you let me know that you can’t do it. Gamma, I4

When you talk you force them [offshore team] to talk verbally, and if they can’t explain it you know that there is a problem. So we get on the phone and tell them “We asked you to do this, and you understand this. And you have to explain us that how you are going to do it.” And if they can explain to us, then we know that they got it. And when hard time struggling, they didn’t get it. So then we repeat ourselves, how do you get. So we catch. Psi, I1

Gamma’s project manager created an offshore manual and shared it with his teams. Below is an excerpt that describes how to communicate with offshore partners:

1. State the obvious.
2. Probe the team, ask questions: What does ‘DONE’ mean? Coded + Unit Tested + QA’d?
3. Do not assume anything.
4. Repeat yourself. Say the same thing several times in different ways. Ask team to state what you are asking of them on their own words.
5. For example: You explain to the offshore team that they need to complete ‘X’ by Friday. Ask them if they understand, and they say ‘Yes’. ‘Yes’ could mean they understand that you want them to complete the work by Friday, and not that they are accepting/owning the responsibility of completing the task by Friday.

6. Restate the obvious.

**6.5.4 Governance**

Participants reported that contrary to the local partnerships managed via “hand-shaking” and trust, the non-local partnerships, especially international ones, were strictly governed by agreements, such as NDA, master agreement, statement of work and security policies. However, the agreement content depended on the partnership type and the service involved, regardless of the distance between partners. For example, the ISVs and the hosting firms had their standard templates to sign. For other services, focal firms tailored their templates according to the partner and the service; the goal was to protect the customer and project ownership. Participants stated that, although the probability of direct competition with an international partner is low, non-compete clauses were added to the agreements.

Analysis of the blank agreement templates suggested that the structure and the language of the agreement was an indicator of a firm’s approach to partnerships as well. Due to confidentially, firms have not exposed the actual agreements; hence findings were based on the participant reports. As an observation, the firms with strongly-worded and detailed agreements were the ones who engaged in international non-local partnerships.

**6.5.5 Relationship Management and Bonding**

In non-local partnerships, the social aspect of bonding was limited compared to local partnerships, due to lack of FTF contact. With the technology, ERP or EHR partners, there were
relatively more opportunities to interact at conferences, user group meetings, and tradeshows; the firms actively used these platforms for bonding and relationship building.

Findings indicated that bonding in non-local partnerships happened mostly at the senior manager level to strategize with the partner. Due to the distance, the partners mainly exchange phone calls; for the same reason, the partners show more interest to stay engaged, share project prospects and keep communication channels open.

So it is probably not different than I would keep relationships up with other folks that I might want to choose to work at any time in the future. [ ] I might want to reach out them more frequently to tell the opportunities in the pipeline so that they stay engaged and I remember them “hey I am on their radar. This is something we can work out soon.” I want to keep it what their capabilities are, do they have bandwidth, if they are still doing the type of work that we had a lot benefited, that we might to tend. *Gamma, 13*

One of the owners of that offshore firm, I talk with them every 2-3 weeks. And it is not really the projects. We talk about the projects, as well as we talk about business and opportunities, challenges just to make sure we communicate the channels are open. *Psi, 1*

Table XXI summarizes the differences between local and non-local partnerships formed for software development services.
TABLE XXI. Partnership Formation Differences between Local and Non-local Partnerships (Example: Software Development Service)

<table>
<thead>
<tr>
<th></th>
<th>Local Partnership</th>
<th>Non-local Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Same search activities, not a planned search (opportunity-driven)</td>
<td></td>
</tr>
<tr>
<td>Selection</td>
<td>Not a formal selection process, potential partners identified by referrals and networks</td>
<td>Same selection criteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More detailed and exhaustive selection process</td>
</tr>
<tr>
<td>Coordination and Knowledge Transfer</td>
<td>Onsite teamwork with partner Partners FTF interactions with the customer and partners</td>
<td>Project management with special emphasis on time and expectation management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Well-defined, detailed spec preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality assurance routines</td>
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<tr>
<td></td>
<td></td>
<td>Internal coordination</td>
</tr>
<tr>
<td>Communication</td>
<td>FTF communication</td>
<td>Frequent, structured communication with partner</td>
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<tr>
<td></td>
<td></td>
<td>Communication over ICTs</td>
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<tr>
<td></td>
<td></td>
<td>Occasional FTF</td>
</tr>
<tr>
<td>Governance</td>
<td>NDA, hand-shake</td>
<td>Stronger agreements</td>
</tr>
<tr>
<td>Relationship Management and Bonding</td>
<td>To socialize and strategize More opportunities in local area</td>
<td>To strategize</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less opportunities for socializing</td>
</tr>
</tbody>
</table>

6.6 Learning in Partnerships

From the narratives it was apparent that there was a learning curve for IT SMEs in non-local partnership formation. The participants indicated that their firms learned to manage distant relationships and cultural differences through pilot projects and repetitive interactions with the same or different partners. Via positive and negative experiences, they could accumulate partnership know-how, which helped them to develop, refine and modify best practices and
routines. Since the instances were not frequent, learning was spread over longer periods. In fact, substantial part of learning occurred via senior managers’ and founders’ previous experiences.

Psi remarked that the firm learned how to mitigate risks within their networks via experience sharing. Through repetitive interactions and thanks to prior experience of the senior managers, Gamma became aware of the cultural nuances and integrated that approach into its best practices. Other firms, Sigma and Lambda, gained experience in the projects where they cooperated with the customer’s offshore service providers. Through these mandated interfirm relationships, they gained second-hand experience at customer’s risk and learned how to coordinate and communicate with non-local partners. Other firms tested the partners in small and short projects.

It is [kind of a learning experience]. And it is a management. You have to learn to understand your team and to make sure that you manage them. And sometimes it is harder, because they are remote and basically all you have to go by based on their word, this is something you have to understand and try to guess what is going on. Gamma, Ι4

These findings were in line with the exploratory interviews and the literature on organizational learning.

**6.7 The Role of Information and Communication Technologies in Partnerships**

To explore alternative explanations for IT SMEs’ non-local partner choice, I inquired about ICT utilization in partnerships. Differentiating by process steps, I analyzed ICTs separately for coordination, communication and service provision. Findings indicated that the ICTs per se were not influential on non-local partnership formation. Regardless of the partnership type, all case firms had access and utilized a variety of ICTs for project communication and coordination. However, what distinguished firms engaged in non-local partnerships was the way they utilized
ICTs. This approach represented the communication capability discussed previously. Therefore, ICTs per se were not recognized as a separate facilitator. Findings about ICT usage are presented below.

6.7.1 Information and Communication Technologies in Coordination

All case firms utilized some kind of project management tools (such as Microsoft Project) or collaboration platforms (such as own tools, SharePoint Portal, Base Camp, wikis, issue trackers or other web-based third party products) internally or shared these platforms with the partners. The built-in functionalities of these platforms were more or less similar: multiple project management, tasks, internal and external resource allocation, project planning (timelines and milestone management), collaborative document and file sharing, calendar and meeting management, and messaging. For instance, Sigma, Lambda, Beta and Omega preferred Microsoft Project for internal project management. Psi used SharePoint Portal for the local and BaseCamp for the offshore cooperation. Gamma had few different tools for cooperation, such as wikis or Microsoft SharePoint Portal. Lambda utilized its own proprietary collaboration platform, which was integrated web-based tool similar to Lotus Notes platform. Omega and Beta deployed online project management tools which could be shared with the partners if needed. Although Gamma, Lambda, and Psi offered full access to these coordination platforms, the functionalities were not extensively utilized by the partners.

Another observation was that the extent of ICT usage depended on the underlying IT service and the focal firm’s role in the partnership. If the focal firm was responsible for resource allocation and management, and there was a development service involved, the abovementioned platforms and tracking tools were in place. The firms installed specific applications for code/source management and bug tracking purposes; these tools were shared with the
development partners as well. Shared server or cloud infrastructure enabled the partners to troubleshoot issues effectively. On the other hand, in partnerships established for procedural and system-intensive services (such as hosting), there was no project management component. The firms utilized hosting firms’ ticketing and issue reporting systems for performance monitoring and issues. Similarly, for remote intervention on databases and webpages, they used hosting firms’ protocols and access tools.

6.7.2 Information and Communication Technologies in Communication

The firms reported that they utilized all kind of communication media such as FTF, phone, video conferencing, email, Skype, and chat. They chose the ICTs according to the context, the content and the formality of the communication. For instance, for quick, ad-hoc and informal communication, they used chat or phone. The meetings were held via conference calls or video conferences. Formal communication was performed via the collaboration platform; emails were preferred for specification handover in the absence of a common platform. Depending on the criticality and the formality of the message, sometimes the firms used multiple media to convey the same message in different contexts, such as using the collaboration platform and e-mails as reminders. As one participant exemplified-

We consider email more of an informal communication. So I mean, we used emails heavily, but the official ways to document work where the requirement documents in SP or TFS. And we would send emails to confirm that saying “hey, please know that we have assigned some issues to you. Please know that we are waiting this development, you need tom develop this feature and this is the requirement document.” But it was more as a reminder, and maybe just tracking a little bit than to actually officially communicating information. Gamma, 14

Table XXII summarizes the firms’ ICTs utilization preferences for project coordination and communication.
### TABLE XXII. ICTs for Project Coordination and Communication

<table>
<thead>
<tr>
<th>ICT</th>
<th>Rho</th>
<th>Psi</th>
<th>Sigma</th>
<th>Gamma</th>
<th>Lambda</th>
<th>Beta</th>
<th>Omega</th>
<th>Io</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management/</td>
<td>MS SharePoint (local)</td>
<td>MS Project (internal)</td>
<td>MS SharePoint Wiki Source Man.</td>
<td>Prop. Web-based tool MS Project</td>
<td>Open source collaboration portal MS Project (internal)</td>
<td>Online project management tools</td>
<td>MS SharePoint (to be implemented)</td>
<td></td>
</tr>
<tr>
<td>Collaboration (development)</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Tracking (hosting)</td>
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<td></td>
</tr>
<tr>
<td>Skype Video Conferences</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>E-mail</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Phone Conference Calls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chat / IM</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Webinars Webtools</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Wiki</td>
<td></td>
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<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
6.7.3 Information and Communication Technologies in Service Provision

Findings distinguished service provision technologies from other types of ICTs; these technologies might facilitate or hinder non-local partnerships. Some technologies and methodologies, such as Agile development, require closer collaboration between service providers and the customer; collocation of the teams contributes substantially to success. Thus, the firms following Agile methodology preferred local partners or no partners at all.

“So part of that [Agile] is this collaborative, iterative, kind of communicative environment. So you can’t do that with an offshore company, period. [ ] I mean you can put tools in place like developer tools like Pivotal Tracker that lets you sit here as a business owner and a technology delivery person sitting here so you can communicate, but you still, unless you talk face-to-face and understand what is expected, you are going to have a disconnect. Omega, I2

On the contrary, some emerging technologies, such as Cloud Technologies, enabled remote work. For example, with Ruby on Rail development, interactions between partners happened in the cloud: development, demos, and testing. As reported by Rho, this nature facilitated distant cooperation. However, not all firms offering Ruby on Rails development considered non-local partnerships.

Ruby on Rails is a little bit unique comparison to the other things we do and there is some easy to do development in the cloud. [ ] It has also become very easy to have disparately located teams. Rho, I3

Some of them are more moderate things what we have done, we are deploying the software out to the Internet, the cloud if you will. And we can do demos on the cloud, either they allow us to do or us doing the demo, we can even have them clicking on, actually using application live because it is in the cloud. So, even though we are doing the development work here, we push it to the cloud, it is immediately visible to the client. So that actually has easier to do remote work. Sigma, I1

6.8 Negative Cases

Finally, to make further comparisons and explore alternative explanations, I analyzed two negative cases. These firms did not show any interest to cooperate with other IT firms in their
service provision models. Following the Agile methodology, Pi, a small software development studio, has integrated design and development services in its service model. Hence, the firm rarely needed an external resource except some domain expertise. The senior managers stated that before launching design services, they used to partner with local design firms. For development services, they engaged in non-local partnerships with IT firms in India, Philippines, Costa Rica as well. During this cooperation, Pi faced quality, communication and coordination problems, and the non-local team decreased the efficiency substantially. Although the senior managers were experienced in international relationships, the firm decided to stop these endeavors. The management attributed that failure to partners’ incapability to keep with the pace of the Agile collaboration.

We have daily scrums. The clients are in these scrums. We are demoing every week or two. While we are developing they are working closely with our designers to develop requirements and they are working and user acceptance testing and giving feedback on the code. So, there is just so much client communication involved in the nature of the projects we do, and the offshore has tended to slow us down. We actually had a project where we tried four of our developers and two offshore people, and we found that when we dropped the two offshore people we actually get more done in two week iteration than we have a six man team. So they were actually slowing our people down with questions as opposed to speaking themselves.” Pi, II

Contrarily, another case firm employing the Agile methodology, Rho, stated that it would be possible to carve out a certain part of the development and hand it over to a partner, even to a non-local one.

The other negative case, Eta, a medium-sized IT consulting firm, had different characteristics than Pi. The firm was three times larger than Pi in terms of the employee size (35 vs. 100). Its customer base was broader in terms of industry and comprised of large companies and governments located in Chicago whereas Pi served to startup companies in East Coast and Chicago. Eta rendered its services via traditional technologies (such as Java, .NET, Microsoft); on the contrary, Pi applied emerging mobile technologies for Web 2.0, Rich Internet, iPad and iPhone
applications. Both firms were established in 1998. Eta preferred insourcing mainly; it occasionally subcontracted individuals for niche skills. Only if the partnership was required as part of RFP, Eta sought for partners; the aim was not to cooperate but to avoid competition in the deal. The founder stated that they perceived partnerships as staffing vehicles rather than strategic tools or investments.

In addition to these negative cases, other firms narrated their negative partnership experiences. For example, Rho was forced by the customer to partner with a local IT firm. On a technical level, the project was delivered successfully; however, the philosophical differences between partners in collaboration and service provision were the deal killers. In another instance, Psi attempted to cooperate with Mexican software development firms, motivated by fewer time zone differences; but partners’ skill sets were not satisfactory. Lambda had negative experiences with two other Indian software development firms. One of the partners, mandated by the customer, was too big in size and the resources were weaker than expected. Lambda could not control the relationship due to its smaller size. Similarly, there were quality problems with the second partner, which Lambda management identified as a “commodity body shop”, i.e., a firm “throwing resources into the projects”.

To summarize, data suggested that for some cases the focal firm’s business model or the methodology was not appropriate to engage in partnerships, regardless of the type. The majority of the negative experiences illustrated that either the focal firm made unsuccessful partner selection or was not capable to form and manage a relationship with a distant partner. These instances indicated lack of partnership capabilities and organizational proximities.
7 DISCUSSION

Drawing on alliance, SME, and IS literature and analyzing through trust, proximity, and capability lenses, this research study explores an emerging phenomenon in IT SME practice: non-local service partnership formation. Data analysis reveals several interesting findings on the phenomenon, particularly shedding light on SMEs’ partnership formation process and the facilitators of cooperation with distant IT firms.

Previous research underlines the importance of trust in SME interfirm relationships and posits that, due to their characteristics, SMEs rely on trust as a risk mitigation (Hoffmann and Schlosser, 2001; BarNir and Smith, 2002; Morrisey and Pittaway, 2006; Bierly III and Gallagher, 2007), and a governance mechanism (Larson, 1991; Hoffmann and Schlosser, 2001; Morrisey and Pittaway, 2006; Colombo et al., 2006; Bierly III and Gallagher, 2007; van Gils and Zwart, 2009). Geographically proximate firms have more opportunities for FTF contact, which, in turn, facilitates trust building (Petruzzelli et al., 2007; Belso-Martinez, 2010). Hence, due to the ease of trust building and convenience, SMEs tend to form partnerships with geographically proximate, local firms (Baird et al., 1994; Torre and Rallet, 2005). Though acknowledging this tendency in data analysis, the findings contradict it and provide empirical evidence that, indeed, some SMEs can build trust and convenience with distant partners while some others still prefer local partners.

Existing theory bases cannot sufficiently explain this divergent SME behavior. For example, TCE focuses on interactions between the markets and the actors (Kern and Willcocks, 2000), and ignores the relational aspects of interfirm cooperation (Eisenhardt and Schoonhoven, 1996; Barringer and Harrison, 2000; Todeva and Knoke, 2005; Lavie, 2006; Colombo, 2003). Focusing on cost minimization, the theory disregards value maximization in alliances (Gulati, 1998). On the other hand, though emphasizing the importance of access to resources, RBV reflects
a rather static perspective of the firm (Teece et al., 1997; Eisenhardt and Martin, 2000). This perspective neither offers any remedy to resource-constrained SMEs nor captures the dynamic response these firms ought to give in fast changing markets, such as the IT industry. Thus, as discussed previously in section 2.8, dynamic capability perspective is a more salient theoretical base to reflect the dynamism in IT SMEs’ partnerships.

Regarding the determinants of partnership formation, the literature lists organizational factors like age, size, assets, management practices, culture, and position in the industry (Baird et al., 1994; Hannah and Walsh, 2008; Hoffmann and Schlosser, 2001; Colombo et al., 2006; Ulubasoglu et al., 2009; van Gils and Zwart, 2009; Belso-Martinez, 2010). Although these factors influence firm behavior in general, this study presents evidence that the firm characteristics like age, size, and assets do not facilitate SME non-local partnership formation. For example, exploratory interviews revealed that some medium-sized IT firms preferred local partnerships whereas some smaller firms were actively engaged in non-local partnerships. In terms of age, some mature SMEs tended to form local partnerships only whereas some younger firms had or considered forming non-local partnerships. Likewise, a good example for a firm’s assets was the ICTs deployed for distant communication, coordination, and service provision. The case studies pointed out that there were multiple ICTs at the disposal of the technology firms, as resources, and the firms used them extensively in their work practices. However, only those firms, such as Gamma and Psi, which have implemented a proper communication strategy and effectively deployed ICTs as part of it, have engaged in non-local partnerships.

On another note, previous research studies argue that partnerships within the same industry are motivated by resource complementarities and economies of scale (Arora and Gambardella, 1990; Rothenernal and Deeds, 2006). Similarly, technological complementarity between partners
encourages formation of innovative technology alliances (Mowery et al., 1998; Fisher and Varga, 2002). These arguments are well-taken and valid for IT SMEs’ partnership formation in general; however, as the findings suggest, complementarities, on their own, are necessary but not sufficient for SMEs to form non-local partnerships.

This exploratory study confirms that some of the existing theoretical premises on alliances apply for IT SMEs’ non-local service partnerships as well. But more importantly, it presents several new findings on the phenomenon. First, a firm’s partnership capabilities, in the form of methodologies and procedures, have more influence on the non-local partner choice than size and level of resources. As discussed previously in section 2.9.1, the literature conceptualizes these capabilities in a large-firm context (Eisenhardt and Martin, 2000; Kale et al., 2002; Heimeriks and Duysters, 2007; Schreiner et al., 2009). SME internationalization (Baird et al., 1994; Weerawardena et al., 2007) and global sourcing/offshoring literature (Ranganathan and Balaji, 2007; Pagano, 2009) briefly note the importance of developing organizational capabilities, such as learning, marketing, networking and relational capabilities. This study provides empirical evidence and in depth conceptualization of the partnership capabilities in IT SME non-local service partnership context.

Data show that the SMEs that have adopted best practices or methodologies for software development and project management can manage the distance-related challenges easily. Similarly, the firms that have developed partnership-related routines and procedures show higher interest in non-local partnerships. These routines embrace a gamut of partnership activities across the formation process, such as task assessment, partner selection, contract preparation, analysis and specification preparation, internal coordination, and communication. Focal firm’s internal roles for project management, quality and assurance, and business analysis functions are found to be pivotal
for non-local partnerships, especially for software development services. If the SMEs could design and implement internal roles accordingly, even without dedicating extra resources, this structure would support solving distance-related problems, hence, facilitate non-local partnership formation.

Second, the analysis highlights senior managers' characteristics as another firm-specific enabler. SMEs with senior managers who have previous experience in distant cooperation and are open to managing cultural, geographical, and temporal differences tend to form non-local partnerships. Firms may utilize their networks, especially nation-wide or international ones, as reliable sources for contacting and screening potential non-local partners. These findings confirm both the SME and internationalization literature that identifies founder/manager factors as influential on firm's partnership practices (Weaver et al., 1997; BarNir and Smith, 2002; Ruzzier et al., 2006; Ulubasoglu et al., 2009; van Gils and Zwart, 2009). What is new about the findings here is not the direct, but rather the indirect effect of senior managers on partnership formation via capability building. I will discuss this topic at greater length in the next sections.

Third, my findings highlight the importance of organizational proximities in the absence of geographical proximity. The literature posits that organizational proximities facilitate knowledge transfer, innovation, joint value creation, and trust development between parties (Torre and Gilly, 2000; Torre and Rallet, 2005; Oerlemans and Meeus, 2005; Knoben and Oerlemans, 2006). The study proves that, in fact, this type of proximity can substitute for the lack of geographical proximity between partners, and facilitate non-local partnerships. Examples of organizational proximities are shared networks and ecosystems (e.g. Microsoft Partnership Program), shared values and norms, and a partner’s representation in focal firm’s area.

Finally, I posit that the type of the IT service provided via the partnership drives IT SMEs' partnership choices, an aspect overlooked so far in the literature. The IT service type determines
the extent of the efforts SMEs need to invest into the non-local partnerships. For example, for commoditized services (such as hosting), clearly defined tasks (such as testing) and support activities (such as first-level of support), geographical proximity between partners is not essential and SMEs do not hesitate to partner with non-local firms. On the contrary, for creative services, such as software development, user experience design and IT consulting, firms need to possess partnership capabilities and/or create organizational proximities to form non-local partnerships. Moreover, the findings suggest that some emerging technologies, such as virtualization and cloud technologies, enable virtual cooperation. Hence, the development paradigms using these technologies (e.g. Ruby of Rails development) or remote deployment (e.g. EDI implementation) facilitate distant cooperation. Table XXIII summarizes these novel findings. In the following sections, I analyze abovementioned factors and elicit how they individually and jointly influence non-local partnership formation.
### TABLE XXIII. Facilitators of Non-local Partnerships

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Enablers of Non-local Partnership Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Capabilities</td>
<td>Methodologies</td>
<td>Best practices in software development and project management</td>
</tr>
<tr>
<td></td>
<td>Routines</td>
<td>Thorough partner search and selection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contract preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Detailed spec preparation, clear definition of task and work</td>
</tr>
<tr>
<td></td>
<td>Internal Roles</td>
<td>Internal coordination</td>
</tr>
<tr>
<td>Senior Management Characteristics</td>
<td></td>
<td>Project management</td>
</tr>
<tr>
<td>Organizational Proximity between Partners</td>
<td></td>
<td>Quality assurance</td>
</tr>
<tr>
<td>IT Service</td>
<td>Service Type</td>
<td>Non-local networks</td>
</tr>
<tr>
<td></td>
<td>Development Technologies</td>
<td>Background and experience in distant cooperation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Affiliation through networks and ecosystems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shared values and norms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner's local representation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commoditized products/services, clearly-defined tasks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remote deployment and intervention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cloud technologies/Ruby on Rails development paradigm</td>
</tr>
</tbody>
</table>

#### 7.1 Firm’s Partnership Capabilities

The empirical findings show that capabilities matter more than any other firm properties (such as size and age) for highly competitive, risk averse, less formal, and less structured SMEs that are dependent on external resources and lack extra resources to allocate for partnerships. Therefore, building and continuously adapting relevant capabilities is, indeed, more crucial for the SMEs than it is for their larger peers. These capabilities are manifested as organizational routines and processes related to partnership formation, and they conform to the dynamic capability conceptualization (Eisenhardt and Martin, 2000). Both exploratory and case study findings support this argument and reveal that the IT SMEs equipped with partnership capabilities may extend their comfort zone beyond their local boundaries and partner with non-local IT firms.
The literature conceptualizes alliance management capability with three dimensions: *coordination, communication,* and *bonding* (Schreiner et al., 2009). While that conceptualization focuses on the management of alliances, this study’s scope is alliance formation, which necessarily includes management. To analyze the impact of capabilities on partnership formation behavior, I adopt a process perspective analogous to relationship development (Ring and van de Ven, 1994; Doz, 1996; Weerawardena et al., 2007). This process framework consists of partner search and selection, coordination and knowledge transfer, communication, governance, relationship management and bonding steps as described in the previous sections. Consequently, the partnership capabilities span across all process steps. Accordingly, taking Schreiner et al.’s (2009) three-dimensional conceptualization as basis, I add a new dimension, *partner assessment,* and expand the coordination dimension to include *knowledge transfer,* which is particular to service provision. To summarize, I conceptualize partnership capabilities with five dimensions: *partner assessment, coordination and knowledge transfer, communication, and relationship management/bonding.*

### 7.1.1 Partner Assessment Capability

The SMEs prefer to form a small number of stable exchange relationships, i.e. small and dense networks with a handful of outside firms providing critical resources (Larson, 1991). Selecting the most appropriate partner is essential for effective partnership management and success (Dacin et al., 1997; Hitt et al., 2000); this aspect is a pivotal risk mitigation technique for risk-averse SMEs.

Data suggest that instead of conducting a partner search for each project, IT SMEs tend to create a small pool of reliable IT firms with complementary skills and services. Only IT firms

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22 Section 6.4, Figure 2
referred and stamped by a known party (such as customers, employees, other partners, and contractors) are added into this pool. Interactions in social circles, networks and local communities provide convenient and less-risky opportunities to gather information on potential partners in a naturalistic manner, thus, to build trust. In parallel to trust development, some candidates are converted into friends and later into partners. This approach is efficient for resource-constrained SMEs; partnerships with these friends/acquaintances and embedded ties decreases ambiguity, enables knowledge transfer and cooperation (Li et al., 2008), and decreases governance costs (Hagedoorn et al., 2009). This behavior was observed at eight case firms having active or potential partnerships, regardless of the partner’s location. Only when a niche IT skill or service, which was not available in the pool, was sought for, the SMEs initiated a new partner search. As reported by one participant:

We have got partners that we have in our back pockets with different areas of complementary services. [ ] Typically the relationship with the firm is almost always has been created before the need arises. **Sigma, I1**

As the need arises, for the first-time or continuing partnerships, IT SMEs refer to their partner pool and select one of the IT firms based on project’s skill set requirements, partner’s resource availability, and cost.

The criteria that we are going to use probably their availability, if there are match in terms of what we need to accomplish probably the only decision criteria is what is the cost and availability if all things being equal two are available, whichever one we get a lower rate to improve our margin is probably who will go with. **Lambda, I4**

For non-local partnerships, the IT SMEs conduct a more structured search and exhaustive due diligence for partner selection; this approach reflects their risk-averse nature. The due diligence involves not only the evaluation of a partner’s technical skills but also its service delivery model and value contribution. Due to distance, the interactions with the potential partner are
infrequent and hold via ICTs; hence, the firms have limitations in gathering information about non-local candidates. Therefore, the unique skills at this process step are accumulation and verification of information on the candidates over distance in a structured way, filtering it according to the preset criteria, and assessment of the candidates’ match to the focal firm based on limited information and interaction. The capability includes the mechanisms to gather, filter, and verify information about potential partners, and the internal roles to perform the assessment.

As described by the participants:

We started with requesting referrals from our network of customers and partners on which firms they were working with. We got a list of about 14 different firms that we analyzed, and we sent out bios to them. We got responses from a large majority of them. We held conference calls with each of them and then finally we nailed the list down to four, actually 5 finalists. And then I flew to India to meet the firms and tour their facilities. [ ] I know not everyone does that, but for me, I feel like having those FTF interactions and being able to look into somebody’s eyes is important to establish trust. **Sigma, I1**

It was more background information to understand how the company positions itself, what type of brand they present to customers, are they internally focused or they externally focused, are they solution vs. skill set based, do they move in to being a trusted advisor or they really more of a vendor of services. [ ] I invited them here. I looked for whether their story was credible, for whether their story, whether they walked the walk meaning how they acted and how they engaged, was it reflective what they said they were going to do or was it non-reflective what they said they were going to do. So we call that walking the walk. If they match what they said they do. And we also looked at from the size of the company, would we be important to them versus insignificant. And we looked at their methodology to see whether it complemented how we do our work. And those were the final criteria. We actually asked a series of maybe 15 questions and company by company basis. **Gamma, I2**

In summary, the IT SMEs having strong partner assessment capabilities are able to identify a skillful and trustworthy non-local partner that can be a better fit to their service provision model. By doing so, they can match the expectations mutually and minimize the potential problems in advance.
Proposition 1a:

IT SMEs equipped with partnership assessment capabilities are likely to overcome the search and selection challenges associated with distance. Thus, these firms show a greater propensity to establish non-local service partnerships compared to the firms lacking relevant capabilities.

7.1.2 Coordination and Knowledge Transfer Capability

Coordination capability is the ability to analyze, identify, and orchestrate the task requirements, to specify each partner’s role and responsibility, and to manage the interdependencies and emergencies during task execution (Espinosa et al., 2007; Schreiner et al., 2009). Both exploratory interview and case study findings indicate that the lack of FTF contact, partners’ asynchronous availability due to time zone differences, and cultural differences might impede efficient coordination. Therefore, the firms need to develop different mechanisms and routines for the non-local, especially international, partnerships, than they do for the local ones.

In the non-local partnership context, the coordination capability presents the ability to adapt a firm’s service delivery methodologies and routines so that the temporal, cultural, and organizational gaps between partners are narrowed. The most important component is the firm’s project management ability; the prevailing aspect is management of task interdependencies and resources across time zones. Here, effective time planning requires inclusion of sufficient buffers in the project schedule to compensate for communication and clarification delays, unanticipated interruptions, technical problems, and holidays. In fact, with effective project management, time zone differences might not cause disruption in service provision. One of the participants reported as below:
I guess to overcome that, part of it just to plan on longer development and testing cycles in the plan. So if we know that here is going to be a significant amount of offshore development, frankly I am going to make sure in our project plan that we start off very early in the project that we build in the amount of time sufficient to account for that. [ ] It doesn’t mean that there is actually more work in terms of billable work that is occurring, it is just that non-work time that is going to spend that out. *Lambda, I4*

Moreover, the case firms stated that they organized their internal processes and administrative activities in order to provide utmost support to the distant partner. For example, Gamma rescheduled its local activities and arranged after-hour maintenance so that the distant partner could access the platforms uninterruptedly. To increase the coordination efficiency with the non-local partner, the firms structured their internal teams, roles and responsibilities; the crucial roles were identified as business analysis, project management, and quality assurance.

We have an additional QA step that we typically don’t have onshore projects that we do here. So we have second level of QA that we do here on all offshore projects. Not in its entirety. All we do is tick things, just to get a random sampling to see things are doing fine. *Psi, I1*

Data analysis highlights another capability dimension as part of coordination: *knowledge transfer capability*. Especially for services involving creative and development tasks, knowledge transfer is integral to coordination. This capability is the ability to transfer task-related tacit knowledge efficiently to a non-local partner, i.e. in a timely manner and sufficiently detailed to crystallize the work requirements. In other words, knowledge transfer captures both conversion of the tacit knowledge on service requirements into an explicit form, and employment of relevant mechanisms to transfer the explicit knowledge to the partner. Since distance limits FTF contact, the firms cannot benefit from this rich media. Therefore, they should create appropriate templates (such as functional and technical specifications including test scenarios) and procedures to transfer the knowledge over ICTs. As noted by participants:
Actually we have a test case built into the functional specification. At one time we have those broken out separately. We found to put all of that in one document is just easier to manage and all, it gave the developers a better understanding basically the test cases embedded right in the functional spec what they are supporting. Yes, that will be very specific cases in there and scenarios what have been accomplished. \textit{Lambda, I4}

If you say I want you to create this screen. On this screen there will be 20 fields. The users will come in and enter the information on this form, the name, the address, city and state. And then you lean on that. Most people know that you put the name first, the address next, city, state. If you don’t clearly state that offshore will put that in any order they want. Because they don’t know how people in the US enter city, state, zip. You have to exactly state, otherwise they make city, state, zip just one field. You have to very specific with them on anything you want, a UI or a database. \textit{Psi, I1}

To summarize, the IT SMEs equipped with project management, coordination, and knowledge transfer capabilities are able to overcome the challenges associated with distance, and utilize internal and non-local partners’ resources effectively.

\textit{Proposition 1b:}

\textit{IT SMEs equipped with coordination capabilities are likely to overcome the coordination challenges associated with distance. Thus, these firms show a greater propensity to establish non-local service partnerships compared to the firms lacking relevant capabilities.}

\textbf{7.1.3 Communication Capability}

Communication plays an important role in the success of interfirm relationships. Open communication reduces the uncertainty, increases the understanding of partners’ obligations and responsibilities, and provides the opportunity to recognize the changes in circumstances (Ring and van de Ven, 1994; Schreiner et al., 2009). Due to distance, abovementioned aspects are difficult to
achieve in non-local partnerships. All of the ten case firms, including the negative ones, reported communication problems as the deal-killer in partnerships.

And the whole root of the problem is communication. Communication is that, there is no number two. Language is a problem because it affects communication. Culture is a problem because it affects the communication. It is not the language per se, it is not the culture per se, it is how it affects communication.

Lambda, II

Schreiner et al. (2009) defines communication capability as the ability to convey relevant information in a timely, accurate, and complete manner by deploying various communication modes. This conceptualization is precise; however, as pointed by the three case firms involved in international partnerships, this capability represents a much broader skill set in non-local partnerships. It is not limited to communication modes. On the contrary, it comprises several components that serve to learn and conduct communication over distance, time zones, and via ICTs. In other words, communication capability corresponds to development and implementation of communication strategies that entail mechanisms, layers, media (ICTs), and a communication style.

More specifically, the communication mechanisms are procedures such as frequent, structured, and agenda-based meetings, combined with occasional FTF interactions. The communication layers correspond to channels at both partners; the goal is to eliminate unnecessary and redundant communication.

So we make it as we do every other night calls with our offshore team and then we do the project manager every morning calls with offshore. Those are mandated. So even if the call takes 5 minutes, I don’t really care. They get on the phone and they talk. So, they don’t use emails as a sort of crunch. Psi, II
In terms of media, the firms need to employ a portfolio of ICTs (such as phone, e-mail, chat, virtual meetings), choose the appropriate medium based on formality and complexity of the message, and complement it with other media to strengthen the impact of the message.

We consider email more of an informal communication. So I mean, we used emails heavily, but the official ways to document work where the requirement documents in SP or TFS. And we would send emails to confirm that saying “hey, please know that we have assigned some issues to you. Please know that we are waiting this development, you need tom develop this feature and this is the requirement document.” But it was more as a reminder, and maybe just tracking a little bit than to actually officially communicating information. Gamma, 14

Last but not least, the communication capability is not only the mechanism and the tools; it is more about how to phrase the message, i.e. the tone and the style of communication. This component of the communication capability is especially fundamental for culturally-distanced partnerships to set, calibrate, and adapt the expectations. As stated in Gamma’s manual:

1. State the obvious.
2. Probe the team, ask questions: What does ‘DONE’ mean? Coded + Unit Tested + QA’d?
3. Do not assume anything.
4. Repeat yourself. Say the same thing several times in different ways. Ask team to state what you are asking of them on their own words.
5. For example: You explain to the offshore team that they need to complete ‘X’ by Friday. Ask them if they understand, and they say ‘Yes’. ‘Yes’ could mean they understand that you want them to complete the work by Friday, and not that they are accepting/owning the responsibility of completing the task by Friday.
6. Restate the obvious.

In sum, the IT SMEs equipped with communication capability have effective communication strategies in place and apply them consistently. These firms are inclined to form non-local partnerships.
Proposition 1c:

*IT SMEs equipped with communication capabilities are likely to overcome the communication challenges associated with distance. Thus, these firms show a greater propensity to establish non-local service partnerships compared to the firms lacking relevant capabilities.*

7.1.4 Relationship Management and Bonding Capability

According to Schreiner et al. (2009), bonding is the social integration between partners. In a non-local partnership, the possibility of social integration is lower due to the limited number of interactions. The firms attending conferences, user group meetings, and community activities have a greater chance to create this bonding with the partner.

However, data suggest that the bonding is not limited to socialization; firms with non-local partnerships fostered their relationships to strategize together with the partners, i.e. to exchange expectations, get feedback, review market information, align business perspectives, and discuss future cooperation opportunities.

I meet with them frequently in person to analyze the current state of the relationship, to analyze the projects that we are working on together, to talk about new opportunities how can we go after new projects, how we can go after new business. [ ] It is both in the project and outside the project. So, a lot of time I just meet with them to strategize how we can collectively go after new business which is not related to a project. It is more how do we target new customers for new services or for existing services but in a new way. [ ] One of the owners of that offshore firm, I talk with them every 2-3 weeks. And it is not really the projects. We talk about the projects, as well as we talk about business and opportunities, challenges just to make sure we communicate the channels are open. *Psi, II*

In this context, though limited compared to the local partnerships, bonding capability corresponds to the ability to manage the relationship consistently both during and outside of the
project periods. The IT SMEs having this capability can effectively manage the relationships over distance even during off periods; this approach help them to reconnect with partners when a cooperation opportunity arises.

Proposition 1d:

IT SMEs equipped with relationship management and bonding capabilities are likely to overcome the relationship challenges associated with distance. Thus, these firms show a greater propensity to establish non-local service partnerships compared to the firms lacking relevant capabilities.

7.2 Organizational Proximity between Partners

Belonging to the same space of references and sharing routines, values, and norms, organizational proximity facilitates interactions between actors over geographical distance (Torre and Gilly, 2000; Torre and Rallet, 2005; Oerlemans and Meeus, 2005; Knoben and Oerlemans, 2006). This type of proximity can be built through firm- and individual-level social and professional networks (Torre and Rallet, 2005; Bierly III and Gallagher, 2007); firms within a network build trust more easily with other members, despite geographical distance or indirect ties, compared to outsiders (Hagedoorn et al., 2009). Consequently, organizational proximity facilitates non-local partnership formation.

Data highlights affiliation through networks, shared values between partners, and a partner’s local representation as the dimensions of organizational proximity in non-local partnership context. First, a partner’s affiliation with the focal firm influences non-local partnership formation positively. Examples for affiliation are firm’s memberships to reseller partnership programs, technology associations, or user groups. Reseller partnership programs are
the technology networks created by the suppliers (e.g. Microsoft, IBM), providing a common platform for its members, i.e., IT service providers. Embeddedness in these platforms facilitates trust building and communication between members through shared technological norms, standards, best practices, and joint events. Hence, these platforms, or ecosystems, enable partnership formation between geographically distant members.

We are also active in ITA [Illinois Technology Association] and we are very active just like there are lots of users' groups, technology groups on people meet on regularly to learn about specific technologies, we are very active in those communities. That is where people kind of get to know us. And sometimes the partnerships grew up out of that. **Omega, I3**

Microsoft has a website, you can go and look and you search by a specific need. [ ] And then we are going to MS conferences, you know, they have booths, like a tradeshow raid. [ ] Within the Microsoft ecosystem, there is a lot of ways to get contact with them and for them to contact you. **Lambda, I2**

A similar connection can be developed through senior managers’ personal and professional networks. As reported by one of the participants:

Well, geography isn’t that critical. You know if you again look at the evolution of our business, relationships and the networks we participate, a lot of them we build out of Chicago market. I have one guy that does CIO advisory working with us, that is in Boston, another one in Louisville that we are serving the field out there, you know it is mainly the growth and the evolution of relationships with people that myself or my partner worked over the years. **Exploratory Interviews, Participant I4**

The majority of the case firms engaged in active domestic partnerships reported that they relied on reseller programs or platforms, technology firms’ ecosystem, or user groups to search, select and validate non-local partners.

So, typically if Microsoft ecosystem comes in, I always have the discussion at least whether it goes anywhere, because it may be meet my first criteria. **Psi, I1**
Thus:

**Proposition 2a**

*A partner’s proximity to the focal firm in the form of shared networks or affiliation influences non-local service partnership formation positively. IT SMEs are likely to form a service partnership with non-local firms belonging to the same networks.*

Second, organizational proximity is created by shared values between partners as well. The participants reported examples as such making and honoring commitments, customer centric service attitude, employee satisfaction, transparency/visibility for all stakeholders, accountability, and teamwork. These values provide a common reference base for partners in their interactions, making communication and coordination more efficient. Thus, they help close the gap between geographically distant partners. Therefore, evaluating a partner’s values correctly at the initial phase is pivotal for SMEs to build a successful non-local partnership.

We share some values and perspectives. [ ] There we have a like-mindedness from them end that makes it easy to work together and it is part of that success. [ ] So the fact that we both think that way allows us to trust each other more, cause when they tell me something is on track I believe them. **Gamma, I3**

Thus:

**Proposition 2b**

*A partner’s proximity to the focal firm in the form of shared organizational values influences non-local service partnership formation positively. IT SMEs are likely to form a service partnership with non-local firms sharing similar values.*

Third, if the non-local partner has a representation in the focal firm’s locality, the partners can build organizational proximity more easily. Even though being limited in terms of the
functionalities, this presence provides a convenience for SMEs, especially for international partnerships. The expectation is not that the representative performs full functionalities; instead, it is required to act as a bridge between different cultures, a communication interface, and a boundary spanner. By doing so, the partners can understand each other’s environment and culture better through the representative’s eye. In other words, the local representation provides a comfort zone to both parties and acts as a proxy for the geographical proximity. Nevertheless, data suggest that these benefits are more salient to creative services; the focal firms do not necessarily seek this proximity for procedural and system-intensive services such as hosting.

What I prefer having would a point of contact [for the offshore partner] that will come out of here to look at all the work and then to talk back to their people in India. *Exploratory Interviews, Participant 2*

They [offshore firm] have a small sales office in Chicago with two sales people. [ ] Two of the gentlemen came over from their office and we met here in Willis Tower and they told me about their company and I liked what I heard so them. [ ] At that point I decided that we are going to work, that we are going to turn to if we need an offshore presence in implementation. *Rho, 12*

Thus:

*Proposition 2c*

*A partner’s proximity to the focal firm in the form of local representation influences non-local service partnership formation positively. IT SMEs are likely to form a service partnership with non-local firms having representatives in their locality.*

Based on the exploratory interview findings, I initially posited that the organizational proximity might be created indirectly via similarity of employees’ ethnic, cultural, or national backgrounds. These actors can apply a similar frame of references; while interacting, they escalate this shared reference base to the firm level and build the organizational proximity. These shared
backgrounds are advantageous in international relationships to deal with cultural issues and communication problems. However, data do not fully support this argument; none of the case firms engaged in non-local partnerships has reported shared employee backgrounds as a facilitator. Thus, I dropped this proposition.

**7.3 Information Technology Service Type**

The communication literature underlines task characteristics as determinants of communication and cooperation within and among teams (Perrow, 1967; Rice, 1992; Maznevski and Chudoba, 2000). On the other hand, this study provides evidence that the IT service type and its requirements influence firms’ decisions and choices on service provision, sourcing, and ultimately partnership formation. The characteristics of the IT service determine communication and coordination requirements between partners; depending on the extent of communication and coordination, firms choose between local or non-local partners. More specifically, IT service type impacts the extent of required partnership capabilities and organizational proximities.

Previous communication studies identify task characteristics as analyzability and routineness (Perrow; 1967). The analyzable tasks are linear and can be described in detail by procedures whereas the unanalyzable tasks are open to improvisations and creative solutions; they are less predictable and linear to be predetermined in the procedures. Another classification in that research domain is based on importance, ambiguity, complexity and interdependency of the task (Maznevski and Chudoba, 2000). These typologies are generic for any type of tasks. In specifics, Zaheer et al. (2009) categorize IT-enabled services in outsourcing context, based on two knowledge characteristics: system- vs. people-intensiveness, and routineness vs. creativity. However, the case studies unfolded richer details on IT service properties such as the degree of
standardization, complexity, creativity, culture-specificity and physical presence requirement, as described in section 6.3.

First, provision of standard or procedural services (e.g. hosting) is structured, well-defined and highly automatized; these services can be rendered remotely by non-local partners. On the contrary, provision of non-standard services (e.g. IT consulting and creative development) is less structured and automatized; IT firms need to work closely with the customer to define, elaborate or modify the requirements. Second provision of complex services (e.g. business analysis) requires knowledge on multiple business functions or domains and frequent knowledge exchange with the customer. Contrarily, non-complex services (e.g. configuration, coding or bug-fixing) do not necessitate in-depth business knowledge across functions; there is less need for close communication between parties. Third, creative services include design components; each design is unique to a context, hence, non-repetitive and spontaneous. Proximity between the partners and the customer fosters spontaneous creativity. However, routine services (e.g. application testing) are repetitive and redundant; the knowledge exchange between parties is minimal and explicit. Forth, IT services like network design and implementation require the IT firm to be present at customer premises during service provision for immediate intervention, whereas for hosting or EDI services this is not necessary. Finally, the outputs of some IT services, such as user experience and interface design, are culture or demographic-specific. Therefore, the service provider should be preferably from the same culture of the customer to understand the requirements and nuances. Table XXIV presents evidence from both exploratory interviews and multiple case studies.
### TABLE XXIV. IT Service Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Type of Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of standardization</td>
<td>Non-standard vs.</td>
<td>If there is any sort of innovation required with the requirement, if there needs to be a series of tight conversations with the business, if product needs to be developed iteratively, if there is any ambiguity on what is actually going to be built, then we keep it local, both with our team and with any partner that we would bring in. <em>Sigma, I1</em></td>
</tr>
<tr>
<td></td>
<td>Procedural</td>
<td>The hosting business is really more procedural. It is more about the systems and their availability, their uptime and verifications, indications, there are problems. <em>Beta, I1</em></td>
</tr>
<tr>
<td>Complexity</td>
<td>Complex vs. Non-complex</td>
<td>There are times that some of the work is so involved in the business understanding, so the need to understand the business is so deep and so complex, like take a trading situation. We have done work for an energy trading firm. We need to be onsite because the traders are hard people to get their time and we need to be on a schedule time with them and be there onsite and you just need way to much support from knowledge experts. <em>Rho, I2</em></td>
</tr>
<tr>
<td>Creativity</td>
<td>Creative vs. Routine</td>
<td>All of our projects are in combination of, all of our projects involve a creative component. We are doing design. Delivering creative services is very emotional. It takes a lot of conversations, and the conversations they are face to face. <em>Exploratory Interviews, Participant 3</em></td>
</tr>
<tr>
<td>Physical presence requirement</td>
<td>Physical presence required vs. Remotely rendered</td>
<td>[On the network company] It is a physical thing, if someone has a network issue, they want someone to be there physically pretty quick because it’s usually, it just</td>
</tr>
<tr>
<td>Cultural specificity</td>
<td>Culture-specific vs. Non culture-specific</td>
<td></td>
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<tr>
<td>----------------------</td>
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</tr>
</tbody>
</table>

makes them feel more comfortable. *Exploratory Interviews, Participant 10*

The ones that we can have worked remotely are the more development folks, other technical things like setting up an EDI and communications for EDI. Those kinds of things tend to be justified better remotely. *Lambda, I4*

Asking a firm outside of the country to understand clearly the demographics, that sort of psychologies of that subset of the demographic within the single country, I think, it is rare. Even to find a firm even if they are capable with the idea or something like, they can’t really do that kind of a task. [*] In design there is universal maxims you bring into play, but there is also a lot of softer, ethnic, demographic, specific things that you have to pay attention to. They are really great residence of people and it is not about things you do if you have a graphic design book understanding the customers truly. *Beta, I1*

In general, procedural, non-complex, routine, non-physical presence requiring and non-culture-specific services can be rendered remotely by a service provider. Service provision requires explicit or codified knowledge exchange, limited coordination and communication between parties; hence, communication can be easily managed via ICTs. In terms of first-time partnerships, focal firms seek referrals from known parties to select a partner; partner assessment is relatively easy due to standardized and objective performance criteria, and availability of information. Once formed, these partnerships are governed by standard service level agreements and NDAs without close bonding between partners. Consequently, the extent of partnership capabilities is relatively less compared to other services. Likewise, the partners do not need to be organizationally close; the organizational proximity and trust between partners are built through industry standards.
Therefore, IT SMEs even lacking partnership capabilities and organizational proximities to partners tend to form non-local partnerships for these types of IT services.

On the contrary, non-standard, complex, creative, physical presence requiring, and culture-specific services necessitate frequent and close interactions, and tacit knowledge exchange between parties. Service provision might require extensive, context-specific business knowledge, judgment and ad-hoc decisions that involve the customer. Therefore, service providers benefit from geographical proximity to the customer and in case of partnerships to each other; the tendency is cooperate with local partners. Partner assessment is more exhaustive, necessitating detailed due diligence on the candidate. To select partners, focal firms rely heavily on references and validation from their close circles. Once formed, these partnerships are governed by trust and detailed agreements. Project management function is pivotal for service provision; knowledge exchange begs for clear definitions and comprehensive documentation. Hence, the extent of partnership capabilities is greater than it is required for the previous group of services. Similarly, there is a higher need for organizational proximity between partners to build trust. The IT SMEs equipped with relevant partnership capabilities and organizationally proximate to partners are more open to form non-local partnerships for these types of IT services.

Thus:

**Proposition 3**

*IT service type moderates the relationship between partnership capabilities and non-service local partnership formation.*

**Proposition 3a**

*For non-standard, complex, creative, physical presence requiring, and culture-specific IT services, IT SMEs equipped with partnership capabilities show a greater propensity to*
establish non-local service partnerships compared to the firms lacking relevant capabilities.

**Proposition 3b**

*For procedural, non-complex, routine, non-physical presence requiring and non-culture-specific IT services, IT SMEs are more likely to engage in non-local service partnerships without building partnership capabilities.*

**Proposition 4**

*IT service type moderates the relationship between organizational proximity and non-local service partnership formation.*

**Proposition 4a**

*For non-standard, complex, creative, physical presence requiring, and culture-specific IT services, IT SMEs organizationally proximate to the partner show a greater propensity to establish non-local service partnerships compared to the firms lacking this proximity.*

**Proposition 4b**

*For procedural, non-complex, routine, non-physical presence requiring and non-culture-specific IT services, IT SMEs are more likely to engage in non-local service partnerships regardless of organizational proximity with the partner.*

### 7.4 Senior Management Characteristics

The literature posits that a senior manager’s characteristics in terms of cognitive base, values, age, experience, and education shape his perceptions, which in turn influence firm’s strategic choices (Hambrick and Mason, 1984; Tyler and Steensma, 1998; Carpenter et al., 2004;
Pansiri, 2005). In the SME context, this impact is more powerful. SME’s attitudes and behaviors are substantially structured by their founders’ and senior managers’ background, education, experiences, and values (Weaver et al., 1997; Dickson and Weaver, 1997; BarNir and Smith, 2002; Ruzzier et al, 2006; Ulubasoglu et al., 2009; van Gils and Zwart; 2009). Following that logic, I posit that IT SMEs non-local partnership formation is facilitated by senior managers’ background and experience in non-local (domestic and international) relationships. The executives with international and multicultural experience are expected to place more weight on the opportunities and less weight on the threats related to non-local partnerships than those executives with local experience only.

Both exploratory interviews and case study findings support that argument. Data suggest that the firms having senior managers with a consulting background are more willing to engage in distant relationships compared to those with an engineering background. Similarly, senior managers having previous exposures to different cultures are more inclined to take on the cultural challenges associated with distant cooperation. For instance, senior managers of the two case firms having active international partnerships and two case firms in negotiation stage had consulting background. Moreover, senior managers and project managers of three case firms with active or potential international partnerships had previous experience with non-local, international partners. As a counter-example, the senior managers of two case firms having mainly local partnerships had technical background and no exposure to different cultures.

As I said, I worked with Indian programmers and developers in college, so I was familiar with them and wasn’t an issue. [ ] I was comfortable. I’d worked with the same group in NY, and knew them. I knew them beforehand anyway, and I knew I could work with them. Lambda, 11
Thus:

*Proposition 5*

Senior managers’ characteristics influence IT SMEs’ non-local service partnership formation decision.

*Proposition 5a*

*IT SMEs having senior managers experienced in distant cooperation and multicultural environment are more likely to form non-local service partnerships compared to the firms having senior managers with local experience only.*

*Proposition 5b*

*IT SMEs having senior managers with a background open to distant cooperation are more likely to form non-local service partnerships compared to the firms having senior managers with other types of backgrounds.*

What is new about the findings is that, in addition to the direct effect, senior managers’ characteristics affect non-local partnership formation indirectly through firm’s partnership capabilities. Alliance know-how is first encapsulated in the minds of the actors involved in interfirm relationships; then it is translated to the firm-level (Kale and Singh, 2007). For SMEs, these actors are the senior managers or the founders who might possess the alliance know-how from their previous experiences. They transfer this know-how to the firm, and it becomes part of the organizational routines, processes, structures, i.e. capabilities. Thus, senior managers’ previous experiences in distant cooperation trigger partnership capability development at the firm-level. Since SMEs have fewer instances of non-local partnerships, senior management’s role in capability development is crucial in this context. Data highlighted three case firms out of the five
that were engaged in international partnerships; at these firms senior manager or project managers contributed to firm’s capability development in partner assessment, project management, knowledge transfer, communication and expectation management areas. As reported by the participants:

[On relationship management and communication] I was at [college] doing my CS degree, doing my undergraduate degree, and I worked with friends, a lot of folks from India, they just helped me tremendously, they were by far the most talented people I came across. When I needed their help that went with I wanted their help and there were language issues but they were kind enough to help me. Lambda, I1

[On partner search and assessment] We have some people in our company that had done offshore assessment in the past and they lead the evaluation. Gamma, I1

[Having explained the partner search and due diligence approach]
- Prior [Gamma] did you have that kind of an experience in terms of search and due diligence?
- Yes. Very similar, we did similar things. Gamma, I2

[On project management and knowledge transfer] I worked with offshore teams before this one, and that was my experience before. [ ] Actually I created a document to bring down my thoughts after the project. Gamma, I4

[On communication and expectation management] But again something we realized and I had worked with offshore teams before so I was able to catch onto it very quickly and reset expectations. I was able to tell them “hey we are looking for transparency and for the truth. If you are not able to do something it is ok if you let me know that you can’t do it.” Gamma, I4

Thus:

**Proposition 6**

*Senior managers’ characteristics facilitate firm-level partnership capability development.*

**Proposition 6a**

*IT SMEs having senior managers experienced in distant cooperation and multicultural environment build partnership capabilities more easily compared to the firms having senior managers with local experience only.*
Proposition 6b

IT SMEs having senior managers with a background open to distant cooperation build partnership capabilities more easily compared to the firms having senior managers with other types of backgrounds.

7.5 Feedback Cycle to Firm Partnership Capabilities

Exploratory interviews and case narratives reveal the existence of a learning curve in partnership capability development. As some participants described:

Our experience was that it took a lot of time to make it work, a lot of time, effort and money to really get it to the point where it was working efficiently. There is a learning curve. We can’t just send them a project and expect that it is going to come back perfect. [ ] So, there is just a lot we are into learning the proper way to do it, we have learned so that’s fine. Exploratory Interviews, Participant 11

It is [kind of a learning experience]. And it is a management. You have to learn to understand your team and to make sure that you manage them. And sometimes it is harder, because they are remote and basically all you have to go by based on their word, this is something you have to understand and try to guess what is going on. Gamma, I4

I think the communication and the quality are the biggest lessons learned. Psi, I1

These findings comply with organizational learning and capability development literature (Dyer and Singh, 1998; Eisenhardt and Martin, 2000; Kale et al., 2002; Rothaermal and Deeds, 2006; Heimeriks and Duysters, 2007; Ranganathan and Balaji, 2007; Kale and Singh, 2007; Kale and Singh, 2009; Schreiner et al., 2009). Learning is a cumulative and path-dependent process where each step augments firm’s knowledge; repeated practice is an appropriate learning mechanism for capability development (Eisenhardt and Martin, 2000). In internationalization context, Johanson and Vahlne (2003) posit that firms experientially learn in business networks and relationships, which enable them to enter into new markets.
Similarly, I posit that the more the IT SMEs get involved in non-local partnerships, the more problems or challenges they encounter. Solving these problems, the firms accumulate and regenerate the partnership knowledge. Consequently, this knowledge contributes to renewal or modification of existing capabilities or development of new capabilities. This feedback loop from partnership formation process to organizational capabilities represents the evolutionary nature of capability development.

**Proposition 7**

*IT SMEs that learn and gain experience in non-local service partnerships are more likely to develop, adapt, reconfigure, and integrate relevant partnership capabilities increasing the likelihood of forming and continuing non-local service partnerships.*

On another note, previous studies theorize that repetitive partnerships with the same firm unfold in the same context, and this specific context provides a consistent learning environment for the focal firm to accumulate partnership knowledge (Gulati et al., 2009). However, due to fewer numbers of projects, the SMEs rely more on their founders’ and senior managers’ previous experiences as learning opportunities. When the need arises, these individual experiences are transformed to the organizational level and assist SMEs in developing relevant capabilities. As stated in proposition 6b, senior managers or founders play a crucial role in organizational learning and capability development.

Figure 3 summarizes the abovementioned propositions and presents the research framework to explain IT SMEs’ non-local partnership formation behavior.
Figure 3. Research Framework

- **Organizational Proximity between Partners**
  - Affiliation Through Network Membership
  - Shared Values
  - Local Representation

- **Partnership Capabilities**
  - Partner Assessment
  - Coordination & Knowledge Transfer
  - Communication
  - Relationship Management & Bonding

- **Senior Management Profile**
  - Experience
  - Background

- **IT Service Type**

- **SME Non-local IT Service Partnership Formation**
8 CONCLUSION

The knowledge-driven economy has triggered an extended demand for specialized, agile, flexible, and sophisticated IT services (Contractor and Lorange, 2002). To fulfill these requirements, the IT industry transformed itself from a vertically-integrated environment to horizontally-connected segments linked by interactive products and services (Iansiti and Richards, 2006). IT firms, particularly IT SMEs, adapted their business strategies and operational models to compete in this environment: they focused on core specialization areas and complemented their services through partnerships.

Interfirm relationships are well-studied by the academia; however, most of the studies focus on those relationships formed by established, large, or international firms for R&D or innovation purposes. Little scholarly attention has been paid to other types of partnerships in the technology domain (such as IT service provision) or to partnerships formed by the SMEs, in contrast to their importance for the economy. By focusing on SMEs’ non-local partnerships in IT service provision context, this research study aims to fill this gap. Moreover, despite the general tendency among SMEs to partner with other firms in their local area, some IT SMEs are engaged in partnerships with non-local IT firms. Analyzing this phenomenon through trust and proximity lenses, which are crucial for SME interfirm relationships, the study explores the facilitators of this divergent firm behavior.

For this exploratory study, I designed a two-phase empirical study with Chicago IT SMEs. In the first phase of the study, two major facilitators for non-local partnerships emerged from the interviews: firm strategies to overcome distance-related challenges and organizational proximities between partners. Additionally, the type of IT service was found to have moderated the impacts of
these facilitators on formation behavior. Ultimately, these findings helped refine the research questions and provided a well-grounded basis for the next phase.

In the second phase, i.e. multiple case studies, I focused on alliance capabilities, organizational proximities, and senior managers’ characteristics. Using the analogy of relationship formation, I conceptualized IT service partnership formation as a process where partners started structuring the relationship before the operational cooperation began and continuously reconstructed it in and out of the IT projects. This process embraced firm’s activities for partner search, selection, coordination, communication, relationship management, bonding, and governance. The outcome of this phase was the propositions and the research framework.

8.1. Implications for Research

Sorenson and Stuart (2008, p. 266) note that “The most salient shortcoming in the literature pertains to theory that can explain the emergence of ties of spatially, relationally and socio-economic distant actors.” This dissertation makes several contributions to alliance, SME, and IS literature particularly about cooperation between spatially distant actors. First, distinguishing from other types of technology alliances, the study conceptualizes IT service partnerships as a cooperative scheme between IT firms to provide an IT service or product to the market. Focusing on IT service partnerships initiated by SMEs, the study provides evidence that these firms do indeed form service partnerships with other IT firms in the absence of geographical proximity. Due to geographical distance between partners, the non-local partnerships are disadvantaged in terms of trust development, a pivotal mechanism in SME relationships, and relationship management. The study provides evidence that, as discussed in sections 7.1 and 7.2, partnership capabilities and organizational proximities compensate for the lack of the geographical proximity. These two major factors enable trust building over distance and facilitate the non-local partnership formation.
Second, the study introduces the role of IT service type on service provision and sourcing strategies, hence, the partnership choices of the IT firms. The type of service moderates the extent of the partnership capabilities and the organizational proximities needed. The data suggests that for commoditized services, clearly defined tasks, and support activities, location of the partner is not important. On the contrary, for creative services, the firms tend to choose local partners. However, the SMEs equipped with partnership capabilities and organizational proximities show a greater propensity to form non-local partnerships for creative services as well.

Third, this research challenges the argument that the firm size is a proxy for firm behavior. I posit that not the size, but firm’s context-specific organizational capabilities play a role in non-local partnerships; the data provides support for this argument. This research contributes to the theory by conceptualizing these capabilities in the partnership formation context and presenting them as a firm’s dynamic capabilities. The conceptualization is based on a process approach, which captures partner search and selection, coordination and knowledge transfer, communication, relationship management and bonding steps. Consequently, I identify the capabilities associated with each step by distinguishing the non-local partnerships from the local ones. Based on empirical findings, I introduce a new dimension in addition to the Schreiner et al.’s (2009) conceptualization: *partner assessment*. Moreover, I enhance the coordination dimension with *knowledge transfer*, and redefine the *bonding* dimension. Finally, parallel to the organizational learning literature (Anand and Khanna, 2000; Eisenhardt and Martin, 2000; Kale and Singh, 2007), I confirm that these capabilities are developed through repetitive practices, i.e., distant cooperation.

Forth, the study unfolds senior managers’ influences on SMEs’ partnership formation behavior, both directly and indirectly. It can be concluded that senior managers are instrumental in SMEs’ non-local partnerships to build trust and manage relationships over distance. On the one
hand senior managers’ characteristics and attitudes directly influence SMEs’ partnership choices, confirming the SME literature (Weaver et al., 1997; Dickson and Weaver, 1997; BarNir and Smith, 2002; Ruzzier et al, 2006; Ulubasoglu et al., 2009; van Gils and Zwart; 2009). On the other hand, these factors indirectly affect non-local partnership formation by facilitating firm-level capability building. This indirect impact is the novel contribution to the theory.

Last but not the least, the research study contributes to the literature by offering an initial typology of IT partnerships, particularly conceptualizing the IT service partnerships.

### 8.2 Implications for Practice

Equally important, this research study has practical implications for IT SMEs’ management. The study provides a conceptual map for IT SMEs’ senior executives and decision makers; this framework will assist them in evaluating the feasibility of non-local partnerships, and help them tailor their partnership strategies according to their particular contexts.

A major implication is that the findings unfold the importance of capability development for resource-constrained SMEs, rather than the deployment of ICTs or the dedication of extra resources. The analysis points out that the capabilities should span across all steps of partnership formation. The firms can operationalize the partnership capabilities in the form of best practices and methodologies in software development, quality assurance, and project management; documentation including specifications and contracts; internal partnership-related roles; and communication strategies. It is evident that for effective communication with non-local partners, SMEs should not rely on ICTs alone, but implement different communication components like mechanisms, tools, layers and style. Eventually, these capabilities help IT SMEs reap benefits from partner’s resources to the maximum, extend their “comfort zone,” and facilitate trust building in unknown territories.
The study shows the value of organizational proximities for SMEs. It will be beneficial for IT SMEs that are already engaged or plan to engage in non-local service partnerships to create organizational proximities with distant partners. A natural way of doing this is being active in technology associations and ecosystems, which provide a platform for its members to interact; indeed, the platform providers (i.e. technology firms) promote these kinds of interactions among their members. Another way to create organizational proximity is to consider a non-local partnership as an investment, rather than a service provision relationship, and develop shared values and norms with the partner. In fact, data proves that IT SMEs that have productive non-local partnerships have invested in these relationships.

Firm partnership strategies should be shaped according to the IT service, as the study proves. While forming non-local partnerships, the managers and decision makers of SMEs should take into account the requirements of the service type and develop capabilities and proximities correspondingly. Moreover, there is an interplay between partnership capabilities and organizational proximities; both provide convenience and confidence in a relationship. Hence, the managers should determine the optimum balance between capabilities and proximities for their firm.

Finally, the research study gives voice to the IT SMEs with regard to their partnerships. The findings present feedback to policy making institutions such as local governments, associations, research, and educational institutions. These institutions might assist the SMEs, which intend to engage in non-local partnerships, in capability development, organizational learning, and transfer of partnership know-how from individual- to firm-level.
9 LIMITATIONS AND FUTURE RESEARCH

9.1 Limitations

There are several limitations to this study. The major limitations stem from the method and the extent of data collection. First, data collection relied on key informants’, i.e. founders and senior managers, reports. Being the sponsor of the study, these executives identified other participants on behalf of their firms; thus, the selection of interviewees was partially driven by the sponsors, instead of the researcher. I was able to interview a few project managers; most of them were absent, working on projects at customers’ premises. Nevertheless, since most of the senior managers were actively participating in daily business, they could offer substantial operational details on partnerships. Moreover, there were limited observation opportunities due to infrequency of the non-local partnership activities and the confidentially. The firms did not share company documents related to their partnerships (e.g. partnership agreements, meeting minutes, e-mails, specs, etc.); instead, they gave me blank copies or templates of NDAs, master agreements, and service level agreements. None of the case firms allowed me to access their partners. Consequently, the data analysis is substantially based on senior managers’ narratives of the focal firms.

Second, the study has a cross-sectional design. Although I analyzed past experiences and firms’ partnerships histories, I did not monitor the case firms during a time period, in multiple waves. Two core concepts of the study, partnership capabilities and formation behavior, have path-dependent and evolutionary characteristics; cross-sectional studies might not reflect the details and temporal aspects of these developmental processes. On the contrary, longitudinal studies span over longer time periods, offering opportunities for repetitive and in-depth observations. Thus, these designs might provide more details on the core concepts.
Related to the data collected, the empirical study has limitations in explaining the governance aspect in SMEs’ non-local partnerships. All participants stated that having FTF interactions, SMEs could build trust with proximate partners easier than they did with distant partners. During these interactions, they could gather more information about partners’ attitudes and behaviors, including opportunistic behaviors, in a faster way compared to the non-local partnerships, and intervene rapidly, whenever necessary. Hence, the local partnerships were governed by trust, i.e. “hand-shaking”. Supplementing that, to define terms and conditions of the cooperation, some firms implemented standardized agreements. In fact, regardless of partners’ location, the firms signed NDAs with their partners; this practice was adopted as an industry standard. On the contrary, in non-local partnerships, “hand-shaking” was not a strong governance mechanism to mitigate the risks. Data revealed that all case firms involved in international software development partnerships utilized strongly-worded and detailed agreements, such as NDAs, master agreements, statements of work and security policies. Thus, governance might be a differentiator between local and non-local partnerships.

There might be alternative explanations on SMEs’ governance choices in non-local partnerships. For example, the literature posits that, in SMEs’ IT outsourcing context, governance design was influenced by appropriation concerns, coordination requirements, dependence and prior experiences with partners (Dekker, 2008). The extent of data collected is limited to test these alternative explanations. First, data on financial value of the partnerships was not collected. Second, in terms of previous experience, the participants stated for how long they have known the partners (e.g. between 2-8 years for both domestic and international partnerships), but did not report how many times they have partnered with the same firm. Considering the infrequent nature of SMEs’ partnerships, I assume that these firms have fewer experiences with the same
international partners. Data is not detailed enough to make further inferences. Moreover, the findings on governance were not detailed enough to distinguish between domestic and international partnerships. Case firms did not report any legal disputes with international partners; hence, it is implausible to assess the effectiveness of their governance mechanisms, i.e. contracts.

A further limitation appeared as the consequence of design choices. In order to increase the control over the settings, I selected only the Chicagoan IT SMEs. A specific location, e.g. urban settings, provides intermediary space for individual-, firm-, and institution-level interactions (Torre and Gilly, 2000; Gertler, 2003), and the characteristics of this location impacts firm decisions and behavior (Todeva and Knoke, 2005). Hence, focusing on Chicago helped eliminate contextual differences on firm behavior. At the same time, this focus limited the external validity or generalization across different settings. However, since generalization is of lesser concern with qualitative studies, I believe this would be a minor disadvantage.

Another concern would be the focus on specific IT subsegments such as software development and IT consulting firms. The first phase of data collection showed evidence that software development and IT consulting firms had richer experiences in partnerships including non-local ones, compared to other type of IT firms. In other words, software development and IT consulting firms offered richer contexts for case studies. Accordingly, I have narrowed the scope of the subsegments, excluding the other types of IT firms, such as network, infrastructure, and IT operations, from the analysis. However, I argue that there is a less chance to find cases representing the combinations required by the design and even so, including them would require increasing the number of cases substantially.

To summarize, the abovementioned issues, particularly on research design and data collection, have posed limitations to this study.
9.2. Future Research

The findings and limitations of this exploratory study serve as a foundation to explore IT SMEs’ non-local service partnerships with other IT firms. In particular, limitations relating to model specification, operationalization, measurement and data collection provide direction for future research. Definitely, more detailed empirical research is required that can delve into these practices more deeply. Here, different approaches may be of interest for researchers. For example, longitudinal case studies will increase our understanding on partnership formation and capability development processes. On another note, partnerships take at least two to tango. Listening to the partners’ narratives and include their perspectives might enrich the case study analysis. Moreover, the theoretical contribution calls for testing. For that purpose, researchers will want to work further on operationalization and measurements of the constructs introduced and test the hypotheses derived from these propositions via quantitative methods.

Future research may seek alternative explanations on SMEs’ capability development and its antecedents in non-local partnerships. In-depth analysis can be instrumental to unfold how SMEs develop partnership capabilities and whether these capabilities show difference in non-local partnerships, i.e. domestic and international. This research will also illuminate the senior managers’ impact on capability development process.

To overcome one of the limitations of this study, the researchers might analyze SMEs’ governance choices in non-local partnerships and test alternative explanations. On the one hand, the governance choices can be explained by a partner’s embeddedness in the firm’s networks (Uzzi, 1997; Hagedoorn et al., 2009). Two types of partners are considered to be embedded or local: prior partners and ties that are connected to the focal firm through common partners (Baum et al. 2005; Sorenson and Stuart, 2008). Embeddedness and geographical proximity between
partners reduce governance costs due to trust; on the contrary, partnering with unembedded, non-local ties requires more costly governance mechanisms until trust is established (Uzzi, 1997). Implicit in this argument is the organizational proximity concept that I introduced as a facilitator of SMEs’ non-local partnerships in section 7.2.

On the other hand, governance can be presented as a dimension of partnership capability. In non-local partnerships, distance does not discourage the competition between partnering IT firms. Specific for the international partnerships, conflict resolution becomes more complicated due to legal issues and regulations on technology transfer, IP, copyrights, and privacy laws (Rao, 2004). For resource-constrained SMEs, the governance capability might represent the ability to design and implement mechanisms such as contractual structures to protect customer ownership, intellectual property and internal resources. IT SMEs equipped with this capability might overcome the governance challenges associated with distance. Thus, they might be more likely to form non-local service partnerships compared to the firms lacking relevant capabilities. To summarize, future research might elaborate the relationship between governance choices and non-local partnership formation, explained by either partnership capabilities or organizational proximities.

Similarly, future research might increase our understanding on how partnership value impacts the governance choices in non-local partnerships. The literature posits that the governance choices are influenced by appropriation concerns and coordination requirements in SME IT outsourcing context (Dekker, 2008). Utilizing TCE to analyze the appropriation concerns, previous research posits that exchange hazards arise as a function of transaction characteristics. Being the major appropriation concern, a transaction’s financial value augments these hazards; firms having high-value transactions face a larger potential loss (Dekker, 2008). Thus, these firms are likely to
employ extensive governance structures in order to safeguard their investments (Gulati and Singh, 1998; Dekker, 2008). However, in the SME context, TCE might be a limited theoretical lens. The theory focuses on transaction cost minimization rather than value maximization in partnerships (Gulati, 1998), whereas the value creation is pivotal for the SMEs. The findings suggest that the IT SMEs consider the service partnerships as long-term investments rather than short-term service provision vehicles, because it takes long to build trust and once built, the firm has a higher stake in the partnership. As reported by the participants:

Think about a company like ours, to construct a partnership and to maintain it, this is investment. Sometimes, always in time, it is an intellectual bandwidth, how we design this, how to solve the problems. We have to invest in money too. We have actually to turn to market, market of collaborative services as more offered to the market place and it is investment of money. [ ] So it is investment in all of these dimensions. Beta, I1

It is very important that they are long term because we build trust. [ ] In fact, in partnerships I view the return on investment in long term. Psi, I1

Considering this investment perspective, I posit that, for the SMEs, not the face value of the contract but the value of the partnership is more crucial. Conceptualizing and operationalizing the partnership value, future research will shed light how this factor impacts SMEs’ governance choices in non-local partnerships.

As another influential factor on governance choices, coordination requirements result from task characteristics, in particular task interdependence. Alliances that perform more interdependent activities tend to implement more complex governance structures (Gulati and Singh, 1998). Supporting this argument, data provides evidence that the IT service type affects the governance structures. For example, the case firms partnering for software development designed and implemented extensive contracts, regardless of partner’s location. On the other hand, the firms partnering for hosting, product customization and integration did not create contracts, instead they
utilized either partners’ service level or reseller agreements. Thus, the individual and joint effects of partnership value and IT service type on SMEs’ governance choices and how these factors influence non-local partnership formation requires further research.

An emergent finding of this study is the role of service provision technologies in non-local partnerships, in other words how ICTs for service provision influence SMEs’ formation behavior. For example, the participants stated that technologies enabling remote deployment, intervention, and cloud interactions encouraged the non-local partnerships whereas more traditional technologies required on-site, proximate cooperation:

Strangely enough, it [partnership choice] would probably depend on the technology. So Ruby on Rails is a little bit unique comparison to the other things we do and there is some easy to do development in the cloud. When you get into .NET or Java or some of the more traditional technologies, usually you are talking about internal working at a customer where they want to be team onsite. So, then almost everything has to be local. Rho, I3

As new service provision technologies emerge in IT industry, we need to understand their influence on strategies and practices of the service providers, including partnership formation. Thus, the researchers might include characteristics of the service provision technologies in the model as a factor, either as a dimension of IT service type or a separate variable. Any approach will contribute both to the theory and the practice.

Another future research avenue is the effect of technology platforms or ecosystems (e.g. Microsoft, IBM) on SMEs’ service partnership formation. Data indicate that these platforms are regulated by a technology provider in a program format (e.g. Microsoft Partnership Program); becoming a member requires the platform provider’s approval via certifications. Moreover, the study provides evidence that these platforms create organizational proximities and enable service partnership formation between geographically distant IT firms that happen to be members of the same platform or the ecosystem.
We have formal partnership with Microsoft at different levels. I mean, Microsoft partner program we are a part of, and then we are in the Microsoft respond program for startups, and we engage with kind of the Microsoft ecosystem, we just buy the process to engage with pinpoint which is basically Microsoft partner kind of service. *Exploratory Interviews, Participant 16*

Microsoft has a website, you can go and look and you search by a specific need. [ ] Within the Microsoft ecosystem, there is a lot of ways to get contact with them and for them to contact you. *Lambda, I2*

Borrowed from biology, the ecosystem metaphor is a useful lens to study interfirm relationships and partnerships (Adomavicius et al., 2006). In biology, the ecosystem describes a habitat or a similar ecological unit of coexisting organisms which continuously interact with each other to grow and survive; the key concept is the relationship among the constituents (Adomavicius et al., 2006). Moore (1993) adapts this metaphor to business where organizations and individuals in an economic community interact and depend on each other for survival and effectiveness. Members of a business ecosystem are firms, their customers and suppliers, associations, research and educational institutions and government.

Applying this metaphor, Iansiti and Richards (2006) describe IT industry as an economic and social community that constitutes of highly interconnected network of IT firms, technologies, products and customers. In IT industry, there are two critical roles: application (e.g. SAP) and platform (e.g. Windows, Linux) providers. The platform providers define common interfaces as well as reusable components, offer building blocks for the application providers to develop their business on, and, thus, act as “keystones” to their ecosystems (Iansiti and Levien, 2004; Iansiti and Richards, 2006). Doing so, the platform providers enhance productivity, innovation and efficiency in their ecosystem, but also create interdependencies among IT firms. Hence, these platforms represent unique, competitive and diversified ecosystems (Iansiti and Richards, 2006), that enable
cooperation. As a future research alternative, the researchers might be interested in exploring the role of these platforms and the platform providers in IT SMEs’ service partnership formation.

Last but not the least; future studies may extend this research by replicating the study in different industries and locations. First, this research offers an example of same-industry partnerships based on operational collaboration. The unique feature of this context is that it opens the door for simultaneous competition and cooperation, i.e. “co-opetition.” In that sense, future studies can expand this theoretical model by studying other industries, of course in the SME context. Second, we know that location influences firms’ behaviors and interactions with the environment, but this study does not explain that impact. By comparing findings across different settings, future research will elaborate the location’s role in IT SMEs’ service partnership strategies. Chicago is representative of American urban areas. Thus, it is more beneficial to replicate the study across different types of settings, such as IT clusters, industrial regions, and technology zones. There is definitely merit in analyzing the phenomenon in different cultures and countries.
CITED LITERATURE


32. Casey, K. Information Week. 06/03/2011. 


http://www.vantagepartners.com/uploadedFiles/Consulting/Research_And_Publications/Smart_Form_Content/Publications/Research/Managing_Alliances_for_Business_Results.pdf


# APPENDICES

**Appendix A: Exploratory Interviews - Firm Demographics**

<table>
<thead>
<tr>
<th>Firm</th>
<th>IT Service Type</th>
<th>Size</th>
<th>Year of Est.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm 1</td>
<td>IT Operations</td>
<td>Micro</td>
<td>2006</td>
</tr>
<tr>
<td>Firm 2</td>
<td>Software Development</td>
<td>Small</td>
<td>1991</td>
</tr>
<tr>
<td>Firm 3</td>
<td>Software Development</td>
<td>Small</td>
<td>2001</td>
</tr>
<tr>
<td>Firm 4</td>
<td>Software Development</td>
<td>Small</td>
<td>2003</td>
</tr>
<tr>
<td>Firm 5</td>
<td>IT Infrastructure</td>
<td>Small</td>
<td>1997</td>
</tr>
<tr>
<td>Firm 6</td>
<td>Software Development</td>
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<td>1973</td>
</tr>
<tr>
<td>Firm 7</td>
<td>Software Development</td>
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<td>1981</td>
</tr>
<tr>
<td>Firm 8</td>
<td>IT Consulting</td>
<td>Medium</td>
<td>1999</td>
</tr>
<tr>
<td>Firm 9</td>
<td>IT Operations</td>
<td>Micro</td>
<td>1998</td>
</tr>
<tr>
<td>Firm 10</td>
<td>Software Development</td>
<td>Medium</td>
<td>1998</td>
</tr>
<tr>
<td>Firm 11</td>
<td>IT Infrastructure and Software</td>
<td>Small</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm 12</td>
<td>Software Development</td>
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<td>2002</td>
</tr>
<tr>
<td>Firm 13</td>
<td>IT Security and Compliance</td>
<td>Micro</td>
<td>2008</td>
</tr>
<tr>
<td>Firm 14</td>
<td>IT Consulting</td>
<td>Small</td>
<td>2006</td>
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<td>Firm 15</td>
<td>Software Development</td>
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<td>2001</td>
</tr>
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<td>Firm 16</td>
<td>Software Development</td>
<td>Micro</td>
<td>2008</td>
</tr>
<tr>
<td>Firm 17</td>
<td>IT Consulting</td>
<td>Small</td>
<td>2001</td>
</tr>
</tbody>
</table>
Appendix B: Exploratory Interviews - Interview Protocol

INTERVIEW PROTOCOL AND INFORMED CONSENT

You are being asked to participate in a research study called “Service provision partnerships between IT firms and factors impacting the choice of partner's location” performed by Melike Findikoglu, PhD student at University of Illinois / Chicago. The objective of this research study is to analyze IT partnership strategies of small and medium size IT firms (i.e. max. 250 employees), the profile of chosen partners and the impact of firm's, partner's and customer's location on partnership choices. In other words, the aim is to understand the partner choice from a locational perspective and motivations behind. The partnerships in focus are those set between IT firms either for service provision to the market or for sourcing of internal IT activities.

Our interview will take approximately 30 minutes. During the interview, I will ask questions to direct our conversation; however, I appreciate if you can give additional information which you might think increase my understanding on your partnership choices and relationships with other IT firms. At this stage I aim to gather expert opinion to refine the research model. So, please correct me if I use the terminology in a way which does not fit to the IT industry or your business model.

After the completion of the research study, I will present you an executive summary of high level, aggregated findings.

Your participation to this research study is completely voluntary; your decision whether or not to participate will not affect your current or future dealings with the University of Illinois at Chicago. Your confirmation to be interviewed in context of this protocol will be considered as your informed consent to participate. You may reject to answer some of the questions or you may withdraw at any time during our conversation. With your consent, I will tape record this interview.
for transcription purposes. If at any time you would like me to turn the recorder off, please let me know.

The information you will provide during the interview will be used solely for the purposes of my dissertation project and will be kept strictly confidential. The recorded interviews will be transcribed for analysis. Both audio files and transcriptions will be accessible only to me and my advisor, Dr. Mary Beth Watson Manheim. All files and your contact information will be saved for archival purposes during the course of the research study and stored in secure environments, i.e., password-protected. When the results of the research are published or discussed in conferences or in journals, no information will be included that would reveal the identity of you and your firm.

If you have further questions, please contact me, Melike Findikoglu at mfindi2@uic.edu before or after the interview.

Name of Interviewee:

Title of Interviewee:

Date of Interview:

Place of interview:

1. Firm demographics
   a. What is the size of your firm i.e. number of total employees and IT workforce?
   b. When was your firm established?
   c. For how long has your firm been in Chicago? And why?

2. Services and products offered
   a. What kind of IT services does your firm provide? [Follow up examples: software /application/platform or services]
b. What is your firm’s competitive advantage in the market? [Follow up examples: cost – price, differentiation, quality, product innovation, time to market]

3. Customer information

a. What is your firm’s target customer market?  [Follow up: customers’ industry and size]
b. Where does your firm operate mainly i.e. inside of Chicago, outside Chicago in US, or outside of US?

4. Partnership definition

a. How do you describe partnerships in your business?
b. What is the role of partnerships in your business and IT industry in general?
c. What type of partnerships do you have with other IT firms?

5. Impact of partnerships on competitive advantage

a. What is the impact of your partnership strategy on your firm’s competitive advantage? [Follow up examples: cost – price, differentiation, quality, product innovation, time to market]
b. How do you avoid direct competition in your partnerships?

6. Sourcing strategy – partnership perspective

a. How does your firm source internal IT activities, what services are in-sourced and out-sourced? Why do you choose so?
b. If you outsource any internal IT activity, how do you choose partners? Are there any criteria to select partners? And why?
c. If applicable, please describe existing partners in terms of size, subsector, and capabilities. Are these firms located in Chicago, outside Chicago or outside US? Do you have any locational preference? Why?
d. Are these long term and strategic partnerships? Or short-term partnerships? Why?
e. What are the benefits/challenges of these local or non-local partnerships?

7. Service provision strategy – partnership perspective

a. How does your firm provide IT services to the market i.e. directly by your firm or jointly with other IT firms? Do you subcontract?

b. Do you partner up with other IT firms? If so, what is the rationale behind, under what conditions? If not, why so?

c. What services are offered directly, what services are offered jointly? Why do you choose so?

d. If you cooperate with other IT firms, how do you choose partners? Are there any criteria to select partners? And why?

e. If applicable, please describe existing partners in terms of size, subsector, and capabilities. Are these firms located in Chicago, outside Chicago or outside US? Do you have any locational preference? Why?

f. Do customer preferences impact your partnership choices especially in terms of location? If so, to what extent?

g. Are these long term and strategic partnerships? Or short-term partnerships? Why?

h. What are the benefits/challenges of these local or non-local partnerships?

8. Experience with distant/non-local partnerships.

a. [If not stated before] Have you ever considered engaging into distant partnerships (out of region, global)? Why or why not?

b. What do you consider as advantages or disadvantages of distant relationships?

c. What do you think is your firm’s strengths or weaknesses for setting and maintaining distant relationships?

9. Other partnerships
a. Do you have partnerships with other type of firms (e.g. customers, other services firms, universities, research institutions, universities, public offices)? If so, what is the purpose of this cooperation?

10. Firm location

a. What aspects of Chicago are important for your firm’s being located here? Considering your business model, can you think of any advantages or disadvantages of being located in Chicago?
   [Follow up examples: infrastructure & transportation / availability of specialized labor/ proximity to customers/ existence of other services companies/ government support / existence of IT community, associations, networks, research and educational institutions]

11. Impact of economic crisis

a. How do you think has the current economic crisis influenced your partnership strategy?

Thank you for your time and contribution.
### Appendix C: Exploratory Interviews - Codebook

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
</tr>
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<tbody>
<tr>
<td>Customer location</td>
<td>Local to Chicago</td>
</tr>
<tr>
<td>Customer location</td>
<td>Chicago and Midwest</td>
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<td>Customer location</td>
<td>Across US</td>
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<td>Customer location</td>
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<td>Partnership type</td>
<td>Service provision</td>
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<td>Service / Talent/ Capability complementarities</td>
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<td>Business development</td>
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<td>Partnership motivation</td>
<td>Peak and valley management / Resource Management</td>
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<td>Partnership motivation</td>
<td>Enhanced / Better customer service</td>
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<td>Partner's location</td>
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<td>Partner's location</td>
<td>Prefers local</td>
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<td>Partnership challenges</td>
<td>Customer ownership</td>
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<td>Communication / Information transfer</td>
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<td>Loss of control over quality</td>
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<td>Time zones</td>
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<td>Offshore relationships / SW Development</td>
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<td>Sees prospect (with reserves or at later stages)</td>
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<td>Cost</td>
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<td>Credibility / Track record</td>
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<td>Prior international consulting experience</td>
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<td>Spec preparation and information transfer</td>
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<td>Administrative capabilities</td>
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<td>Partner selection criteria</td>
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<td>Convenience</td>
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<td>Need for FTF contact</td>
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<td>Why local partner preferred</td>
<td>Cost matters</td>
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<tr>
<td>Why local partner not necessary</td>
<td>Services can be rendered anywhere</td>
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<td>Relationships and networks matter</td>
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<td>Customer’s location matters</td>
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<tr>
<td>Why local partner not necessary</td>
<td>Cost matters</td>
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Appendix D: Exploratory Interviews - Partnership Decision Flow Maps

- Decision Trigger
- Action / Decision
- Evaluation
- Factor / Influencing variable

1. Firm 15

![Decision Flow Map for Firm 15]
2. Firm 11
3. Partner’s Location Choice - Facilitators and Inhibitors / Common Pattern

- Proximity to partners / convenience
- Type of partnership
- Location of partner
- Need for FTI
- Nature of product / service
- Proximity to customer
- Cost concerns

Location matters:
- Local partnership
- Domestic partnership
- International partnership

Facilitators:
- Proximity provides convenience
- Culture of Chicago in favor of partnerships
- Chicago being hub / centrality
- Nationwide reseller ecosystem
- Access to CMM
- Cheaper costs
- Service can be rendered anywhere
- Well defined tasks
- Presence of local contact
- Wide networks

Inhibitors:
- Communication problems
- Timezones / Availability
- Loss of control over quality
- Loss of control over delivery process
- Local customers
- Lower travel costs
- Local communities associations
- National market coverage
- Credibility needed
- Market demand

(-)
Appendix E: Multiple Case Studies - Case Study Protocol (adapted from Pervan and Maimbo, 2005) (Partial)

A. INTRODUCTION TO CASE STUDY AND PURPOSE OF THE PROTOCOL

This research study aims to seek answers to the below questions:

- Which factors influence IT SMEs’ decision on non-local service partnership formation?
- How do these factors enable distant collaboration between IT firms for service provision?

The service partnerships to be analyzed are those set with other IT firms in order to provide a service or product to a client under a project framework. That definition excludes partnerships formed for marketing, business development or referral purposes. Similarly reseller type of partnerships set with product providers (e.g. Microsoft, Adobe, IBM, and SAP) to sell their products are out of the scope due to the different nature of the cooperation. Additionally I exclude the partnerships with other service providers where the focal firm outsources its internal IT operations which are not directly associated with a client. The service subject to partnership might vary, but the focal firm’s segment is constrained to software development and IT consulting that includes software development activities only. Nonlocal partners are those located across or outside of US. The SME definition of this study embraces small and medium size firms excluding micro ones. The size of the focal firm, i.e. the total number of the employees should be between 11 – 250. That figure includes employees in all premises if the firm has multiple locations. The spatial setting of the study is Chicago metropolitan area. Case study candidates are the firms which have their headquarters and their operational base in this urban setting. In order to control the locational aspects and isolate inter-locational interactions within same firm, firms with multiple locations
especially in different countries (i.e. global and international firms) will not be considered. In order to reflect the real partnership experiences and the learning effect on strategies effectively, the focal firm has to have old enough, i.e. older than 3 years. In other words, the startup companies will not be analyzed since they might not have enough experiences.

The nature of this research is exploratory of the details, and it aims to build theory rather than testing. The exploration of the phenomenon begs for detailed analysis via collection of rich, thick and context specific data. Therefore, case study methodology is the most appropriate approach to increase our understanding on this partnership phenomenon. The roadmap discussed by Eisenhardt (1989) will be followed for constructing the case studies.

Multiple case studies generate more robust, generalizable and testable theory; increase the possibility for replication, extension and elimination of alternative explanations. In this study, I will pursue the same approach and analyze multiple cases. Selection of cases will be theoretical rather than random or stratified because the key concept is replication rather than generalization. In order to observe to contrasting patterns, i.e. local vs. non-local partnership formation, I will employ a polar case design. To emphasize contrasts in SME behavior on partnership formation, I will sample 3 groups of software or IT consulting firms: (1) firms without any IT partnerships, (2) firms cooperating with local partners only, (3) firms having both local and non-local IT partnerships. The last category includes non-local IT firms based across and outside of US. The first group will serve to contrast the partnerships; therefore the scope of the case study is limited. The second group will serve as a control group.

The purpose of this case study protocol is to present the roadmap for conducting case study methodology in order to explore the phenomenon described above.
B. PROCEDURES

1. Data Collection Procedures

Data will be collected through multiple interviews at each sample firm with C-level executives, partners, senior manager that are engaged and responsible for partnership strategies, formation, and management, as well as officers or employees involved in partner interactions. Depending on the size of the firm and the breadth of the partnership portfolio, I will interview 2-4 key informants. The interviews will take place at the firm and take approximately 1 hour each. With the approval of the respondent, interviews will be digitally recorded for transcription and archival purposes. Other sources are any public data, information available such as corporate webpage, company blogs and news. Since these firms are small, most of them will be private; thus, there will be limited publicly available information. Subject to firm approval, other sources to analyze are the artifacts related to partnerships, including documents, protocols, contracts, meeting minutes, and emails. The information technologies for collaboration (e.g. tools, platforms, and company specific applications) will also be analyzed for triangulation purposes.

2. Recruitment Procedures

For recruitment, various sources will be referred such as personal networks, former colleagues, technology associations (e.g. Illinois Technology Association ITA, Society for Information Management SIM), and groups on professional social networking sites (e.g. Chicago Technology Network, Technology Leaders Association in LinkedIn, Tech Cocktail). Participation will be promoted through communication with association officers, and periodic postings on social networking sites. Also, members of UIC’s Center for Research in Information Management (CRIM) will be invited through e-mails. Another recruitment method utilized will be the snowball sampling, as interviewees will be asked for referrals to other qualified participants. In parallel to
that effort, eligible firms will be searched online and senior managers will be invited personally. Participants who agreed to be interviewed will be validated according to sample criteria, including size, industry and location.

3. Field Procedures

Once eligible firms are identified, the case study approached will be implemented as follows:

1. Recruitment:
   a. Personalized emails introducing the project and requesting an opportunity to interview is sent to the partners, founders, c-level executives of the firm.
   b. Public announcements are posted on bulletin boards and group pages on social networks.

2. Reminder: A week later, the invitees are reminded via the second email for invitation.

3. Calls: Another week later, the researcher calls the invitee and requests an opportunity to interview.
   a. If the invitee agrees, the researcher sends the interview protocol including the informed consent to the invitee and schedules a meeting.
   b. If the invitee declines to be interviewed, the researcher thanks and hangs up.

4. If the person has applied himself directly, the researcher scans the firm information and checks the validity of the applicant.
   a. If the firm is eligible, the researcher sends the interview protocol including the informed consent to the invitee and schedules a meeting.
   b. If the firm is not eligible, the researcher sends a thank you message to the applicant.

5. The researcher agrees with the participant whom to interview and in which sequence. The participant, usually a senior person, becomes the research sponsor and makes arrangements.
6. The researcher asks to fill the questionnaire before the interview.

7. Before the interview, the researcher gathers public information on the firm via Internet resources and makes the relevant preparations.

8. The researcher meets the participant as scheduled to conduct the interview according to the following protocol:
   a. Introduce herself, briefly remind the research topics
   b. Explain the interview process and how long it will take.
   c. Ask for access to relevant documentation
   d. Ask if the participant has any questions about the project, if any, clarifies the issues.
   e. Read the informed consent
   f. Ask for permission to record the interview.
      i. If given permission to do so, turn on the tape recorder and proceed with the interview, also taking notes.
      ii. If not given permission to use a tape recorder, proceed with the interview, recording it with notes only.

9. During the interviews, the researcher should:
   a. Direct the participant according to the interview protocol by leading with opening questions and offering probes
   b. Take notes, observations
   c. Review firm documentation
   d. Keep track of the recording
   e. Keep track of time window available
   f. Observes participant approach to judge
10. At the end of the interview, the researcher should:
   a. Address any questions
   b. Ask whom to interview next, and demand that this person should be notified by the sponsor
   c. Set the timeline
   d. Return any documentation
   e. Thank the participant
   f. Remind the person that she/he will be sent a copy of the individual case report or interview report and will be asked member-checking

11. If the research sponsor does not agree to allocate other firm resources for the research, classifies the firm data as supporting document rather than a case.

12. Once back at the office, within a week of the interview, the researcher
   a. Transcribes the interview verbatim.
   b. Prepares a brief case report.
   c. Sends a thank you note to the research sponsor in the firm
   d. Asks for referral to any other eligible firm

13. The researcher moves to next interviewee if available, repeats the procedure till done with all participants.
Appendix F: Multiple Case Studies - Interview Protocol

INTERVIEW PROTOCOL AND INFORMED CONSENT

You are being asked to participate in a research study called “IT SMEs and Non-local Service Partnerships: An Assessment of Facilitators” performed by Melike Findikoglu, PhD student at University of Illinois / Chicago. The objective of this research study is to analyze service partnership formation of small- and medium-sized IT firms (i.e. max. 250 employees) including factors enabling non-local (i.e. distant) collaboration. The partnerships in focus are those set between IT firms for service provision to the market.

The interview will take approximately 1 – 1.5 hours. During the interview, you will be asked questions on your firm’s IT partnership strategies, choices, and factors influencing these decisions, and how the relationships with the partners are managed. With your consent, I will tape record this interview for transcription purposes. If at any time you would like me to turn the recorder off, please let me know. In addition to that, access to partnership-related documents will be requested to support our discussion on IT partnerships. Examples of this documentation are agreements, protocols, meeting minutes, communication notes including e-mails, corporate policy and procedures.

The information and the documentation you will provide will be solely used for the purposes of my dissertation project and will be kept strictly confidential. The recorded interviews will be transcribed for analysis. Audio files, transcriptions and firm documents will be accessible only to me and my advisor, Dr. Mary Beth Watson Manheim. All files and your contact information will be saved for archival purposes and stored in secure environments, i.e., password-protected files.
and locked cabinets. Findings will be reported at aggregated level only. When the results of the research are published or discussed in conferences or in journals, no information that would reveal the identity of you, your firm and your partners will be included. Similarly, my dissertation will not include any individual- and firm-level identifier. Following the completion of the research study, an executive summary will be presented to your firm.

Your participation to this research study is completely voluntary; your decision whether or not to participate will not affect your current or future dealings with the University of Illinois at Chicago. Your confirmation to be interviewed in context of this protocol will be considered as your informed consent to participate. However, you may reject to answer some of the questions or you may withdraw at any time during our conversation.

If you have further questions, please contact me, Melike Findikoglu at mfindi2@uic.edu.

Part 1: Background information

If possible, questionnaire to be filled before the interview by the most senior manager / partner / founder or CEO of the firm. The information on partnerships will be reviewed during the interview.

Check who actually filled out the form.

A. Please describe your role in the firm. For how many years are you working here? (Title)

B. Please provide background information on your firm.

1. Number of employees (sales vs. technical vs. administrative or any other breakdown applicable to your firm)

2. Date / Place of establishment
3. Founders
   a. Founders & background
   b. Are founders still engaged in operations and/or strategy setting?

4. Current organization structure (organization chart) / Officers responsible for partner search, selection, management

5. Business locations (please provide the purpose of each location)

C. What are the IT services and products offered by your firm?
   a. What kind of IT services does your firm provide? How do you source these services: insourcing vs. outsourcing vs. partnering and Why?
   b. What are the technologies utilized in your firm to provide these services?
   c. What is your firm’s competitive advantage in the market with regard of these services? [Examples cost – price, differentiation, quality, product innovation, time to market]

D. Please describe your customer segment.
   a. What is your firm’s target customer market by industry and size?
   b. Where are the majority of your customers located?

E. Partnership portfolio (partnerships with other IT firms only)
   Partnership scope: Any form of collaboration set between IT firms in order to provide service to the market (referral, marketing and reseller type of partnerships are excluded)
   Please list at least three IT partnerships based on importance to your business. The names of the partners are not required.
Part 2: Partnerships

1. Please briefly describe your role in terms of partnership formation decisions or partnership management.

2. Please give information about your firm’s partnership strategies with other IT firms.

   Opening question:
   a. What is the role of partnerships in IT industry?
   b. What is the role of partnerships in your business?

   Probes:
   a. What are your firm’s partnership strategies with other IT firms?
   b. For what purposes do you partner up with other IT firms? (e.g., reseller, trading, marketing, referral) Do you have reseller type of partnerships?
   c. What services are subject to partnerships with other IT firms? Why do you choose so?

3. Overview of previously submitted information on firm’s partnership portfolio (Partnerships listed in the questionnaire will be prioritized by the participant for detailed review. Considering the time limitation, only important ones will be analyzed in detail)

4. Please explain your partner choices (formation) in terms of the location of the partner and the rationale behind.
For firms with local partnerships only:

a. Why do you partner only with local firms only? What are the benefits of that?

What are the factors inhibiting you to form non-local partnerships? In terms of firm / partner / customer / task / founder – manager

b. Under what conditions would you consider forming non-local partnerships? What would motivate / encourage you? Have you ever considered?

For firms with local AND non-local partnerships:

a. How do you differentiate between local and non-local partnerships? What are the criteria to choose?

b. What are the factors inhibiting to form non-local partnerships?

c. What are the factors leading to form non-local partnerships?

d. What are the challenges associated with non-local partnerships in general specific example?

What are your firm’s strengths to overcome those challenges? Weaknesses, if any?

e. At what point in the firm life cycle you shift from local to non-local? Is there a trajectory or a portfolio?

5. What is the role of trust in your partnerships? Considering your current partnership portfolio, how do you develop trust in local partnerships? Is this different for non-local partnerships?

Probes:

a. Are mutual goals and objectives achieved? How? [for each partnership]

b. In what time did you achieve? In which intervals you needed to revisit it? [for each partnership]
6. Let’s talk about how you formed / became engaged into this partnerships including search, selection and structuring. Is this process any different for locals, nationals and internationals?

Probes:

a. How did you start the search? What were the criteria to select that specific partner?

b. Why this partner? Was this firm referred to you via a network or any affiliated party?

c. Is the partner closer to your customers? Is that required to render this service? How did that situation affect your decision?

d. Do customers play a role in partner selection? If so, how?

e. Are there criteria that you use to reject partners?

f. For non-locals: Has this partner a local representative in your area? If so, what is the role of the representative? How did that situation influence your decision?

7. Please describe the day-to-day management (coordination and communication) of the partnership and relationship. Is this process any different for locals, nationals and internationals?

Opening question:

a. What are the challenges of this partnership in general? How do you overcome them?

Probes:

a. How do you coordinate the project with your partner? (any mechanisms, policies, procedures, any dedicated person or department) Describe typical day-to-day coordination and operations.

b. How do you organize the coordination within your firm related to this partnership? (any mechanisms, policies, procedures)

c. What are the ICTs utilized for coordination and in which context you prefer to use them?

d. How do you communicate with your partner?

e. What are the ICTs utilized for communication and in which context you prefer to use them?
f. How do you exchange knowledge (technical, task relevant) with your partner? What mechanisms do you have in place? What mechanisms does your partner have in place?

g. What are the ICTs utilized for knowledge transfer and in which context you prefer to use them?

h. Did you experience any conflicts with your partner? How did you solve them?

For international partnerships: Are there any additional country specific factors impacting coordination, communication, knowledge transfer and conflict management with the partner?

Probes:

Structures such as group meetings (teams, task forces, committees), integrators (boundary spanner roles using FF and phone meetings), direct contact between parties (FTF, or phone or written), planning (schedules, feedback mechanisms, special reports (one time), formal information systems, rules and regulations

8. Please evaluate your experience in this partnership. (Non-local partnerships only)

Probes:

a. How did the relationship evolve over time? How did your partner cooperate to overcome the challenges?

b. Would you partner up with the same firm? Why so?

9. Have you experienced any major problems in your partnerships? What happened? Can you please describe your experience?

10. Please compare local and non-local partnerships in terms of formation and management? Are there any differences? Are non-local partnerships more difficult to handle?

11. Is there any question you think I need to ask about partnerships especially non-local ones?

Thank you for your time and contribution.
Appendix G: Multiple Case Studies - Analysis Procedure

Analysis Procedure (Miles and Huberman, 1984; Stake, 1995; Patton 2002; Yin, 2009)

A. Pre-analysis


2. Codebook validity and reliability check:
   a. Identify segmentation based on an interviewer elicitation and participant’s response
   b. Code a sample interview with other researchers (independently)
   c. Compare codes for each segment
   d. Calculate agreement ratio as the number of agreements divided by the total of agreements and disagreements


4. Codebook setting in qualitative software: Create Tree Node structure in NVivo

5. Data repository: Develop a data repository including transcribed interviews, audio files, documents, links, observations, corporate webpage content in NVivo

6. Casebook:
   a. Create firm-level attribute structure for cases in NVivo
   b. Identify attributes for each case in NVivo

B. Analysis

7. Structural coding:
   a. Code each interview for each case in NVivo (Read at least two times, code the interview twice with time lag between coding rounds)
b. Review documents, observations and field notes

c. While coding, rearrange and / or collapse code groups, add new codes representing unique features of a case, eliminate redundant codes in NVivo node structure

d. In parallel to codebook changes, recode interviews at new or modified nodes, if necessary

e. Mark vignettes or excerpts taken as sample quotes in NVivo

f. Create a vignette repository grouped by firm and respondent in Excel

8. Codebook review:

a. Review modified codebook in preparation for pattern coding

b. Code the first sample interview with the same researchers (independently)

c. Compare codes for each segment

d. Calculate agreement ratio as the number of agreements divided by the total of agreements and disagreements

e. Finalize the codebook

9. Pattern coding :

a. Modify codebook node structure set in NVivo

b. Review code nodes and regroup according to the updated codebook

10. Content analysis:

a. Create a case repository with firm demographics, e.g. firm level information, based on respondents comments, corporate webpage, news, supplemental documents, LinkedIn, Facebook in Excel for context comparison

b. Develop an interview-level analysis template based on main code groups in Excel
c. Design a case report template to integrate the interviews at the firm level in Word (case sources, case demographics, situational context, findings grouped by main codes, frequently used words, case-specific analogy)

d. For each case:
   i. Analyze the content analysis of each coded interview, documents and memos
   ii. Interpret interview themes at respondent level, highlight key concepts derived
   iii. Run interview-level word frequency analysis (include only respondent segments, exclude generic words, identify key words for each respondent)

11. Pattern matching / within case analysis:
   a. Identify common themes, conflicts, inconsistencies, unique contributions across interviews
   b. Aggregate interview-level analysis to firm-level analysis
   c. Fill in the case report
   d. Present initial assertions based on case findings

12. Pattern matching / across case analysis
   a. Create a cross case template for each main code group in Excel
   b. Compare main code group across cases
   c. Identify common patterns, differences, outliers by comparing case contexts
   d. Utilize tables, displays, matrices and other visuals to present cross case analysis
# Appendix H: Multiple Case Studies - Codebook

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<th>Subcategory 1</th>
<th>Subcategory 2</th>
<th>Definition</th>
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<td>Age</td>
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<td>Location</td>
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<td>Core business</td>
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<td>Firm's core business and specialization</td>
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<td>Process and best practices</td>
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<td>Firm's processes and best practices for service provision</td>
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<td>Customer brings in partner</td>
<td>Does customer introduce / enforce his own service provider as partners? If so, what is the experience?</td>
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<td>Preferred partner size</td>
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</tr>
<tr>
<td>Partner’s location preference</td>
<td>Preferred partner location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnerships with sister company</td>
<td>Does the firm cooperate with sister companies? If so, what is the experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship duration</td>
<td>Duration of partnerships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcontracting</td>
<td>Firm's subcontracting practices. Does the firm prefer contracting to independent individuals instead of setting partnerships?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership formation strategy</td>
<td>How is the strategy? Ad-hoc, opportunistic? Naturalistic? Planned?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology service partnership</td>
<td>Partnerships with technology suppliers e.g. Microsoft, Adobe. What is the experience?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing Local Partners</th>
<th>If the firm has local partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>Duration of partnership</td>
</tr>
<tr>
<td>Partner affiliation to the firm</td>
<td>Is the partner affiliated to the firm? If so, how?</td>
</tr>
<tr>
<td>Partner size</td>
<td>Partner’s size (compared to the focal firm)</td>
</tr>
<tr>
<td>Partner's core business</td>
<td>Partner’s core business and specialization</td>
</tr>
<tr>
<td>Services subject to partnership</td>
<td>What services are provided via partnerships?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing Non-Local Partners</th>
<th>If the firm has non-local partners (outside of Chicago Metropolitan</th>
</tr>
</thead>
</table>


<table>
<thead>
<tr>
<th>Area</th>
<th>Business in US</th>
<th>Does the non-local partner have any business in US?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperation with client offshore</td>
<td>Does the firm need to cooperate with client's offshore vendors?</td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td>Duration of partnership</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Partner’s location</td>
<td></td>
</tr>
<tr>
<td>Partner size</td>
<td>Partner’s size</td>
<td></td>
</tr>
<tr>
<td>Service subject to partnership</td>
<td>What services are provided via partnerships?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partner Identification</th>
<th>Partner definition</th>
<th>How do you conceptualize the partner?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner excluding</td>
<td>Type of firms excluded as partners</td>
<td></td>
</tr>
<tr>
<td>Partner knowing</td>
<td>How does the firm “know” a partner? When does the firm come to a stage that it “knows” the partner?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>People_intensive creative</th>
<th>Type of IT services: people intensive, performed by people, requires human interaction, creative work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>People_intensive routine</td>
<td>Type of IT services: people intensive, performed by people, but routine and automatized</td>
</tr>
<tr>
<td></td>
<td>System_intensive routine</td>
<td>Type of IT services: system intensive, performed by systems, no human interaction,</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local Partnership</th>
<th>Advantages_local</th>
<th>Advantages of local partnerships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Challenges_local</td>
<td>Challenges and problems associated with local partnerships</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Local Partnership</th>
<th>Trigger</th>
<th>The action, event which triggered the firm to form a nonlocal partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advantages_nonlocal</td>
<td>Advantages of a non-local partnership</td>
</tr>
<tr>
<td></td>
<td>Challenges_nonlocal</td>
<td>Challenges and problems associated with non-local partnerships</td>
</tr>
<tr>
<td>Enablers_nonlocal</td>
<td>Factors enabling, facilitating or influencing formation of non-local partnerships</td>
<td></td>
</tr>
</tbody>
</table>

| **Trust** | Development | general | How does the firm develop trust in partnerships? |
| | nonlocal partnerships | How does the firm develop trust in non-local partnerships? |
| | difference | Difference between trust development in local partnerships and non-local partnerships |
| | In what | What does the firm trust in a partner? |
| | Indication | What are the indicators of having trust to a partner? |
| | Violation | What factors, issues, actions violate the trust in partnerships? |

| **Search and selection** | selection process | How does the firm search for a partner? How does the firm select a partner among candidates? |
| | difference between local and nonlocal | Is there any difference between selecting local and non-local partners? |
| | pool of candidates | Does the firm create a pool of potential partners? If so, how? |

| Selection criteria | general | Selection criteria valid for all type of partnerships |
| | hosting special | Selection criteria valid for hosting partners |
| | nonlocal special | Selection criteria valid for non-local / international partners |
| | product vendor special | Selection criteria valid for product provider partners |

| **Source** | Which sources does the firm refer to find partners? |

<p>| <strong>Operations</strong> | | |</p>
<table>
<thead>
<tr>
<th>Bonding outside project</th>
<th>general</th>
<th>How does the firm bond / integrate socially with partners outside of the project work (in general)?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>nonlocal partners</td>
<td>How does the firm bond / integrate socially with non-local partners outside of the project work?</td>
</tr>
<tr>
<td>Communication in the project</td>
<td></td>
<td>How to does the firm communicate with partners during the project?</td>
</tr>
<tr>
<td></td>
<td>communication meetings</td>
<td>Does firm have regular meetings? If so, what is the structure?</td>
</tr>
<tr>
<td></td>
<td>communication quality</td>
<td>What the firm does to control and increase the quality of communication?</td>
</tr>
<tr>
<td></td>
<td>communication strategy</td>
<td>What is the communication strategy with partners?</td>
</tr>
<tr>
<td></td>
<td>communication style</td>
<td>Is there any specific communication style, tone, language applied?</td>
</tr>
<tr>
<td></td>
<td>difference between local and nonlocal</td>
<td>Is there any difference in communication with local and non-local partners?</td>
</tr>
<tr>
<td>Coordination / Project Management</td>
<td></td>
<td>How to does the firm coordinate with partners during the project?</td>
</tr>
<tr>
<td></td>
<td>internal coordination</td>
<td>How does the firm coordinate the service provision and project internally?</td>
</tr>
<tr>
<td></td>
<td>coord with hosting local or nonlocal</td>
<td>How does the firm coordinate with hosting providers?</td>
</tr>
<tr>
<td></td>
<td>coord with local user design</td>
<td>How does the firm coordinate with local user design firms?</td>
</tr>
<tr>
<td></td>
<td>coord with product providers</td>
<td>How does the firm coordinate with product providers?</td>
</tr>
<tr>
<td></td>
<td>coord with nonlocal partners</td>
<td>How does the firm coordinate with non-local partners?</td>
</tr>
<tr>
<td></td>
<td>nonlocal software development</td>
<td>How does the firm coordinate with non-local software development firms?</td>
</tr>
<tr>
<td></td>
<td>coord with offshore partners</td>
<td>How does the firm coordinate with offshore partners?</td>
</tr>
<tr>
<td>Expectation management</td>
<td>offshore sw dev</td>
<td>How does the firm manage the expectations of international / offshore partners?</td>
</tr>
<tr>
<td>Governance</td>
<td>How does the firm govern the relationships with partners? Are there any contracts? Is there any difference between local and non-local partnerships?</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Partner evaluation</td>
<td>How does the firm evaluate partners? Is there any difference between local and non-local partnerships?</td>
<td></td>
</tr>
<tr>
<td>Planning and sales general</td>
<td>Does the firm include the partner into planning, RFP and sales? If so, how?</td>
<td></td>
</tr>
<tr>
<td>Partnership learning</td>
<td>learning_nonlocal</td>
<td>What are the lessons learned in non-local partnerships? How does the firm learn throughout the nonlocal partnership experience?</td>
</tr>
</tbody>
</table>
Appendix I: IRB Exemption Letters

University of Illinois
At Chicago

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612

Exemption Granted

October 14, 2009

Melike Nur Findikoglu
Information and Decision Sciences
2402 University Hall
601 S Morgan Street, M/C 294
Chicago, IL 60612
Phone: (312) 532-2817 / Fax: (312) 413-0385

RE: Research Protocol # 2009-0793
“Service Provision Partnerships Between IT Firms and Factors Impacting the Choice of Partner’s Location”

Dear Melike Nur Findikoglu:

This Exemption Determination is limited to the Pilot Phase only. Please be reminded of the need to submit amendments for subsequent phases, which cannot be conducted until written approval of the amendment(s) has been granted.

As a reminder, Dr. Mary Beth Watson-Manheim’s Investigator Training will expire on April 29, 2010 unless she completes Investigator Continuing Education: http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/continuing.shtml

Your Claim of Exemption was reviewed on October 14, 2009 and it was determined that your research meets the criteria for exemption. You may now begin your research.

Exemption Period: October 14, 2009 – October 13, 2012

Your research may be conducted with adult subjects only.

The specific exemption category under 45 CFR 46.101(b) is:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Phone: 312-996-1711 http://www.uic.edu/depts/ovcr/oprs/ Fax: 312-413-2929
Please note the Review History of this submission:

<table>
<thead>
<tr>
<th>Receipt Date</th>
<th>Submission Type</th>
<th>Review Process</th>
<th>Review Date</th>
<th>Review Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/08/2009</td>
<td>Initial Review</td>
<td>Exempt</td>
<td>09/20/2009</td>
<td>Modifications Required</td>
</tr>
<tr>
<td>10/02/2009</td>
<td>Response To Modifications</td>
<td>Exempt</td>
<td>10/14/2009</td>
<td>Approved</td>
</tr>
</tbody>
</table>

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:

1. **Amendments** You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.

2. **Record Keeping** You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.

3. **Final Report** When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).

4. **Information for Human Subjects** UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:
   a. The researchers affiliation; UIC, JBVMAC or other institutions,
   b. The purpose of the research,
   c. The extent of the subject’s involvement and an explanation of the procedures to be followed,
   d. Whether the information being collected will be used for any purposes other than the proposed research,
   e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
   f. Description of any reasonable foreseeable risks,
   g. Description of anticipated benefit,
   h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
   i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
   j. A statement that the UIC IRB/OPRS or JBVMAC Patient Advocate Office is available if there are questions about subject’s rights, which includes the appropriate phone numbers.
Please be sure to:

→ Use your research protocol number (2009-0793) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact the OPRS office at (312) 996-1711 or me at (312) 355-2908. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, CIP
Assistant Director, IRB # 2
Office for the Protection of Research Subjects

Enclosure(s): None

cc: Arkalgud Ramaprasad, Information and Decision Sciences, M/C 294
    Mary Beth Watson Manheim, Information and Decision Sciences, M/C 294
Exemption Determination
Amendment to Research Protocol – Exempt Review
UIC Amendment # 1

July 14, 2010

Melike Nur Findikoglu
Information and Decision Sciences
2402 University Hall
601 S Morgan Street, M/C 294
Chicago, IL 60612
Phone: (312) 532-2817 / Fax: (312) 413-0385

RE: Protocol # 2009-0793
“Service Provision Partnerships Between IT Firms and Factors Impacting the Choice of Partner’s Location”

Dear Melike Nur Findikoglu:

The OPRS staff/members of Institutional Review Board (IRB) #2 have reviewed this amendment to your research, and have determined that your research protocol continues to meet the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b)].

The specific exemption category under 45 CFR 46.101(b) is:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation.

You may now implement the amendment in your research.

Please note the following information about your approved amendment:

Exemption Period: July 12, 2010 – July 11, 2013
Amendment Approval Date: July 12, 2010
Amendment:
Summary: UIC Amendment #1 submitted to OPRS on June 18, 2010 is an investigator-
initiated amendment. The amendment is the submission of the next phase of the research, the objective of which is to further elaborate the research framework and explore relationships between the constructs in the model. Six case studies will be conducted with Chicago software development firms. At each firm 2-4 managers or officers who are involved in partnership decision making and/or management process will be interviewed.

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:

1. **Amendments** You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.

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   a. The researchers affiliation; UIC, JB VAMC or other institutions,
   b. The purpose of the research,
   c. The extent of the subject’s involvement and an explanation of the procedures to be followed,
   d. Whether the information being collected will be used for any purposes other than the proposed research,
   e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
   f. Description of any reasonable foreseeable risks,
   g. Description of anticipated benefit,
   h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
   i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
   j. A statement that the UIC IRB/OPRS or JB VAMC Patient Advocate Office is available if there are questions about subject’s rights, which includes the appropriate phone
Please be sure to:

→ Use your research protocol number (2009-0793) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

[Signature]

Charles W. Hochne, CII
Assistant Director, IRB #2
Office for the Protection of Research Subjects

Enclosure: None

cc: Arkalgud Ramaprasad, Information and Decision Sciences, M/C 294
    Mary Beth Watson Manheim, Information and Decision Sciences, M/C 294
VITA

MELIKE N. FINDIKOGLU

EDUCATION
B.S., Industrial Engineering, Istanbul Technical University, Istanbul, Turkey, 1986
M.S., Engineering Management, Marmara University, Istanbul, Turkey, 2003
Ph.D., Management Information Systems, University of Illinois at Chicago, Illinois, 2012

EXPERIENCE
TEACHING
University of Illinois at Chicago, USA  Fall, 2006 - Fall 2011
Research Assistant, Center for Research in Information Management (CRIM)
Teaching Assistant, “Introduction to Management Information Systems” lab sessions
Teaching Assistant, “Strategic Management”

Marmara University, Istanbul, Turkey  2000-2001

PROFESSIONAL
Daimler Financial Services, Istanbul, Turkey  2001-2006
Manager, Business Development & IT
  • Established IT service model and IT department, and managed IT Operations.
  • Developed and implemented IT governance strategies in accordance with global policies.
  • Designed and implemented IT architecture and systems (B2B, B2D, contract management, credit management, CRM systems for leasing and retail finance business).
  • Developed business and operational models for leasing and insurance businesses.

Management Consultant
Specialization area: Financial services industry, Enterprise Transformation and Technological IT practices

- Participated to branch network transformation project for a retail bank. Using life-stage management approach, developed new delivery and operational capabilities for the bank.
- Worked in JV assessment project in Germany. Assessed capabilities in accounting and finance functions for JV in automotive industry, delivered recommendations and a work plan for the transition period.

Garanti Leasing, Istanbul, Turkey 1994-1999
Senior Manager, Corporate Finance, Financial Control, Strategic Planning, Projects

- Established firm’s financial control structure, processes, organization and reporting structure.
- Managed funding operations and relationships with national and international financial institutions (IFC, export credit agencies, banks and suppliers).
- Managed special projects: Securitization of lease receivables ($120 millions) with IFC, establishment of rep. offices or subsidiaries in foreign countries, X-border leasing activities.
- Established Joint Venture leasing company in Azerbaijan with IFC, and a local bank. Developed and implemented the business model and the organizational structure.
- Worked as a team member in legacy system development project for financial leasing.

Finans Leasing, Istanbul, Turkey 1992-1994
Treasurer and Assistant Manager, Budget and Finance

Financial Analyst and Treasurer

Mercedes Benz, Istanbul, Turkey 1987-1988
Personnel Planning Analyst
SERVICE

- Reviewer, AOM
- Reviewer, Business Process Management Journal
- Reviewer, American Conference on Information Systems (AMCIS), Conference, 2010
- Reviewer, Academy of Management, Conference, 2009/2010
- Reviewer, International Project Management Association, Level D Exam, 2008
- Reviewer, International Business Informatics Challenge, Conference, 2007

PUBLICATIONS


AWARDS AND HONORS
• University of Illinois at Chicago, Chicago Consular Corps Scholarship for 2010-2011
• Selected to participate in AMCIS Doctoral Consortium, “IT SMEs and Non-local Service Partnerships: An Assessment of Facilitators”, August 2010
• Selected to participate in MCIS Doctoral Consortium, “Factors Influencing Small- and Medium-sized IT Firms’ Engagements in Non-local Service Partnerships”, September 2010
• Selected as Doctoral Symposium winner at ISOneWorld Conference, “Collaboration Strategies by IT Vendor Companies in Chicago IT Ecosystem”, 2009
• Entered Istanbul Technical University with first rank / 70th in National University Entrance Exam in Turkey and graduated Cum Laude