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Strategic Alignment in SMEs: Strengthening Theoretical Foundations

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Abstract:
Small and medium-sized enterprises (SMEs) are a vital part of the global economy in that they compose the vast majority of all businesses worldwide. In spite of these firms’ importance, they remain understudied in strategic alignment research. In this paper, we consolidate and extend the IS literature on strategic alignment in SMEs. We develop a set of theoretical propositions that outline the ways in which SMEs’ unique characteristics affect their ability to achieve and sustain alignment between their IS/IT strategy and their overall business strategy. In some respects, SMEs can achieve and sustain alignment as larger firms do, while, in other respects, they differ noticeably. We ground each of our propositions in the dynamic capabilities framework to strengthen the theoretical foundations of strategic alignment research, particularly in SMEs. We discuss the implications of our propositions and note theoretical issues emerging from the study of strategic alignment in the SME context.

Keywords: Strategic Alignment, Strategic IS Planning, Strategic IS Management, SME, Entrepreneurship, Dynamic Capabilities, Theory Development, Small Business.

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1 Introduction

For several decades, executives and managers have been keenly aware of the need to align their business strategy with their IT strategy (Kappelman, McLean, Johnson, & Gerhart, 2014; Niederman, Brancheau, & Wetherbe, 1991). These leaders prioritize the alignment of strategies because it helps their firms deploy IT resources to achieve organizational objectives (Brown & Magill, 1994; Camillus & Lederer, 1985; Keen, 1991; Sabherwal, Hirschheim, & Goles, 2001). Furthermore, aligning strategies provides an avenue through which IT leaders can open up opportunities for an organization (Agarwal & Sambamurthy, 2002; Benbya & McKelvey, 2006). And ultimately, leaders prioritize strategic alignment because their organizations realize a host of performance benefits when their business and IT strategies are highly aligned (Chan & Reich, 2007; Chan, Sabherwal, & Thatcher, 2006b; Reich & Benbasat, 1996; Sabherwal & Chan, 2001).

In this paper, we examine strategic alignment in the context of small and medium-sized enterprises (SMEs). We focus on SMEs for several reasons. First, there is a marked paucity of research on strategic alignment in SMEs (Cragg, King, & Hussin, 2002), which is surprising given that 99 percent of all U.S. firms are SMEs and 49 percent of private-sector jobs are in SMEs (Small Business Administration, 2013). The situation is similar in the European Union (EU) where SMEs make up 99 percent of the companies, provide 67 percent of all jobs, and contributed €3.5 trillion to EU GDP in 2014 (European Commission, 2015). Second, SMEs represent a distinct grouping of firms where resource constraints have a noticeable influence on alignment factors and outcomes (Cragg, Caldeira, & Ward, 2011; Devos, Van Landeghem, & Deschoolmeester, 2012b; Gerow 2011; Raymond, 1985; Raymond & Bergeron, 2008; Raymond, Uwizeyemungu, Bergeron, & Gauvin, 2012). Third, advances in IT are leading to increasing levels of adoption and use of IT in SMEs and are pushing technology further and further into SME processes and operations. Because many competitors and suppliers now use IT in their operations, SME managers (and researchers) need to have a better understanding of how the alignment of business and IT strategies impacts firms. Finally, current IT now enables—and, in many cases, even forces—SMEs to compete worldwide with organizations of all sizes. For these reasons, researchers have encouraged additional research on strategic alignment in SMEs (Raymond & Bergeron, 2008). As such, we suggest that a comprehensive analysis of the unique characteristics of SMEs and the influence of those characteristics on strategic alignment will provide significant value to both researchers and practitioners.

This paper proceeds as follows: in Section 2, we define strategic alignment and show that relatively little research has been carried out using the SME context to study strategic alignment. We also identify the unique characteristics of SMEs. In Section 3, present a series of eight propositions that identify how these unique characteristics may influence SMEs’ ability to build a dynamic organizational capability in strategic alignment. In Section 4, we suggest several research directions for studying alignment in SMEs. In Section 5, we conclude the paper.

2 Literature Review

2.1 Strategic Alignment

Research has conceptualized strategic alignment in a variety of ways. Using the strategic alignment model (Henderson & Venkatraman, 1993), one can identify six different types of alignment: 1) the integration of business and IT strategies (intellectual alignment), 2) the integration of business and IT infrastructures and processes (operational alignment), 3) the integration of IT strategy with IT infrastructure and processes (IT alignment), 4) the integration of business strategy with organizational infrastructure and processes (business alignment), 5) the integration of business strategy with IT infrastructure and processes (a form of cross-domain alignment), and 6) the integration of IT strategy with organizational infrastructure and process (also a form of cross-domain alignment) (Gerow, Thatcher, & Grover, 2015; Gerow, Thatcher, Grover, & Roth, 2014).

In this paper, we focus specifically on intellectual alignment: that is, “the degree to which the information technology mission, objectives, and plans support and are supported by the business mission, objectives, and plans” (Reich & Benbasat, 2000, p. 82), and one can find similar conceptualizations in other work (Chan & Reich, 2007; Chan et al., 2006b; Kearns & Lederer, 2003; Reich & Benbasat, 1996; Tan & Gallupe, 2006). We focus exclusively on intellectual alignment because of strategy’s importance in shaping an organization’s overall purpose, mission, processes, and structure. Throughout this paper, we use the term “strategic alignment” to refer to intellectual alignment—a practice followed by other IS
researchers (Baker, Jones, Cao, & Song, 2011; Sabherwal et al., 2001) who use the term “strategic alignment” to emphasize their examination of the alignment of strategies rather than the alignment of infrastructures or processes as in the other five types of alignment. We also use the term “alignment of strategies” to refer to intellectual alignment. When we compare or contrast intellectual alignment with one of the other types, we explicitly state which other type we refer to (operational, IT, business, or cross-domain alignment).

2.2 Strategic Alignment in SMEs

Following from the definition above, we set the scope of our literature review as research on strategic alignment topics in the SME domain. We proceeded through a structured three-step approach (Webster & Watson, 2002). We began with a keyword search in ABI Proquest and Google Scholar using the search terms “SME”, “alignment”, “strategic alignment”, “fit”, and variations of these terms. We considered not only journals in the AIS Senior Scholars’ basket of eight but also journals outside this list, dissertations, and conference papers. We considered both non-IS and IS outlets. Following this initial phase, we reviewed reference lists of key papers for additional prior work. We also used Google Scholar’s “cited by” function to locate papers that cite the research that we had identified in the earlier steps. As an additional final check, we also consulted with two researchers who are among the most active in studying strategic alignment in SMEs and among the most-cited researchers on this topic. We requested their opinions on the scope of our search and for potentially missing papers. After proceeding through these steps, we began to identify themes in the identified papers.

At least three themes emerge in the limited set of research papers that examine strategic alignment in SMEs: 1) the identification of factors that promote or inhibit strategic alignment, 2) the relationship between strategic alignment and SME performance, and 3) methodological issues. With regard to factors that promote or inhibit alignment, researchers have focused on the level of firms’ IT sophistication (Chao, 2009; Hussin, King, & Cragg, 2002; Ismail & King, 2007; Mohamad & Ismail, 2010); the availability of external IT expertise (Hussin et al., 2002; Ismail & King, 2007); the importance of mature strategic planning processes (Chao, 2009; Gutierrez, Orozco, & Serrano, 2009); senior managers’ knowledge of or commitment to IT (Chao & Chandra, 2012; Hussin et al., 2002; Ismail & King, 2007); characteristics of the environmental context (Chao, 2009; Raymond & Bergeron, 2008); employees’ trust in, commitment to, and awareness of business and IT strategies (Chong, Chan, Ooi, & Darmawan, 2011); and organizational structure, size, and age (Garg & Goyal, 2012; Ismail & King, 2007; Jouirou & Kalika, 2004; Raymond & Bergeron, 2008).

With regard to the relationship between alignment and performance, evidence for improved performance exists when researchers have modeled alignment in terms of matching, moderation, mediation, and gestalts (Bergeron, Raymond, & Rivard, 2001, 2004; Cragg et al., 2002; Garg & Goyal, 2012; Ismail & King, 2006; Jouirou & Kalika, 2004; Raymond, Paré, & Bergeron, 1995). An SME may pursue alignment through different paths depending on its market position, and each path may lead to improved performance (Levy, Powell, & Yetton, 2011). Alignment between a firm’s e-business capabilities and its business strategy improves performance as well (Raymond & Bergeron, 2008). Furthermore, improved performance results from the ability to use advanced systems to pursue new business opportunities (Raymond & Croteau, 2006).

With regard to methodological issues, researchers have discussed instrument development, identified SME-specific ways to assess alignment at the strategic, tactical, and operational levels (Gutierrez & Serrano, 2008), and ensured that measures are properly adapted from large-firm alignment research for the SME context (Hale & Cragg, 1996). Others have focused on the differing assessments of SME alignment that may be reached by using bivariate perspectives on alignment such as moderation, mediation, and matching or by using systems perspectives such as covariation, profile deviation, and gestalts (Bergeron et al., 2001). Recommendations include the need for conceptual clarity and
methodological rigor in quantitative studies of alignment. Others specifically note the advantages of the
moderation over matching and call for additional research to explore the discrepancies that can arise
when one compares the results from these two perspectives (Cragg et al., 2002). Finally, researchers
have also developed a practice-oriented interview method that enables action researchers or consultancy
groups to gather information from an SME’s stakeholders and decision makers in a structured process to
increase a firm’s level of intellectual alignment and competitiveness (Escofet, Rodríguez-Fortíz, Garrido, &
Chung, 2010). Each of these methodologically oriented inquiries advance the study of alignment by
highlighting areas for attention in data collection and analysis.

We observe that research on strategic alignment in SMEs investigates some of the same topics as
research conducted with larger firms. The themes in both bodies of research include the factors that
promote or inhibit alignment, the link from alignment to improved business performance, processes by
which firms achieve alignment, and methodological tools of inquiry (Chan & Reich, 2007; Gerow et al.,
2014).

Nevertheless, SMEs clearly warrant investigation on their own apart from research that examines strategic
alignment in larger firms. Research indicates that firm size significantly influences the relationship
between alignment and performance (Gerow et al., 2014). Other research similarly indicates that resource
constraints affect alignment factors and outcomes in SMEs (Cragg et al., 2011; Devos, Van Landeghem,
& Deschoolmeester, 2012a; Raymond, 1985; Raymond & Bergeron, 2008; Raymond et al., 2012). These
findings dovetail with those in literature that address a differentiating factor between SMEs and large
firms, a factor referred to as “the liability of smallness”. Research consistently describes SMEs as
resource-constrained and as facing challenges that differ materially from those of larger firms (Freeman,
Carroll, & Hannan, 1983).

Despite SMEs’ uniqueness and the noted effect of both firm size and resource availability on alignment,
we could not find in prior literature a systematic study of strategic alignment organized around the unique
characteristics of SMEs. SMEs have been richly discussed in the field of strategic management and its
subdisciplines of new business and entrepreneurship. Research has clearly articulated SMEs’
characteristics, several of which may have peculiar effects on the ability of such firms to achieve strategic
alignment. We now turn to a discussion of the characteristics of SMEs, a point from which we build our
theoretical propositions.

2.3 Characteristics of Small and Medium-sized Enterprises (SMEs)

The European Commission (2003) defines SMEs as “enterprises which employ fewer than 250 persons
and which have an annual turnover not exceeding 50 million euros, and/or an annual balance sheet total
not exceeding 43 million euro”. In the United States, the defining criteria for SMEs vary depending on
industry, ownership structure, revenue, and number of employees. Generally, however, the number of
employees must be less than 500 (Small Business Administration, 2013).

Early scholarly research on SMEs theorized that the liability of smallness significantly influences small
business development (Aldrich & Auster, 1986) and that this liability manifested itself in certain categories
of factors. In the management literature, these categories include: 1) size and resource characteristics
(Cragg et al., 2011, 2002), 2) strategic planning and time horizons (Bili & Raymond, 1993), and 3)
leadership/ownership characteristics (Wijenwardena & Cooray, 1996; Yusuf, 1995). These categories
have also appeared in other small business management research regarding alliances (Street &
Cameron, 2007) and barriers to SME success (Chan, Bhargava, & Street, 2006a).

First, with respect to size and resource characteristics, both IS and management studies describe SMEs
as having access to fewer resources and assets than large organizations (Street & Cameron, 2007;
Alvarez & Barney, 2001). A survey of SME definitions going as far back as the 1930s notes that SMEs are
consistently defined in terms of number of employees and annual sales revenue (Osteryoung & Newman,
1993). Furthermore, SMEs commonly do not have an extensive IT infrastructure (Ferneley & Bell, 2006)
and may lack other resources that they need to achieve stability and efficiency (Orser, Hogarth-Scott, &
Riding, 2000). A typical finding in small business research is that resource constraints (whether human,
asset, or financial capital) limit greater performance. Having fewer employees can make it more difficult
to compete with larger firms (Alvarez and Barney 2001) and can limit the rate of a firm’s growth (Orser et al.,
2000). Asset limitations can force small businesses to focus on the most immediate issues rather than
taking a wider or longer view on business growth (Chan et al., 2006a). Resource constraints also have the
potential to limit development options (Alvarez & Barney, 2001). Collectively, the SME literature knows
these size and resource limitations as the “liabilities of smallness” (Aldrich & Auster, 1986; Freeman et al., 1983), and they represent a defining characteristic of SMEs.

Research has also shown specific resources such as IT infrastructure to influence SME performance. Research recognizes IT use as an SME growth factor, but cost often prevents SMEs from acquiring IT infrastructure (Matthews, 2007). IT readiness of the small business is an important precondition for implementing new systems (Spinelli, Dyerson, & Harindranath, 2013), and research has shown an IT infrastructure that enables other types of business strategies to have a positive effect on performance (Polo Peña, Frías Jamilena, & Rodriguez Molina, 2011). The type and amount of installed IT, or legacy systems, also have an influence on how small businesses adapt (Wynn, Turner, & Lau, 2013) where the ability to change direction or strengthen a capability can be limited by an SME’s ability to integrate existing and new infrastructure (Woznica & Healy, 2009). In sum, research has shown size and resources to be key defining characteristics of SMEs.

Second, research has also identified strategic planning and planning time horizons to be important characteristics of SMEs (Berry, 1998). While strategic planning is as important in small businesses as it is in larger enterprises (Ghosh & Kwan, 1996; Wijenwardena & Cooray, 1996; Yusuf, 1995), SMEs nevertheless tend to have shorter time planning horizons. Nearly 75 percent of SMEs plan just one to three years in advance, while 20 percent plan ahead just one year or less (Stonehouse & Pemberton, 2002). Resource constraints are one of the reasons why SMEs must focus on the most immediate challenges rather than taking a wider or longer view on business growth (Chan et al., 2006a). The implications of these shorter time horizons for strategic planning are significant: researchers have noted that the shorter the time horizon for strategic planning, the less successful the SME is (Kraus, Harms, & Schwarz, 2006).

Research has also characterized and classified SMEs using growth stage models that describe small businesses as being relatively informal in terms of their strategic planning (Rao, Metts, & Monge, 2003; Scott & Bruce, 1987). Research has long reported the planning process, and SME growth in general, to depend on time, where performance increases over time in a stage-wise maturity process (Berry, 1998; Greiner, 1972; Scott & Bruce, 1987). How strategies are developed, how well they are communicated, and the maturity of the strategy development process are each important factors in predicting SME performance.

Third, with regard to leadership and ownership characteristics, research has noted that factors such as leaders’ level of knowledge (Cragg et al., 2011) and experience (Deakins & Free, 1998) are associated with SMEs’ successful business performance (Wijenwardena & Cooray, 1996; Yusuf, 1995). Not surprisingly, research has recognized the owner or founder of a small business as being very influential (Iacovou, Benbasat, & Dexter, 1995). For example, research has shown that an SME owner’s taking an opportunity-seeking (entrepreneurial) approach to business has a positive influence on the SME’s performance (Deakins & Free, 1998; Man, Lau, & Chan, 2002). This situation is particularly true when an entrepreneurial approach coexists with particular strategic orientations (Lechner & Gudmundsson, 2014). In sum, the knowledge and experience of the leader/owner are important predictors of SME success.

To review, research has studied three categories of SME characteristics extensively: size and resources, strategic planning and planning time horizons, and leadership and ownership. We summarize this research in Table 1.

### 3 Theoretical Development

In this section, we present eight propositions built on the characteristics of SMEs that we identify above. We ground our propositions in the dynamic capabilities framework (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997), and they describe how the aforementioned characteristics of SMEs may systematically affect strategic alignment in those firms. Dynamic capabilities involve creating, combining, and reconfiguring human, capital, and physical resources in response to changing environments (Teece et al., 1997). The dynamic capability framework fits well with our focus on intellectual alignment because it provides a framework to consider how resources, planning, and people all influence alignment (Weill, Subramani, & Broadbent, 2002).
Table 1. Characteristics of SMEs

<table>
<thead>
<tr>
<th>Category of SME characteristics</th>
<th>Characteristic</th>
<th>Supporting literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size and resources</td>
<td>Number of employees</td>
<td>Alvarez &amp; Barney (2001), Orser et al. (2000), Chan et al. (2006a)</td>
</tr>
<tr>
<td></td>
<td>IT resources</td>
<td>Matthews (2007), Spinelli et al. (2013), Polo Peña et al. (2011)</td>
</tr>
<tr>
<td></td>
<td>Stages of growth/maturity</td>
<td>Scott &amp; Bruce (1987), Berry (1998), Greiner (1972)</td>
</tr>
<tr>
<td>Leadership/owner</td>
<td>Knowledge and experience of CEO/owner</td>
<td>Iacovou et al. (1995), Reich &amp; Benbasat (2000)</td>
</tr>
</tbody>
</table>

3.1 The Effects of SME Size and Resources on Strategic Alignment

3.1.1 Number of Employees

As the number of members in an organization increases, it becomes more challenging for leaders to clearly communicate their intentions and desires to them. Clear communication and effective coordination are important because intellectual alignment requires the various leaders of the organization to communicate with each other and to employees about the organization's business and IT strategies (Chan 2002). Furthermore, alignment requires that business and IT leaders coordinate strategic planning activities and the implementation of strategic plans (Chan et al., 2006b; Reich & Benbasat, 2000). Indeed, researchers have noted that CEO participation in IT planning and CIO participation in business planning promotes strategic alignment (Kearns & Lederer, 2003). Shared domain knowledge and shared strategic business plans between IT leaders and non-IT leaders/owners improves strategic alignment as well (Chan et al., 2006b; Reich & Benbasat, 2000). Thus, communication and coordination of strategic plans between IT and non-IT leaders is clearly important.

Researchers who have studied strategy formulation highlight the importance of communication and coordination. For intended strategies to be realized, all members of the organization must share them as their own or they must accept them completely (Mintzberg & Waters, 1985). However, such things are difficult to achieve. As more employees join an organization, they add more individual perspectives, and, thus, the challenge of gaining complete buy-in or complete assent becomes greater. It also becomes more difficult to clearly and thoroughly communicate strategic plans with all employees in a way that enables them to give their assent to the strategy and to willingly work to implement it.

Collective managerial skills such as strategy formulation are embedded in the organization’s processes, procedures, systems, informal networks, and even personal relationships (Eisenhardt & Martin, 2000; Teece et al., 1997)—a key tenet of the dynamic capabilities framework (DCF). Individuals might undertake strategic actions such as sensing and seizing market and technological opportunities, but, ideally, these tasks should be orchestrated across networks of employees (Teece, 2007). Efficient and well-coordinated employee networks promote the development of dynamic capabilities while large, unwieldy, and bureaucratic ones limit them (Teece, 2007). Thus, from a variety of perspectives, one can see that collaboration and coordination across individuals and groups are foundational to the development of dynamic capabilities.

In smaller organizations, it is a simpler matter for IT personnel and non-IT business leaders/owners to coordinate their strategic planning and to communicate their strategic objectives to one another. Doing so is a necessary prerequisite for developing congruent, aligned strategic plans. After formulating these...
plans, it is easier to communicate them to employees, and leaders have relatively less work to do to “sell” the strategic plan to employees. Finally, smaller organizations have fewer disparate perspectives and goals residing in their employees than do larger organizations. The number of employees affects the “degree of strategic alignment” that is typically assessed in IS research using traditional variance models to identify how closely a business strategy matches its corresponding, theoretically ideal IT strategy (Baker et al., 2011; Sabherwal & Chan, 2001; Venkatraman, 1989).

Some might argue that theories of social influence suggest that larger numbers of employees make alignment easier because large coalitions facilitate the construction and implementation of strategic plans through political means. Such a counter-argument, however, rests on the assumption that coalitions already exist or can easily be built and ignores the coordination and unification challenges that are evident in coalition building. Therefore, our initial logic is still sound: communication and coordination are more difficult with larger numbers of employees.

Given the weight of the various arguments presented in the foregoing paragraphs, we propose:

**Proposition 1:** SMEs’ degree of strategic alignment is negatively related to the number of employees at the firm (i.e., the smaller the number of employees, the stronger the strategic alignment; the greater the number of employees, the weaker the strategic alignment).

### 3.1.2 Resource Constraints

The number of employees is just one measure of a firm’s size; another important measure is the financial resources available to a firm. Indeed, the EU, the US, and others define SMEs in terms of their financial resources (European Commission, 2003; Small Business Administration, 2013). Firms need financial resources in order to execute the IT-enabled aspects of their strategies. For instance, if a firm chooses to emphasize operational excellence, such a focus might necessitate manufacturing-related technologies, inter-organizational IS, or other supply chain-related technologies. Or, if an SME prioritizes a specific strategic action, such as expanding its business to multiple locations, such a focus will likely necessitate new network hardware and data sharing across multiple sites. Not surprisingly, a lack of financial resources is one of the key barriers for firms that would like to make new IT investments (Oxford Economics, 2013). If a firm is resource constrained, leaders will need to edit or censor their desired strategic statements in light of what will be feasible given the firm’s resource position. In contrast, well-capitalized SMEs with munificent investors will have fewer constraints on the strategies that they can formulate.

Firms need to make “costly investments” to create and sustain the pattern of activity that is necessary for dynamic capability development (Winter, 2003). Elsewhere, research has noted that dynamic capabilities are, in part, built on the resource position of the firm (Teece et al., 1997). IS researchers have explained that resources and the dynamic capabilities that can be built on them enable a firm to adjust its IT strategy and maintain and sustain competitive advantage (Wade & Hulland, 2004). The end result in resource-constrained firms, a group into which many SMEs fall, is an intended business strategy and an intended IT strategy that cannot be realized, and an intended state of alignment that, therefore, cannot be achieved. In contrast, when a firm is well capitalized and has slack resources, it can make investments to bring strategy to fruition. Generous resource endowments represent an ideal matrix for the development of dynamic capabilities such as achieving a high degree of strategic alignment.

Somewhat surprisingly, studies of strategic alignment do not often mention a firm’s resource position (Chan & Reich, 2007). In one exception, however, Street, Gallupe, and Reich (2010) note that resource limitations have been shown to inhibit the achievement of strategic goals and strategic alignment in technology-based startups. This factor has received relatively little attention perhaps because researchers assume that all firms have equal access to needed resources. Thus, a deeper investigation of the link between financial resources and strategic alignment would contribute to alignment research. The SME context provides a setting where well-capitalized and poorly capitalized firms should be readily identifiable. Thus, we propose:

**Proposition 2:** SMEs’ degree of strategic alignment is positively related to their resource endowment (i.e., a more limited resource endowment results in a weaker strategic
Proposition 2 addresses the role of general-purpose resources, but we must also consider more specific resources such as IT resources.

### 3.1.3 IT Resources

SMEs’ small size typically has a direct impact on the types and amount of IT resources they have (Chao, 2009). These resources include hardware, software, and human resources. Many SMEs are frugal users of IT (Ahuja & Chan, 2014; Tan, Ky, & Tan, 2016) and avail themselves of only the essential types and amounts that they need for their operations. Due to the nature of their industries, some SMEs could have quite sophisticated IT but still take a “lean” approach by using just enough IT to survive and compete.

Larger organizations, on the other hand, have substantially more technology resources and IT-related human resources to support their more complex operations (Luftman & Brier, 1999), which also means that larger firms have more institutional inertia and, thus, that aligning business strategy with IT strategy is a more complex task in larger firms. When a strategy changes, it can take a considerable amount of time to acquire or redeploy IT resources to execute the new strategy. Similarly, legacy systems can limit an organization’s strategic options and constrain it to maintain a particular strategic position for longer than is optimal. Researchers have highlighted that dynamic capabilities rest on the paths along which an organization evolves (Teece et al., 1997). Existing resource configurations such as legacy IT systems may limit strategic alignment and the maintenance of that alignment as the competitive environment changes over time (Street et al., 2012). A large installed base of IT resources can lead to ossification and limit dynamism, agility, and reconfigurability (van Oosterhout, Waarts, & van Hillegersberg, 2006). Thus, a large installed technology base makes it difficult to achieve and sustain alignment and also to re-align after strategic changes.

In contrast, SMEs typically have low institutional inertia due to their relatively small size. They need to be able to act quickly to respond to changes in their industry. They typically need to have high agility and flexibility, particularly in their use of IT. Due to this need for agility, they can launch new initiatives quickly. Ultimately, aligning business and IT strategy in SMEs, with their smaller installed technology base, should be easier and should result in higher levels of strategic alignment.

**Proposition 3:** SMEs’ degree of strategic alignment is negatively related to their IT resource position (i.e., a smaller installed base of IT-related resources results in stronger strategic alignment, while a larger installed base of IT-related resources results in weaker strategic alignment).

When viewing Propositions 2 and 3 in tandem, one can observe an underappreciated nuance of SME resource endowment. Every SME has some amount of general-purpose resources (either fewer or greater) and some amount of installed IT resources (either lower or higher amounts). The ideal resource endowment to promote strategic alignment (by creating the greatest number of strategic options) would be greater general-purpose resources and lower levels of installed IT resources, including legacy IT infrastructure. In such a scenario, options are greater, and fewer technological dependencies hold the organization back from making needed strategic changes. The opposite would be true as well: an SME with fewer general-purpose resources but higher levels of installed IT would be path constrained and have a difficult time with the strategic reconfigurability that it needs to achieve a high degree of strategic alignment. We return to this idea in Section 4, where we consider potential future research on emerging IT that offers SMEs scalability and reconfigurability without requiring high resource specificity.

Before proceeding, we acknowledge that Propositions 1-3 are interrelated to some degree and that it may be challenging to consider each proposition in a strictly ceterus paribus manner. In addition to our comment in the paragraph immediately above regarding P2 and P3, we also note that a firm with a larger number of employees (P1) would likely have a more developed IT infrastructure (P3) to facilitate communication and coordination. Nevertheless, even if the factors are related, we suggest that they

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2 We are aware that this proposition (and perhaps others in this paper) could be applied to all firms and not just to SMEs (i.e., the degree of strategic alignment is positively related to the resource endowment at all firms). Nevertheless, research clearly indicates that SMEs are consistently and characteristically more likely to be resource constrained than large firms. Thus, we assert that our proposition is uniquely applicable to SMEs and points out a way in which SMEs will be routinely less likely to achieve a high degree of strategic alignment than other firms. We return to this issue of whether our propositions are applicable only to SMEs or also to large firms in Section 4.
influence strategic alignment through different mechanisms, and, thus, it is useful to discuss them separately rather than combine them into a single “size” factor.

3.2 The Effect of SME Planning and Time Horizons on Strategic Alignment

3.2.1 Strategic Planning Practices

SMEs do not always undertake formal strategic planning (Mintzberg, Lampel, Quinn, & Ghoshal, 2003). As Kraus and Kauranen (2009, p. 42) state: “SMEs are thought to be so unique that standard textbook approaches of strategic management, which have originally been developed for large enterprises, are not considered suitable for them”. There are several reasons for why SMEs lack formal strategic planning. First, resource constraints often prevent them from developing and pursuing a single, unified strategy (Lee, Lim, Tan, & Wee, 2001). Given SMEs’ limited resources, researchers have expressed doubt that extant approaches to strategic management work in the same manner in SMEs as in larger enterprises (Kraus & Kauranen, 2009). Second, strategy making, particularly in young SMEs, does not use common strategy approaches and typologies. In young SMEs, strategic planning is parsimonious rather than comprehensive in that action sometimes precedes analysis (Bhide, 1994). It can often be more important to get a new product or service to market quickly than to conduct a rigorous market analysis. As Kraus and Kauranen (2009, p. 42) state: “Business plans are rarely existent in young SMEs”. Such seemingly indifferent approaches to strategy can still be successful, however—particularly in new and rapidly-growing industries where high rates of growth can mask strategic “errors” and “sloppiness” (Porter, 1980, p. 241). In these market contexts, a large proportion of competitors will survive and prosper regardless of their strategic focus or lack thereof (Porter, 1980). Third, research has noted that high-performing SMEs do not fit a single type in Porter’s typology but exhibit characteristics of multiple types (Dess, Lumpkin, & Covin, 1997). Indeed, research has empirically verified this lack of need to choose a specific strategy (Barth, 2003): it has noted that, when SMEs combine entrepreneurial strategies with cost-leadership strategies, SMEs can outperform those with single-focus strategies. In sum, we observe that the presence of formal strategic planning and the presence of clearly-defined archetypal strategies in SMEs has been questioned for several reasons.

SMEs face challenges related to the fact that they often lack an explicit strategy statement. In order for a firm to achieve a high degree of alignment, it must realize its business strategy as intended. Conditions for business strategy realization include explicit, unambiguous intentions, clear communication to employees, and full acceptance by employees (Mintzberg & Waters, 1985). Without an explicit strategy statement, an organization’s plans will likely materialize in a different manner than intended. This phenomenon is known in IS research as strategic drift (Ciborra, 2000). Drift can occur from intended business strategy to the realized business strategy and from intended IT strategy to realized IT strategy. We argue that strategic drift becomes more likely when neither an explicit strategy statement nor a formal strategy-making process exists. Dynamic capabilities rest on repeatable processes and best practices (Eisenhardt & Martin, 2000; Teece et al., 1997); therefore, we contend that explicit strategic statements developed through a routinized strategic planning process enable a firm to develop a dynamic capability in strategic alignment. Thus, we propose:

**Proposition 4:** SMEs’ degree of strategic alignment is positively related to the presence of a formal strategy statement (i.e., the presence of a formal strategy statement results in stronger strategic alignment, while no formal strategy statement results in weaker strategic alignment).

3.2.2 Planning Time Horizon

Another unique characteristic of SMEs is their time horizon for strategic planning—the period of time necessary for an organization to implement its strategic plans and initiatives (“Planning horizon”, 2011). Research has indicated that the time horizon for strategic planning depends on the degree of uncertainty in an organization’s external environment (Stonehouse & Pemberton, 2002). The greater the external environmental uncertainty, the shorter the strategic planning horizon.

Large organizations with substantial resources need to consider the time that they will need to marshal their resources and develop markets for the strategic initiatives they launch. For SMEs, on the other hand, in a situation where initiatives could have a major impact on the organization in a short time, the organization typically measures the strategic planning horizon in weeks and months rather than years.
SMEs need to be able to adapt quickly to changes in their external environment, particularly in new and emerging markets.

What shorter strategic planning horizons mean for strategic alignment in SMEs is that, as business strategy changes rapidly, IT strategy can also change rapidly. Either of these two strategies can be adjusted quickly to support the other. Environmental dynamism promotes the development of dynamic capabilities (Eisenhardt & Martin, 2000; Teece et al., 1997; Wang & Ahmed, 2007). Organizations must learn to adjust rapidly and frequently, and those that will flourish will develop a competency in rapid readjustment. We suggest that rapidly reconfiguring both business and IT strategy and following such adjustments with the needed changes in resource deployment enables sustained alignment. Moreover, this process helps organizations develop a competency in strategic alignment as they must frequently assess and realign in response to frequent changes over short time horizons. Therefore, we propose:

**Proposition 5:** SMEs’ degree of strategic alignment is negatively related to their strategic planning time horizon (i.e., the shorter the time horizon for strategic planning, the stronger the strategic alignment; the longer time horizon for strategic planning, the weaker the strategic alignment).

### 3.2.3 Stages of Growth and Maturity

Research generally recognizes that SMEs grow in identifiable stages (Levy & Powell, 2005; Lewis & Churchill, 1983). From a wide choice of SME growth models, one that is highly regarded is the taxonomic model that Hanks, Watson, Jansen, and Chandler (1993) developed. This model has a foundation in previous SME lifecycle models such as Lewis and Churchill's (1983) model, and Hanks et al. developed it from a multivariate analysis of empirical data from 133 SMEs to reveal common patterns of growth (McMahon, 1998).  

Hanks et al.’s (1993) model comprises six stages (see Figure 1). These stages comprise four development stages and two “arrested development” or “disengagement” stages. In the startup stage, firms are small, young, centralized, informal, and have minimal functional specialization. In the expansion stage, firms are larger, slightly older, still strongly centralized, more formal in structure and operations, and are in a high-growth mode with increased functional specialization. In the maturity stage, firms are twice as large as they were in the expansion stage. They have more complex organizational structures (with more organizational levels), more functional specialization, and more formal processes. In the diversification stage, firms are medium sized, less centralized, more formal, and have greater functional specification.

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3 Other stage models of growth for SMEs exist (e.g., McMahon, 1998; Reid, 2007). While the names for various stages in each model differ, the researchers’ emphases are similar. Propositions corresponding to these alternate models could be developed as well.
Hanks et al. (1993) suggest that the two “arrested development” stages—lifestyle and capped growth—are relatively stable. Firms have grown to a modest size, but then growth stops because they have achieved a balance of size, market success, and economic health that makes sense for their long-term viability (Lewis & Churchill, 1983). Firms in the lifestyle stage are small but are much older than firms in the startup stage. They are similar, from an organizational perspective, to startup firms but have deliberately stopped growing because of the owners’ lifestyle choices and/or they operate in small market niches that do not sustain growth. The capped growth stage includes firms similar in size to firms in the expansion stage but that are typically much older.

SMEs in these different stages have different IT profiles in order to meet the requirements of each stage. In the startup stage, IT is rapidly evolving to meet the growing needs of the firm. Few people will be involved in IT and the technologies will typically be fundamental to support the basic operations of the firm, such as accounting and marketing (Lester & Tran, 2008). Organization strategy is also evolving and IT is being implemented to meet the changing needs of the business. Strategy, operations, and technology are tightly integrated as the firm struggles to survive and grow. The alignment of strategies is a natural outcome of this close association and is, therefore, quite strong.

In contrast, hyper-growth in both revenue and employees characterizes the expansion stage. The organization becomes more formal and more structured, with more voices contributing input into its direction and operation. IT faces greater demands to deliver the capabilities needed, and the firm must consider a greater number of alternatives to meet those demands. However, a lack of needed internal IT knowledge and expertise and a lack of managerial time devoted to IT usually characterize this stage. This implies that the alignment of strategies is more difficult to achieve at this stage because of the rapid growth and change in the firm means that IT struggles to keep up with evolving firm needs.

Strategic alignment in the maturity stage is more difficult to achieve than in the startup stage but easier to achieve than in the expansion stage. A slowing of growth in revenue and employees and a stabilization of the firm structure into a more complex, more formal, and less centralized form characterize the maturity
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stage. IT requirements are also more stable but more complex due to the increased size of the firm. Internal IT expertise has increased and/or IT consultants are used. At this stage, the organization develops routines and processes for strategic formulation to stimulate and support alignment between business and IT strategies.

In the diversification stage, the firm has grown to a size that puts it near the boundary of a medium to large organization. The complexity that accompanies this size increase necessitates an organizational structure that is more decentralized, more formal, and has more organizational levels, which may mean a shift to a divisional structure as the firm adapts to new markets, new products, and new processes. IT must evolve to meet the needs of this diversified and complex strategy and structure. Overall, IT is more established with less change and more stability. More employees are involved in IT (operations, acquisition, support), and a management structure is likely in place to support IT use in the firm, which implies that aligning IT is more difficult than in the maturity stage. Increased coordination challenges, more complex needs, and new strategic directions challenge the formation of intellectual alignment. However, because growth is more controlled and less change is occurring, strategic alignment should be less difficult than in the expansion stage.

Slow or no growth characterizes organizations in the lifestyle and capped-growth stages. These organizations are older and their owner/founders have decided that, based on lifestyle choices or market/competitive conditions, stability is most important. In these firms, strategy only changes when outside factors change, operations stabilize in terms of processes and employees, and IT supports a slowly evolving organization that has reached a size that will likely not change in the medium term. As such, strategic alignment will likely not change very much over time.

The differences in stages and the corresponding differences in IT profiles at each stage lead to the following general proposition and to the subsequent stage-specific ones:

**Proposition 6:** As an SME progresses through various stages of growth, the degree of strategic alignment varies with the stage.

**Proposition 6a:** An SME in the startup stage exhibits a higher degree of strategic alignment than in later stages.

**Proposition 6b:** An SME in the expansion stage exhibits the lowest degree of strategic alignment of all stages.

**Proposition 6c:** An SME in the maturity stage exhibits a lower degree of strategic alignment than in the startup stage and a higher degree of strategic alignment than in the expansion stage.

**Proposition 6d:** An SME in the diversification stage exhibits a lower degree of strategic alignment than in the maturity stage but a higher degree of alignment than in the expansion stage.

**Proposition 6e:** An SME in the life-style or capped growth stage exhibits a higher degree of strategic alignment than in the expansion, maturity, or diversification stages.

### 3.3 The Effects of Leadership/Ownership Characteristics on Strategic Alignment

#### 3.3.1 Knowledge and Experience of CEO Leader/Owner

Research generally recognizes that the leader/owner/manager of an SME is the key person in its strategy setting and operations (Stonehouse & Pemberton, 2002; Winston & Heiko, 1990). SMEs’ small size means that this individual is responsible for most of the firm’s operational, tactical, and strategic decisions. Indeed, this individual is likely to be involved in major functions such as marketing, services/manufacturing, and IS/IT (Gelinas & Bigras, 2004). The more knowledgeable this individual is about the areas of the firm, the greater the likelihood that better, more informed decisions will be made in those areas.

Research on strategic alignment in larger firms indicates that the more knowledge and greater understanding that senior management has about IS/IT in their organization, the greater the likelihood of strategic alignment (Reich & Benbasat, 2000; Tan & Gallupe, 2006). Knowledge of IS/IT is essential for the intellectual dimension of strategic alignment to be present (Preston & Karahanna, 2009; Reich & Benbasat, 2000). It seems reasonable to assume that senior managers’ knowledge of IS/IT would be
equally important, if not more so, in SMEs where a single key individual makes major strategic decisions and would be a catalyst for alignment. Indeed, researchers have noted that managers and manager-entrepreneurs are at the center of dynamic capability creation (Zahra, Sapienza, & Davidsson, 2006). Knowledge and experience are key to this process (Zollo & Winter, 2002). We extend this rationale to include the development of competency in the area of strategic alignment.

Some CEOs choose to augment their understanding of IT by appointing a chief information officer (CIO) or IT director. However, this practice is far from universal, and, in the smallest firms, formal IT officers do not exist at all. While there may be a small number of people who ensure that the firm’s IT is working and who make sure that the firm has acquired the necessary IT to execute its strategy, they often do so in an ad-hoc, reactionary manner rather than a planned one (Street, Gallupe, & Baker, 2012). At least four scenarios could occur. The SME could have a leader/owner who is 1) not knowledgeable about IT, 2) knowledgeable about IT, 3) not knowledgeable about IT but who has a CIO/IT director, or 4) knowledgeable about IT and also has a CIO/IT director. Situations with a CIO or IT director would seem to moderate the influence of the leader/owner because the leader/owner can use the expertise of the CIO rather than relying on their own expertise to align strategies. Thus, we propose:

**Proposition 7:** SMEs’ degree of strategic alignment is positively related to the leader/owner’s degree of knowledge about IT (i.e., SMEs with leader/owners who know more about IT experience a higher degree of strategic alignment, while those with leader/owners with less IT knowledge experience a lower degree of alignment).

**Proposition 7a:** The leader/owner’s influence on the SME’s degree of strategic alignment is moderated by the presence or absence of a CIO (i.e., the existence and quality of a formal structure for IT strategy development in the person of a CIO decreases the leader/owner’s influence on strategic alignment).

**Proposition 7b:** The leader/owner’s influence on the SME’s degree of strategic alignment is moderated by the quality of the relationship between the leader/owner and the CIO (i.e., the existence and quality of the informal structure for IT strategy development in the person of a CIO decreases the leader/owner’s influence on strategic alignment).

3.3.2 Entrepreneurship

In the same way that the liability of smallness can lead SMEs to plan to adopt IT in a lean way in order to conserve sparse resources, smallness can also lead SMEs to become resourceful in how they use their available IT. In entrepreneurship literature, the concept of bricolage, which refers to “making do by applying combinations of the resources at hand to new problems and opportunities” (Baker & Nelson, 2005, p. 333), provides the basis for predicting how entrepreneurial SMEs may manage alignment. SMEs that are more entrepreneurial in character may be more willing to use available technologies in new and inventive ways to execute their strategy. These businesses may also be more willing to make riskier plans and decisions about unproven IT to address problems and seize opportunities.

Research has recognized entrepreneurial organizations as an ideal context to examine dynamic capabilities because the formation of these capabilities is more transparent than in larger organizations (Teece, 2007). Research has described technologically enabled innovation itself as a basis of dynamic capability (Wheeler, 2002), and such capabilities are a function of a firm’s technological, scientific, and managerial skills (Deeds, DeCarolis, & Coombs, 2000). Furthermore, the interplay of strategy, IS capability, and entrepreneurial thinking forms dynamic capabilities (Zahra & George, 2002). Thus, we argue that entrepreneurial thinking in an SME promotes patterns of strategic experimentation, improvisation, and resource recombination. Such an environment creates opportunities for a firm to develop a dynamic capability in strategic alignment.

Support for the relationship between entrepreneurship and alignment in SMEs exists in the literature. Research has associated planning the resourceful application of IT in SMEs with greater alignment through the innovation that comes from increased learning and experience with using IT to enact a strategy (Ferneley & Bell, 2006). Research has described the use of low-cost IT as a bricolage mechanism for business strategy innovation in the IT service industry (Mahajan & Clarysse, 2013). For SMEs willing to take risks, the opportunity to overcome high resource costs by planning to use open source and cloud-based products yields innovation opportunities. Such systems not only create an opportunity for SMEs to reduce their costs but also enable entrepreneurial SMEs to experiment with the
new and sophisticated tools. This emphasis on experimentation promotes the strategic reconfiguration processes that underlie strategic alignment. Thus, we propose:

**Proposition 8:** SMEs’ degree of strategic alignment is positively related to the degree of entrepreneurial behavior that they exhibit.

4 Discussion

4.1 Theoretical Implications and Directions for Future Research

In this paper, we argue that SMEs exhibit characteristics that make them quite distinct from large firms. These characteristics concern the “liabilities of smallness” that previous authors have noted (Freeman et al., 1983) and include size and resource characteristics, strategic planning and planning time horizons, and leadership/ownership characteristics (Bili & Raymond, 1993; Chan et al., 2006a; Raymond et al., 2012). Researchers have asserted that SMEs are not simply small versions of large enterprises. Their unique characteristics mean that SMEs, by necessity, do things differently than large firms. Therefore, it is useful to focus on SMEs as a type of organization that is worthy of study in its own right and, in our case, to extend theory about how firms pursue strategic alignment by focusing on small and medium-sized enterprises.

Our theorizing resulted in eight propositions that highlight differences and similarities in how SMEs consider strategic alignment. In doing so, we develop a more nuanced theoretical foundation for how organizations develop and sustain strategic alignment in the context of “smallness”.

Taking the perspective of the dynamic capabilities framework, we theorize that the way in which SME leaders develop capabilities to adapt to market requirements influences the alignment between IT strategy and business strategy. Our analysis of SMEs indicates that the development of dynamic capabilities becomes more challenging with increases in organizational size. This aspect of dynamic capability development appears poorly investigated in both SME research and large-firm research. We specifically suggest that researchers need to examine how changes in the number of employees and changes in the type, amount, and ratio of general-purpose to specific-purpose resources influence dynamic capability development. While the SME context has indicated the importance of these issues in DCF development, insights from this future research that we suggest may yield insights for larger firms as well.

A specific potential area of research exists at the intersection of SME size/resource characteristics and cloud computing. IT vendors currently market cloud-based services very aggressively to the SME sector with a value proposition that directly addresses the favorable economics of using cloud-based IT by potentially mitigating some of the liabilities of smallness as it relates to IT alignment. Nevertheless, while cloud services may address the economic perspective of IT use in SMEs, it remains unclear whether a switch to cloud-based services is a leap that SME owners, managers, and staff have the capabilities to absorb. Can firms develop new dynamic capabilities in IT investment decisions and adoption practices as effectively and efficiently as with proprietary IT? Conceptually, there must be a specific lag between the economic decision to adopt a new generation of IT and the capabilities decision to implement that change. Vendors would have firms believe that the transition is manageable. It would be interesting to explore whether SMEs can gain economic benefit without paying a capability change expense. A closely related question concerns whether the type of new service available to SMEs is significant. A common practice for cloud vendors is to segment services into infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS), which is similar to the way MIS researchers categorize IT in organizations (Weill & Vitale, 2002). If one can make the theoretical argument that firms can adopt shared infrastructure models, which are the economic heart of cloud services, without significant capability disruptions, does the type of service moderate the relationship such that certain categories of infrastructure have greater benefits for SMEs? It seems plausible that differences exist. However, the solution-based sales approach that many service providers follow does not currently incorporate this argument. This line of theorizing provides and interesting perspective on the IT-oriented liability of smallness for SMEs.

We also theorize that frequent changes in strategy and changes in the stage of SME growth have a bearing on the development of a dynamic capability in strategic alignment. Future research could examine how dynamic capabilities emerge at firms in industries with varying values on the Herfindahl index (Rhoades, 1993). There could be an inflection point above which explicit strategy statements and longer-term planning become essential to developing a competency in dynamic strategic alignment and below
which tactics must suffice for strategy if a firm is to survive. We do not know about any research that examines whether and how industry competitiveness, the rate of firm growth, and strategic change influences dynamic capability development.

Finally, we also theorize that key personnel and a firm’s entrepreneurial outlook can accelerate (or inhibit) the development of strategic alignment. These propositions indicate a need for additional research on the role of individual leaders in dynamic capability development and even whether a particular type of entrepreneurial action can promote (or hinder) strategic alignment. Entrepreneurship researchers have, for instance, observed that firms may take a “causation” approach to entrepreneurial growth that is characterized by traditional rational strategic planning, an “effectuation” approach where the entrepreneur starts with the available means at their disposal and then builds the business given these resources, or a “bricolage” approach where a penurious environment necessitates the creative recombination of existing resources to create new products and services (Fisher, 2012). It may be the case that one or more of these entrepreneurial approaches leads to a greater degree of strategic alignment. It would also be interesting to observe equifinality, with each type of entrepreneurial action holding the potential for a high degree of strategic alignment. In sum, we see numerous opportunities for research that contribute not only to the body of IS literature but also back to theories in reference disciplines.

4.2 Implications for Practice: Three IT Management Traps

In this paper, we consolidate and extend the research on strategic alignment in the context of small business. At the same time, we recognize the opportunity to consolidate the practical implications for managing small business IT in the real world. At least three types of IT management problems (or “traps”) become apparent when reviewing the propositions we develop above. These traps include management challenges associated with growth, bricolage approaches to planning, and the risk of the owner or CEO “going it alone” on strategic alignment.

4.2.1 Avoiding the Growth Trap

While not all small businesses want to grow beyond “lifestyle” operations that sustain their owners’ financial aspirations, a subset of SMEs do want to grow and become more diversified or more profitable. A traditional way of looking at growth involves increasing employee counts, capital budgeting allocations, resource endowment, and IT infrastructure. This approach may bring its own troubles, with the “growth trap” representing the extra effort, money, and management attention that one requires to manage “more”. What we are seeing in the IT marketplace in the way of cloud-based solutions may offer an alternate solution. It follows from our theorizing, particularly in Propositions 1-3 and 6, that SME decision makers should more broadly consider newer IT innovations such as cloud services (IaaS, PaaS, and SaaS), virtual offices, and perhaps crowdsourcing as alternatives to increasing employee count, capital budgets, and IT infrastructure during periods of growth or change. The flexibility and scalability of these options enables a quick response when business and IT strategy and resources need to be realigned.

4.2.2 Avoiding the Bricolage Trap

An appealing mythology says that the leader/owner of a startup firm does not have everything readily at hand to effectively run the business and, thus, that the firm needs a “make-do” approach. It may be very tempting to rely on the bricolage approach to planning as the business develops over time, but with the rapidly changing nature and needs of a maturing business, this approach is likely to increase misalignment between IT and business strategies. Our theorizing in this paper highlights the importance of disciplined planning that is done on a regular schedule so that alignment activities remain within the control of those responsible. Regularly revising strategies on short cycles will help managers understand how well yesterday’s approach best fits tomorrow’s goals.

4.2.3 Avoiding the “Lone Ranger” Trap

The primary decision maker(s) may not fully recognize or take advantage of the benefits from educating and involving others in key IT strategy decisions. The benefits that arise from sharing knowledge and responsibility for alignment decisions, which include creating an IT-aware culture and acknowledging informal structures (Chan, 2002), is a lesson from larger organizations that SMEs can use to their benefit. The ability to act entrepreneurially in selecting which opportunities to pursue is better practiced when the leader/owner has a widely informed understanding of IT. In contexts where a CIO-type role exists, the strength of the relationship between the leader-owner and the CIO and a culture of mutual respect and
communication allows for the flow of ideas and reduces the risk that important decisions affecting alignment are limited by the bounded rationality of one person.

5 Conclusion

In this paper, we develop a richer conceptual and theoretical base for understanding strategic alignment in SMEs to stimulate work in this context from IS researchers and provide insights to managers and owners of SMEs. In order to do this, we reviewed the IS literature on strategic alignment in SMEs. While much strategic alignment research has focused on organizational-level factors that promote alignment, we suggest that the particular characteristics of SMEs point to several unique and sometimes counterintuitive relationships that exist at multiple levels of analysis. We argue, for instance, that, for SMEs, fewer employees may increase the likelihood of alignment, that a less-developed IT infrastructure promotes alignment, and that emphasizing future plans hinders alignment. We believe these propositions will encourage other IS researchers to look at strategic alignment from a fresh perspective by considering SME characteristics that will help practitioners in SMEs to better manage their IS/IT resources.
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