The overall objective of this paper is to understand how firm capabilities lead to sustainable competitive advantage in high-velocity environments. This paper serves three purposes. It first proposes four necessary firm capabilities required in high-velocity environments. It then introduces stakeholder inclusion as a main effect and as a moderating variable to the relationship between these capabilities and firm performance. Finally, it introduces a mediating variable – firm adaptability – to the relationship between firm capabilities and firm performance.

Introduction

In the past two decades, the resource based view (Wernerfelt, 1984; Barney, 1991) of the firm has emerged as a significant and influential theory in strategic thought. More recently, scholars have extended the resource-based approach to dynamic markets to understand how and why certain firms develop a competitive advantage in situations of rapid and unpredictable change (Prahalad & Hamel, 1990; Collis, 1994; Eisenhardt & Martin, 2000). In such markets, the dynamic capabilities by which firms ‘integrate, build, and reconfigure internal and external competencies to address rapidly changing environments’ (Teece, et al., 1997: 516) become a source of competitive advantage. Recent empirical work done on capabilities required in high-velocity environments has presented a wide range of results. Conclusions presented by scholars have ranged from the need to learn from path dependencies (Zott, 2003) to the need for guerrilla tactics (Lengnick-Hall & Wolff, 1998). As a result, the literature is in need of a consolidation to adequately portray the required capabilities into a manageable set of constructs.

It is also important to note that recent research done on optimal capabilities in high-velocity environments fails to discuss how firms obtain the required information to make adaptive decisions. Instead, scholars explain how firms adequately exploit the information once it is obtained. For instance, researchers suggested that loosely-coupled organizational systems (Levinthal, 1997) or simple routines (Eisenhardt & Martin, 2000) were required in such environments. Prior to the stage of exploitation, however, firms need to obtain the required information most useful in unpredictable environments. The degree of uncertainty a firm has about their external environment is determined by the amount of information they possess (Wheeler, 2002). Thus, the ability to minimize this uncertainty by acquiring critical information...
more efficiently than competitors may be a source of competitive advantage. The literature, up to this point, is silent on how firms actually obtain this information in environments encountering constant change. I argue that the inclusion of stakeholders as a vehicle for obtaining this information offers a promising contribution to the dynamic capabilities literature.

Finally, it is still unclear what constitutes a sustained competitive advantage in high-velocity environments. Given the inconclusive results presented by strategy scholars in terms of what capabilities best predict high performance in a high-velocity environment, the literature is in need of a better understanding of what it is exactly that leads to sustainable competitive advantage. In other words, as strategy researchers, we need to develop a better understanding of what mediates the relationship between firm capabilities and competitive advantage.

Thus, the purpose of this paper is threefold. I first plan to consolidate and streamline research on capabilities to identify four constructs that adequately represent the required firm behaviour for optimal performance in high-velocity environments. I define high-velocity environments as industries that face constant change, unpredictability and are plagued with complexity. This extends Eisenhardt and Martin’s (2000) definition of an industry facing rapid and unpredictable change (p. 1106). Second, I plan to introduce stakeholder inclusion as both a main effect and a moderating variable to provide additional explanatory power for the relationships between organizational capability and competitive advantage in high-velocity environments. Finally, I plan to develop new insights on what constitutes a sustained competitive advantage in high-velocity environments. Research in the past few years has questioned whether firms can actually sustain capabilities as an advantage (Collis, 1994) and I argue that competitive advantage in high-velocity environments is indeed sustainable through the concept of firm adaptability. The paper concludes with implications for both management and future research.

Capabilities in High-Velocity Environments

The concept of organizational capabilities originates from the resource based view of the firm (Wernerfelt, 1984; Barney, 1991), which assumes that firms within an industry may be heterogeneous with respect to the strategic resources they control. A short time after the introduction of RBV, researchers argued that processes and routines could also represent sources of competitive advantage. Examples of such capabilities or competencies may include a firm’s innovation processes or strategy-decision making processes (Eisenhardt & Martin, 2000). As an extension to the concept of capabilities, there is significant literature that speaks of dynamic capabilities. Dynamic capabilities are generally considered the routines and processes responsible for altering existing resource configurations for adaptation to a given environmental context (Pisano, 1994; Grant, 1996; Eisenhardt & Martin, 2000) defined them “as organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die” (p. 1107). For the purpose of this paper, dynamic capabilities are defined as the routines and processes used to configure resources for the purpose of adapting to a given environmental context.

Despite the burgeoning literature on dynamic capabilities, there is little agreement on what constitutes optimal capabilities in high-velocity environments. Lee, Lee, and Johannes
(2001) speak of entrepreneurial orientation and technological capabilities as critical factors in a startup’s performance. Lengnick-Hall and Wolff (1998) introduced guerrilla capabilities, somewhat like a form of entrepreneurial behaviour, whereby firms are able to create a constant disequilibrium. Table 1 summarizes most of the major positions presently found in the literature.

### Table 1
**Consolidation of Key Research on Capabilities in High-Velocity Environments**

<table>
<thead>
<tr>
<th>Reference</th>
<th>Capability and Performance in HVEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eisenhardt and Martin, 2000</td>
<td>Simple, new knowledge creation processes, communication leads to superior resource configuration</td>
</tr>
<tr>
<td>Lee, Lee and Pennings (2001)</td>
<td>Entrepreneurial orientation and technological capabilities, impact startup’s performance</td>
</tr>
<tr>
<td>Levinthal (1997)</td>
<td>Loosely-coupled organizational systems lead to effective adaptation in high-velocity environments</td>
</tr>
<tr>
<td>Lengnick-Hall and Wolff (1998)</td>
<td>Guerrilla capability (ability to create constant disequilibrium) leads to performance</td>
</tr>
<tr>
<td>McEvily and Chakrvarty, 2002</td>
<td>Simple, explicit, unspecific knowledge lowers imitation barriers but increases adaptability</td>
</tr>
</tbody>
</table>

As mentioned previously, the first major objective of this paper is to streamline this list into four or five main constructs that adequately represent the capabilities needed in these environments. The four capabilities I introduce include: the ability to obtain situation-specific knowledge; the ability to learn from path dependencies; the ability to maintain simple, yet structured routines; and the ability to mobilize resources. Table 2 presents these constructs, their meaning, and the literature from which they were drawn. These constructs are not mutually exclusive or effective exclusively. Instead, all capability constructs must be present in an organization for the attainment of supreme adaptability.

### Table 2
**Four Constructs that Summarize Capability Requirements in High-Velocity Environments**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition</th>
<th>Literature Sourced</th>
</tr>
</thead>
</table>
| Ability to Obtain Situation Specific Knowledge | • New information  
• Valuable/situation specific/relevant information  
• Real time information  
• Viable alternatives | {Eisenhardt and Martin 2000}  
{McEvily & Zaheer 1999}  
{Lorenzoni & Lipparini 1999}  
{Tushman & Romanelli 1985}  
{Brown & Eisenhardt 1997} |
| Ability to Learn from Path Dependencies | • Direct cost savings  
• Specialist in a dynamic capability  
• Knowing what to retain and what to dispose of | {Zott 2003}  
{Eisenhardt and Martin 2000}  
{Mcgrath 1999} |
| Ability to Maintain Simple, yet | • Simplistic  
• Flexible | {Eisenhardt and Martin 2000}  
{McEvily and Chakrvarty} |
Structured Routines
- Little specificity
- Explicit
- Iterative
- Loosely coupled systems

Ability to Mobilize Resources
- Mobilizing quickly
- Mobilizing astutely
- Mobilizing fortuitously
- Mobilize effectively
- Knowing when it is most appropriate
- Knowing if it is appropriate

2002
{Levinthal 1997}

{Zott 2003}
{Eisenhardt and Martin 2000} – implied only
{McEvily and Chakravarthy 2002}

Capability #1: Ability to Obtain Situation Specific Knowledge

In a high-velocity environment, it is critical that firms obtain knowledge at time zero that is situation specific. Eisenhardt and Martin (2000) stated that existing knowledge in a high-velocity environment is inadequate. Instead, firms must acquire real-time information through cross-functional relationships and intensive communication among those involved in the process. Brown and Eisenhardt (1997) performed a comparison of successful and unsuccessful firms and found that a distinguishing feature was the former’s ability to look to the future through the use of low-cost probes. The probes essentially acted like information gatherers for the organization in environments that were very difficult to predict. The information was then fed back to the organization for decision-making (Brown & Eisenhardt, 1997). Firms must also engage in experiential action to attain new knowledge quickly. For example, a firm may engage in a rigorous product development program through testing and prototyping.

Proposition 1: All else being equal, in high-velocity environments, there is a positive relationship between a firm’s ability to develop situation-specific, new knowledge and the firm’s adaptability competence and subsequent sustainable competitive advantage.

Capability #2: Ability to Learn from Path Dependencies

Zott (2003) argued that a firm’s ability to learn from path dependencies is a source of competitive advantage. The more an activity is frequently practiced, the easier it is to accomplish (Arrow, 1962). As a result, the level of learning will most likely differ across firms leading to diverging performance. Suppose that a firm engaged in imitation of an industry rival. Not only will the firm benefit from reduced costs through repetition, but the firm will also begin to specialize in imitative behaviour, triggering “self-reinforcing dynamics that may lead firms to specialize in distinct variants of dynamic capabilities” (Zott, 2003: 109). Thus, as firms learn from their path dependencies, their dynamic capabilities become more effective. A firm’s ability to learn from their past experiences more effectively than other firms may be a source of competitive advantage. But this construct is not limited to cost efficiency. It is also important for firms in high-velocity environments to determine what past actions to retain in their memory bank and what actions of which to dispose. Locking into past behaviours and experiences that limit future flexibility and adaptation is detrimental to the firm (Eisenhardt & Martin, 2000). McGrath
(1999) spoke of the need to learn from path dependencies by learning lessons but not being restricted by past actions. She stated that a firm’s ability to learn from failures is critical in a complex environment rather than forgetting about them. The challenge is to recognize how to retain these lessons while at the same time not being restricted by the experiences (Mcgrath, 1999). Thus, the ability to separate useful experiences from those considered irrelevant, will make a difference in a firm’s ability to adapt to the changing environment (Eisenhardt & Martin, 2000). This is a very difficult balance to maintain but may be advantageous if done well.

Proposition 2: All else being equal, in high-velocity environments, there is a positive relationship between a firm’s ability to learn from path dependencies and the firm’s adaptability competence and subsequent sustainable competitive advantage.

Capability #3: The Ability to Maintain Simple, yet Structured Routines

Many researchers refer to the need for simple routines (Eisenhardt & Martin, 2000; McEvily & Chakravarthy, 2002). Eisenhardt and Martin (2000) suggested that the capabilities should be simple and not complicated in the sense that there are few rules to the routine. Managers are given vague, yet structured guidelines to gain wide latitude in making decisions. Simple routines keep managers focused on broad issues without constraining them to specific behaviours that mimic previous behaviour. This complements Levinthal’s (1997) argument that loosely coupled systems lead to effective adaptation. Organizations that are loosely coupled limit organizational-wide shocks when adaptation is necessary which essentially increases speed. McEvily and Chakravarthy (2002) referred to the need for simple, explicit, and unspecified knowledge for effective adaptation in high-velocity environments. They note that such capabilities will lower imitation barriers but stress that adaptability is more important. These findings relate somewhat to Eisenhardt and Martin’s (2000) simple and flexible routines that limit inertial pressures along with Zott’s (2003) concept of timeliness. Routines would consist of only a few rules that specify boundary conditions on the actions of managers or indicate priorities (Eisenhardt & Martin, 2000: 1111). This logic parallels Mintzberg’s umbrella (1998) metaphor of strategy-making whereby strategies are deliberate in their overall perspective yet emergent in their specific position. Similarly, Zimmerman (2003) refers to minimum specifications – or ‘min specs’ – that provide a general sense of direction, and then allow appropriate autonomy for individuals to self-organize and adapt as time goes by (Zimmerman, 2003). As a result, simplicity is necessary for two reasons: 1) so that those closest to the action make the decisions around content; and 2) that the decisions are made quickly given the fast-paced environment.

Proposition 3 – All else being equal, in high-velocity environments, there is a positive relationship between a firm’s ability to maintain simple, yet structured routines and the firm’s adaptability competence and subsequent sustainable competitive advantage.

Capability #4: The Ability to Mobilize Resources

Zott (2003) stated that, in high-velocity environments, a firm’s ability to mobilize resources more efficiently is a source of competitive advantage. He further stated that performance differences in firms may be attributed to the time at which the resource configurations for adaptation take place. In other words, it does matter when firms adapt.
Eisenhardt and Martin (2000) explained that long-term competitive advantage lies in using
dynamic capabilities sooner and more astutely than competitors. But the conjecture that
adaptability speed is a necessary capability assumes two things: 1) that action is always required;
and 2) that action is always required immediately. An extension of Zott may be the recognition
of whether adaptation is indeed needed and at what time it is best to adapt. In other words, is it
necessary to adapt to an environmental shift that projects a short fad (Drucker 1985)? Or would it
not be best to delay shortly after an environmental shift (Drucker, 1985)?

Competitive advantage lies in the means by which managers use dynamic capabilities,
rather than the capabilities themselves (Eisenhardt & Martin, 2000). This is an interesting point,
as it stresses the importance of effective and efficient mobilization of resources as a source of
competitive advantage. Zott (2003) implied that it is even more important to understand when a
firm should use its dynamic capabilities. I include in this construct the importance of knowing if
and when firms should utilize their dynamic capabilities. It is improper to assume that firms
should always adapt and do so immediately. Drucker (1985) explained that there is nothing
worse than prematurely exploiting a perceived consumer change. Thus, in summary this
construct covers a firm’s ability to mobilize its resources quickly, astutely, effectively, while
knowing if and when such mobilization is necessary in a given situation. Thus, Proposition 4 – All else being equal, in high-velocity environments, there is a positive relationship between a firm’s ability to mobilize resources and the firm’s adaptability competence and subsequent sustainable competitive advantage.

Drawing from the literature, I have attempted to consolidate empirical findings by
identifying four capability constructs that will be used from this point forward in the discussion of
the remaining components of the conceptual model and propositions.

Stakeholder Inclusion as a Main Effect and a Moderating Variable

Stakeholder theory differs from other theories of the firm in many ways. It views the
corporation as an organizational entity through which numerous and multiple participants
accomplish a number of, and not always congruent, purposes (Donaldson & Preston, 1995). A
stakeholder can be defined as any individual or group who can influence an organization, or may,
in turn, be affected by the actions of an organization. Wheeler and Sillanpaa (1998) spoke of the
importance of stakeholder inclusion in decision-making. Stakeholder inclusion is defined in this
paper as the constant communication and alignment of values among stakeholders for the purpose
of obtaining input in the firm decision-making process (Wheeler & Sillanpaa, 1998). I argue that
stakeholder inclusion occupies two roles in the capabilities literature. It first has a main effect
role as a significant capability resulting in successful organizational adaptability and
performance. I also introduce the construct as a moderator to the relationship between the four
capability constructs identified above and firm performance. I discuss each role in turn.
Stakeholder Inclusion as a Main Effect

There is little research, conceptual or empirical, on the importance of stakeholder inclusion in high-velocity environments where complexity is abundant. Lengnick-Hall and Wolff (1998) stated that success in a complex environment is achieved by understanding the nature of the relationships with stakeholders, how these relationships affect the organization internally, and how they contribute to organizational goals and objectives. Researchers explained that complex environments that are increasingly unpredictable require as much intelligence as possible (Wheeler & Sallanpaa, 1998; Shan, Walker, & Kogut, 1994; Lorenzoni & Lipparini, 1999). Drucker (1985) explained that the intelligence required to make the computer came from the coming together of a number of different key stakeholders. Furthermore, Wheeler and Sallanpaa (1998) suggested that such intelligence can only be obtained through listening, processing, and responding positively to the values and beliefs of stakeholders. Barreyre (1988) explained that the use of ‘impartition’ (outsourcing) strategies increases with high-speed management – which usually takes place where technology and the environment are both complex and rapidly changing. Barreyre further explains that the need to coordinate vertically is a strategic initiative, as it buys the focal organization time and resources to perform its core competency and to grow sales. On a similar note, Lorenzoni and Lipparini (1999) explained that stakeholder inclusion and cooperation was critical in the packaging equipment industry because there is continuous dramatic shift in buyer priorities – a characteristic of high-velocity environments – which forces the focal firms to concentrate on what they do best. Similarly, McEvily and Zaheer (1999) argued that firms in geographical clusters that maintain network ties with interdependent institutions are well-positioned to access new information, ideas, and opportunities. Lorenzoni and Lipparini (1999) explained that the capability to interact with other companies – termed relational capability – accelerates the firm’s knowledge access and transfer with effects on company growth and innovativeness. On a more recent study, Hart and Milstein (2003) explain that without appropriate inclusion of stakeholder interests, the firm’s may perform poorly. They state that “creative inclusion of stakeholder interests can foster a differentiated position for the firm, leading to the enhanced reputation and legitimacy crucial to the reservation and growth of shareholder value” (pg. 58, 2003)

High-velocity environments require the information considered so abundant through stakeholder inclusion. Thus I propose the following proposition:

Proposition 5: All else being equal, in high-velocity environments, there is a positive relationship between a firm’s stakeholder inclusion capabilities and the firm’s adaptability competence and subsequent sustainable competitive advantage.

Stakeholder Inclusion as a Moderating Variable

The next set of propositions use stakeholder inclusion as a moderating variable for the capability constructs identified earlier in the paper. In other words, these firm capabilities will be more likely to enhance firm performance when stakeholder inclusion is common practice.
Effects on new, situation-specific information. It was earlier discussed that real time, situation-specific knowledge was crucial for adapting in high-velocity environments (Eisenhardt & Martin, 2000; McEvily & Chakravarthy, 2002). But how does a firm access this information? Although practicing intense industry monitoring, competitive intelligence, or future probing (Brown & Eisenhardt, 1997) is helpful, a key success factor in a dynamic environment is to gather information from the source of the change. For instance, customer demands in the telecommunications industry substantially decreased in the first two years of the millennium (Arnst, et al., 2000). Stakeholder inclusion through constant customer feedback mechanisms (Wheeler & Sillanpaa, 1998) might have produced warning signals of the drastic change to lessen the damage that was so apparent in the early months of 2001 (Rosenbush, et al., 2002). Manufacturers that base their production schedule on the demands of their distributors would require substantial information – especially in high-velocity environments – about the upcoming changes in customer demands.

Many researchers explain that stakeholder inclusion is a capability that leads to boundary spanning which leads to more information (Clarke & Roome, 1999; Sharma & Vredenburg, 1998, Madsen & Ulhoi, 2001). High-velocity environments call for accurate information in a timely manner. The constant dialogue and communication among stakeholders fosters the development of new, valuable information (Wheeler & Sillanpaa, 1998). The information is accurate, as it originates from the source of the dynamism. Additionally, the information is in real-time thus it alerts people early on to the need to adjust their actions to minimize poor performance. As a result, I propose the following proposition,

**Proposition 6:** All else being equal, in high-velocity environments, new, situation-specific information will be more likely to enhance adaptability competence and subsequent competitive advantage when stakeholder inclusion is practiced in a firm.

Effects on learning from path dependencies. Stakeholder inclusion provides firms with information to determine what past practices need to be retained. Tushman and Romanelli (1985) discussed the importance of stakeholders external to the firm when facing liabilities of experience. They stated that major innovations are needed from outside the organization and sometimes the industry to ensure firms do not fall victim to the desire to repeat past behaviours. In a high-velocity environment, a firm must be able to dispose of irrelevant practices and one of the ways to do this is through input external to the firm (Tushman & Romanelli, 1985). One commitment required for stakeholder inclusion is the willingness to allow collective values to develop and evolve via dialogue (Wheeler & Sillanpaa, 1998). The flexibility engrained in such an approach prevents inertial pressures that are so common in a top-down approach (Wheeler & Sillanpaa, 1998). This allows firms to be open-minded to new ideas. For instance, firms that continually engage in imitative strategies as a means of adaptation may develop valuable information from customers about whether the imitative strategy is indeed the optimal route.

Another interesting influence of stakeholder inclusion is the additional cost savings that can be retained if the entire value chain is engaged in repetitive behaviour. Japanese electronics, automobile and motorcycle companies engineered seamless alignment on product quality from the suppliers of components, through the firm and its employees, distributors and finally customers (Wheeler & Sillanpaa, 1998). Dyer (1997) performed a study on the effects of long-term relationships between Japanese auto suppliers and manufacturers. He explained that as time
passed, typical transaction costs normally present in market transactions decreased as the two firms developed trusting relationships.

As a result, I propose the following moderating effect of stakeholder inclusion,

*Proposition 7: All else being equal, in high-velocity environments, a firm’s capability of learning from path dependencies is more likely to enhance adaptability competence and subsequent competitive advantage when stakeholder inclusion is practiced within a firm.*

**Effects on simple, yet structured routines.** Several researchers discussed the benefit of simple routines (Eisenhardt & Martin, 2000), loosely-coupled organizations (Levinthal, 1997); and explicit knowledge (McEvily & Chakravarthy, 2002) in high-velocity environments. Although these characteristics may be important in such an environment, they do not speak of how information is obtained. Consequently, the benefit of simple routines with loosely-coupled systems is only applicable when an organization accesses vital information upon which managers can base their decisions. The necessary information builds intuition in the marketplace so that managers can more quickly understand and adapt to the changing situation (Eisenhardt & Martin, 2000). Managers that make strategic decisions with little information under minimum specifications will be worst off than those managers that have access to information through stakeholder inclusion. Thus, simple, yet structured routines are a necessary but not sufficient characteristic for adaptability success. In such environments, competitive advantage will only be present if there are mechanisms in place that harvest information through key stakeholders.

Related literature explains that cooperation with key stakeholders (suppliers and competitors) along the supply chain frees up resources for core strategic initiatives. Barreyre (1988) states that these cooperative initiatives are required because of the increasing complexity of the external environment. Thus, organizations need to cooperate with stakeholders in order to allocate its own resources to activities which seem more profitable, or more congruent with strategic objectives (pg. 510, 1988). As a result, stakeholder inclusion allows the focal organization to maintain the simple processes needed to concentrate on the firm’s core competencies. This subsequently minimizes the complexity in trying to do everything. As a result, I propose the following proposition:

*Proposition 8: All else being equal, in high-velocity environments, maintenance of simple, yet structured routines will be more likely to enhance adaptability competence and subsequent competitive advantage when stakeholder inclusion is practiced in a firm.*

**Effect on mobilizing resources.** Recall that mobilizing resources encompassed a range of firm abilities. It included a firm’s ability to adapt as quickly as possible, its ability to discern whether adaptation was even necessary (Drucker, 1985), its ability to known when that adaptation should take place (Zott, 2003), and its ability to know what resources to use for optimal adaptation. Speed of adaptation is one of the critical components to competitive advantage in high-velocity environments (Zott, 2003). But speed is entirely dependent on how quickly organizations can access information. Stakeholder inclusion, if managed correctly, provides firms with real time information that alerts managers early on in the decision-making process to adjust their actions (Wheeler & Sallanpaa, 1998; Eisenhardt & Martin, 2000).
Determining whether or not to adapt is a function of the level of uncertainty in an environment. Wheeler (2002) states that the level of uncertainty is determined by the amount of information known to the focal firm. Given that the literature convincingly argues that stakeholder inclusion is a source of real-time information, only with such a capability can uncertainty decrease. The cooperation literature also reminds us that stakeholder relationships enhances a firm’s ability to adapt as it allows for a “more profitable allocation of [its] human and financial resources in order to get the best out of [its] know-how and goodwill…and the retention of their organizational flexibility” (Barreyre, 1988: 508). More specifically, researchers highlight three long-term benefits of stakeholder inclusion. These include financial, organizational, and strategic. They essentially state that stakeholder inclusion allows for increased flexibility in the allocation of resources when the focal firm’s turbulent environment calls for constant adaptation. As a result, I propose the following:

**Proposition 9: All else being equal, in high-velocity environments, the firm capability of mobilizing resources will be more likely to enhance adaptability competence when stakeholder inclusion is practiced in a firm.**

**Stakeholder Inclusion Supporting Mechanisms**

Throughout these propositions I have presumed that the firm has the supporting structures and processes in place to accommodate the demands of stakeholder inclusion. Ensuring that the firm is organized to be receptive of inputs of opinion {Wheeler and Sillanpaa 1998} is not an easy task. Donaldson and Preston (1995) explained that success of stakeholder inclusion requires a fundamental shift in managerial objectives away from just shareholders toward the interests of all stakeholders. Organizational support specifically refers to structure, processes, culture, and leadership. A supporting organizational structure, through explicit job descriptions that encompass stakeholder management is critical. Moreover, firm structure must be designed to ensure that nodes of inputs from stakeholders exist and are made explicit. Processes and rewards that motivate such linkages must be present. It is also imperative that the entire organization thinks and acts with a stakeholder inclusion mindset. Finally, and probably most importantly, senior management must endorse and push for stakeholder inclusion as a fundamental business strategy. Without these supporting mechanisms, the required information considered so important in a firm’s adaptability competence will not exist. Thus I propose the following moderating relationship:

**Proposition 10: All else being equal, stakeholder inclusion will be more likely to lead to adaptability competence when there exists organizational supporting mechanisms.**

**Sustainable Competitive Advantage in High-Velocity Environments**

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2 Financial consequences of stakeholder inclusion, like credit, essentially buy you resources for future venture strategies. Organizational consequences are that the firm would be open, technologically focused, flexible, structures that are easier to control, innovative management attitude, better responsiveness to environmental changes. Strategic consequences are more strategic mobility and more market oriented.
A sustainable competitive advantage (Barney, 1991) originates from the resource based view of the firm whereby firms are differentiated through the unique resources or capabilities they possess. A competitive advantage is sustainable when it meets the four criteria of being valuable, rare, inimitable, and non-substitutable (Barney, 1991). Quite recently, researchers have questioned the assumption that capabilities are indeed sustainable in their ability to create a competitive advantage (Collis, 1994; Eisenhardt & Martin, 2000). Through equifinality (Pennings, 1992), firms may use idiosyncratic capabilities but arrive at similar outcomes or levels of performance. Thus, the criterion of substitutability is not satisfied in this case. The question of whether organizational processes, routines, and structures are advantageous or not has normally been determined by its inimitability. In moderate-velocity environments (Eisenhardt & Martin, 2000), firms that adapt to an environmental change will be exposed to imitation if they use simple processes to adapt (Eisenhardt & Martin, 2000). As a result, organizations in a population begin to converge to equilibrium. In such stable environments, firms may benefit from processes that are complex and inimitable. In such an environment, organizations can use the slow pace to engage in analytical approaches to decision-making (Eisenhardt & Martin, 2000). The use of previous experience would also be valuable given that the future is quite predictable and reminiscent of the past (Eisenhardt & Martin, 2000).

In high-velocity environments, however, the source of competitive advantage is quite unique. Organizations operating in such environments are constantly trying to keep up with environmental changes. Equilibrium is rarely reached in these environments. Given the pace of change, the environment will constantly be in a state of disequilibrium, negating the benefit of inimitability. In these environments, complex processes and routines greatly hinder a firm’s ability to adapt to their dynamic environment because of the time it takes. Thus, as mentioned, the literature referred to the need for simple, explicit, and unspecific routines in such environments. What is interesting about this logic is that these processes lower imitation barriers, as rivals can easily recognize the capabilities associated with high-performing firms.

So what is it about a firm that is most important to the strategy researcher in a high-velocity environment? Is it the complexity of the innovation process, the innovative product or service, or the unique strategy that separates the firm from competitors? A new product or strategy, in such environments, quickly becomes obsolete as consumers’ tastes change or technological advances surface. As a result, focusing on strategic content as the source of competitive advantage is not the answer. Instead I argue that it is the process of adaptation that acts as the key differentiator. Firms should not be concerned with imitation in contrast to what Hart and Banbury (1994) suggested. By the time competitors imitate the focal firm, the environment would have already changed. Firms should instead invest in the resources that develop the necessary capabilities that improve their adaptability competence. McEvily and Chakravarthy (2002) concur when they note that such capabilities will lower imitation barriers but stress that adaptability is more important.

The firm most successful at adapting to this disequilibrium will remain diverged from their imitators because it would always be one step ahead. Thus the quest for sustainable competitive advantage is not through the nature of the strategic change, or the complexity of the processes by which firms adapt, it is instead through a firm’s adaptability competencies. Thus, rather than considering the five capabilities identified earlier in the paper as direct antecedents to firm performance and competitive advantage, I argue that a firm’s adaptability competence plays
a mediating role in this relationship. A firm that is able to adapt quickly through simple processes and routines (Eisenhardt & Martin, 2000), able to determine whether or not to adapt in the first place, able to determine when to adapt (Zott, 2003), and most importantly able to determine how best to adapt through stakeholder inclusion, will be most successful. Therefore,

**Proposition 11:** All else being equal, in high-velocity environments, a firm’s adaptability competencies will mediate the relationship between firm capabilities and firm performance and sustainable competitive advantage.

Figure 1 provides a conceptual model of the propositions put forth in this paper. The five capability constructs are on the left (including stakeholder inclusion) and the moderating role of this latter construct is illustrated. Finally, adaptability competence is illustrated as a mediating variable between firm capabilities and firm performance/sustainable competitive advantage.

**Figure 1**

A Conceptual Model Introducing 4 Capability Constructs, the Role of Stakeholder Inclusion, and an Antecedent to Competitive Advantage in High Velocity Markets
Concluding Remarks

In this paper it was suggested that four constructs significantly affect a firm’s competitive advantage in high-velocity environments. These include a firm’s ability to: develop situation-specific, new knowledge; learn from path dependencies; maintain simple, yet structured routines; and mobilize resources. It is also suggested that stakeholder inclusion contributes to a firm’s competitive advantage directly and as a moderating variable between the four constructs just identified and firm performance. A firm can learn from its path dependencies, it can develop simple, yet structured routines, and it can effectively mobilize its resources, however these capabilities will only contribute to firm adaptability competence when there is a mechanism in place that provides it with predictive, accurate, and useful information. Thus stakeholder inclusion not only improves adaptability competence directly, but it strengthens the impact of the existing capabilities identified in the literature. Finally, this paper suggests that a firm’s sustained competitive advantage is dependent not on strategic content or the imitation of that content, but rather on how effective and efficient the firm is at adapting to its dynamic environment. In other words, competitive advantage in high-velocity environments is not a direct function of the capabilities themselves but rather is mediated by a firm’s adaptability competence.

Research suggests that empirical work on capabilities in high-velocity environments is scarce and presents conflicting results. I argue that one possible explanation for the conflicting empirical results is the disregard for stakeholder input. Most researchers presumed that valuable industry information is readily available to be exploited in the constructs identified. For instance, simple, yet structured routines for decision-making speaks of the benefit of speed but neglects the importance of information gathering. Eisenhardt and Martin (2000) did mention that new, situation-specific information is required, but did not explain how to obtain it. Levinthal (1997) argued that loosely-coupled organization systems are necessary in high-velocity environments but failed to explain how to access the information. Little research discussed the importance of stakeholder inclusion in satisfying the adaptability accuracy and adaptability speed required in a high-velocity environment. I argue that stakeholder inclusion provides firms with the most up-to-date, relevant information possible while freeing up the focal organization’s resources to expedite its strategic responses to the changing environment. Finally, I concur with researchers that complexity, despite its inimitability, is not a source of competitive advantage in high-velocity environments. I further argue, however, that competitive advantage is a function of a firm’s adaptability competence. This construct ignores process complexity and inimitability and focuses on how efficient and effective firms are at adapting to environmental changes. Firms may easily imitate but the dynamic nature of the environment makes their reaction irrelevant because by the time they converge with the leading organization, the latter would have further adapted.

This paper presents a number of implications for management practice. First, firms operating in high-velocity environments should work to develop the four capabilities identified in this paper. Second, firms should include, as a critical component of their organizational structure, a mechanism by which key stakeholders can provide input to firm decision-makers. This requires constant communication and dialogue, value alignment, and supporting mechanisms such as leadership, culture, structure, and processes. Finally, and most importantly, firms must realize that in such a dynamic environment, imitation barriers are of little value. They must instead recognize the importance of adaptability competence. Speed of adaptation, the information required for adaptation, and knowing if and when to adapt are the means by which competitive advantage may be achieved.
The model presented in this paper suggests that stakeholder inclusion impacts a firm’s adaptability competence under high-velocity environments. Therefore future research might contrast the performance levels of organizations in high-velocity environments that practice stakeholder inclusion versus those that do not. Or future research might look at the construct of adaptability competence and do a qualitative analysis on how this competence is affected by different levels of stakeholder relationships. This paper also suggests that we need to extend the resource-based view of the firm to accommodate stakeholder inclusion as a differentiating capability in high-velocity environments. In addition, the proposed theoretical model highlights the interacting effect of stakeholder inclusion on four capability constructs. Future research might contrast the impact of these constructs on firm adaptability competencies among firms practicing stakeholder inclusion across a number of stakeholders versus firms practicing inclusion among only a few stakeholders.
References


