The performance triangle: a model for corporate agility

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Abstract

Purpose – The purpose of this paper is to synthesize ten years of case studies and data analysis from which emerged an organizational design that facilitates adaptability, agility, and resilience. The resulting triangular model of culture, leadership, and systems is proposed.

Design/methodology/approach – Analysis of over 100 case studies over ten years along with statistical analysis of survey data from 50 of those companies resulted in the emergence the triangular model and provides quantitative support for validity.

Findings – People drive a complex and dynamic system with culture, leadership, and systems as key factors driving organizational success in a rapidly changing environment. The critical factor in adapting to change is designing organizations to maximize the vast tacit knowledge base within organizations. Diagnostic tools are necessary to identify underlying strengths and weaknesses to initiate targeted discussions and provide a baseline for measurement.

Research limitations/implications – All of the organizations were from Europe, Africa, or the Middle East.

Practical implications – The emergent people-centric triangular model with culture, leadership, and systems at the points along with the development of a diagnostic tool offers a methodology for executives to gain valuable insight into critical elements of their organizations from which to initiate constructive dialogue leading to effective action.

Originality/value – Many authors have offered theories on developing agile organizations. The emergent people-centric performance triangle and evolving diagnostic instrument add to the body of existing literature and lays the groundwork for practical tools and methods to yield practical results.

Keywords Decision making, Leadership, Dynamic capabilities, Adaptability, Organizational culture, Performance, Change management, Agility, Organizational systems

Paper type Conceptual paper

1. Introduction

In the popular 1986 movie *Top Gun* about US Naval aviators, characters Maverick and Goose (Tom Cruise and Anthony Edwards) declared that they "have a need, a need for speed" in an upcoming mission. In the life and death struggle of air combat, speed gives pilots a competitive advantage and more is better. In addition to blinding supersonic speed, modern fighter pilots must be able to make necessary adjustments then deliver an effective response to adversaries through a window of opportunity of seconds. While the modern business world may not typically be a literal life and death struggle, it may feel that way to many executives and managers. Threats appear and windows of business opportunity open and close very rapidly. The amount of information and data that is available worldwide is doubling every 13 months and projected to double in every 12 hours in the not-to-distant future (Schilling, 2013).

Researchers and practitioners have observed that the rate of change powered by this explosion of technology, globalization, and complexity has been increasing for

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decades (Salmador and Bueno, 2007; Sena, 2013). Business leaders throughout the globe, like fighter pilots, are faced with continuously changing environments where threats and opportunities appear rapidly making the need for fast, effective, adjustments critical for success. Yet organizations, unlike jet fighters, are not specifically built for speed and are typically unable to make the adjustments needed to quickly adapt to changes. On the contrary, typical organizational designs are essentially anti-change burdened with rigid leadership hierarchies, organizational structures, information systems that are not aligned with current needs, and corporate cultures with an inertia that resists new ideas or processes (de Jager, 2004; Scott, 1981; Scott and Davis, 2003). The result is that identifying and implementing meaningful change in many, if not most organizations, is more like stopping a supertanker then maneuvering it in a small harbor rather than closing in for a kill at supersonic speeds in a jet fighter. Executives who recognize the critical need for speed in the form of corporate agility when confronted with strong natural forces against agility must find a way to overcome the inertia inherent in leadership, systems, and culture in order to prosper in the twenty-first century (de Jager, 2004; Hopkins *et al.*, 2013). The performance triangle represents the accumulation, analysis, and synthesis of ten years of effort from observations gather from over 100 organizational case studies and statistical analysis of survey data from 50 of those organizations.

2. Corporate agility defined

Haneberg (2011) defined agility as the efficiency with which organizations respond to continuous change by consistently adapting. The process of continuously adapting to changes in the environment results in changing the entire organization slowly without sensing that change is taking place. Darwin (1859) proposed that species adapt to changes in their environment over thousands or millions of years as a cumulative result of minute changes to the species genetic makeup. Adaptation may be imperceptible at any one moment in time but the cumulative effect of thousands of tiny adaptations results in changing the organism to be more competitive in its environment. Organizational agility is the ability to make countless small adaptations in response to non-stop change that result in changing the fundamental building blocks of the organization. Unlike evolution of species, companies do not have millions of years to allow natural selection to drive business evolution. In today's business environment, companies must be agile and adaptable to respond in small increments that ultimately change the leadership, systems, and culture allowing the firm to survive and prosper in a different environment (Michel, 2013).

3. Existing models for corporate agility

Grantham *et al.* (2007) suggested that prosperity in the twenty-first century volatile economic environment depends on a firm's ability to continuously evaluate market conditions, reexamine and revise corporate strategies, and reallocate resources quickly. Continuous environmental change requires collaborative strategic management (CSM) that describes a dynamic decision-making process designed to engage key players at all levels of the organization. CSM describes a management model where human resources (HR), information technology, and corporate real estate issues work together in a unified process to identify adaptive changes needed to address today's major challenges; reducing fixed operating costs, talent shortages, and institutionalizing innovation. HR as a demonstration of the organizational culture become static due to

the inertia created by the body of shared beliefs, values, and customs of the organization (de Jager, 2004; Schein, 2004). Similarly, the massive expenditure of fixed costs developing information systems and real estate assets create a monetary force against change.

Doz and Kosonen (2008) suggested an organizational model called fast strategy intended to do much the same thing, that is, create an organization with the ability to move quickly to adapt to continuous change and volatility. The objective of fast strategy is to provide an organizational framework that enables the company to maintain momentum while continuously redirecting and/or reinventing the core business. According to Doz and Kosonen in order to become agile in today's economic markets enterprises must develop three key dimensions within their organizations. Strategic sensitivity for minute changes in internal and external conditions must be heightened and perception sharpened so that changes can be sensed and brought to the attention of relevant leaders. The key element of strategic sensitivity is developing processes that promote timely meaningful dialogue with a diverse collection of participants throughout the organization from different areas of expertise, cultural origins, age, gender, and abilities. Collective commitment is needed to allow executive teams to avoid counter-productive politics and protectionist behavior so that decisions can be made quickly and implemented even more quickly. Decision making under conditions of uncertainty and high risk are difficult under the best of conditions and securing meaningful and sincere commitment on high-risk decisions is a major hurdle for most firms. Resource fluidity is required internally to reconfigure business systems and processes then quickly redeploy resources there those resources are most needed. In most firms, scarce resources are committed supporting existing operations making redeployment very difficult. Long-term commitments such as building and equipment leases combined with the natural inclination for managers to protect spheres of influence adds to the difficulty of reallocating resources whether human or mechanical for more productive uses.

Centralized controls typical of classical hierarchal structures are ill suited for fast-paced environments (Hugos, 2009). Centralized control may yield increased efficiency in predictable and stable business climates but in the complex volatile business world of the twenty-first century corporate responsiveness is more critical to success than efficiency. Many researchers have concluded that organizations designed using traditional hierarchies with strong command and control structures are inherently anti-change (Hugos, 2009; Scott, 1981; Scott and Davis, 2003). Hugos proposed that responsiveness builds on efficiency but the efficiency without responsiveness may be fatal to an enterprise. In complex organizations, identifying and implementing changes in response to complex global changes requires increased coordination of diverse segments and individuals with less central control; a concept which may be counterintuitive to many organizations. Part of the typical problem in many organizations is that senior management at the top of the hierarchy takes too long to make effective decisions. Agility therefore requires implicit leadership that facilitates knowledge sharing, seeks consensus, trusts people, delegates more, and provides an environment for people to maximize inherent tacit knowledge (Nold, 2012).

Hamel (2012) suggested that innovation is at the core of an agile organization. Leaders must build organizations dedicated to meeting human needs and values in order to enable people to develop their full potential and creativity. Enabling adaptability in organizations requires a modification in aspirations, behaviors, and management systems. Organizations should be built around people to leverage critical

thinking, innovation, and problem solving abilities. Adaptable organizations are characterized by decentralization, emphasis on community, transparency in decision making, leadership accountability, rewards systems aligned to contributions, peer reviews, and enlarged self-determination (Hamel).

Recurring as an underlying, but critical, theme throughout the literature is the need for clearly defined and effectively communicated mission, vision, and values of the organization. Shared purpose and commitment to organizational mission, vision, and values becomes critical components for any change effort (Hertz, 2006; Longenecker and Ariss, 2009). Doz and Kosonen (2008) proposed strategic sensitivity and collective commitment as essential conditions for effective change. Hugos (2009) suggested the need for increased coordination across complex organizations while decreasing central control. Nold (2012) identified knowledge sharing and trust as key components to access tacit knowledge reservoirs while Hamel (2012) suggested that adaptable organizations are characterized by decentralization, emphasis on community, and enlarged self-determination among other attributes. Critical to effectively adopting any change program is the need for the people to share in the goal and believe in the higher purpose. Effective leaders are adept at describing the mission, vision, and values of an organization in a way that people understand, visualize, and adopt.

The need for fast and effective decision making, effective use of knowledge embedded in people, and innovation are also recurring themes throughout the literature on corporate agility, adaptability, and change (Doz and Kosonen, 2008; Grantham *et al.*, 2007; Hamel, 2012; Hugos, 2009). Every innovation regardless of the type requires thorough evaluation, approval, and dedication of resources to be implemented. People are at the heart of identifying potential innovations and navigating the decision-making process. Clearly, determining what must be done, how to do it, and making it happen quickly demands that organizational leaders maximize all available assets, the most important of which is the reservoir of knowledge that resides within the minds and experience of diverse people scattered throughout the organization (Nold, 2013; Nonaka and Toyama, 2005). Coordinating all of these moving parts in a fast-paced, complex, and volatile environment and doing so quickly are the essential elements of the agile organization. The speed and quality of the decision-making process enables firms to have flexible footprints described as the ability to reconfigure as needed to take advantage of new value opportunities as windows of opportunity open (Maitland and Sammartino, 2012).

4. The performance triangle

The performance triangle incorporates and expands on prior models to promote corporate agility. As shown in Figure 1, the performance triangle is composed of three primary elements: systems, leadership, and culture. At the heart of the performance triangle are people who power the system by contributing unique skills, expertise, and experience. The performance triangle frames the requirements for higher agility and speed as the measures of success in the new era.

4.1 Decision making

Superior decision making is the distinguishing capability of an agile organization (Hamel, 2012). Essential abilities for agile decision making include sensing early warning signs of changes in the internal or external environment, the ability to identify and distill relevant information and react quickly to make an impact. Decisions are made by people, which is why people are at the center of the performance triangle.

Figure 1.
The performance triangle

Other key components that enable organizations to maximize potential are centered and revolve around people functioning at all levels. People throughout the organization are responsible and want to contribute to making the firm successful. Agile organizations facilitate self-determination, self-control, self-initiative, and responsibility rather than traditional command and control techniques that are rigid, inflexible, and slow reacting (Hamel). Consider how effective that fighter pilot would be if he or she had to get permission to bank left or climb or dive while closing on an enemy at 1.5 Mach, yet, that is exactly what too many organizations do then wonder why they are incapable of reacting quickly.

4.2 Structure of the performance triangle

4.2.1 Success. Success stands at the top of the performance triangle representing the ultimate purpose of management. Successful firms meet or exceed expectations by making performance visible in the form of socially accepted outcomes. In the performance triangle model, five attributes determine success; agility as the ability to sense opportunities and react on them, alignment of the organization with strategy as a prerequisite to creating value, organizational core competencies as the foundation for sustainable competitive advantage, motivation of the team to get things done, and the wisdom of how the organization defines and uses its boundaries. These attributes define the primary intangible value creating elements of an organization driving success.

4.2.2 Culture. Culture of the organization creates shared context, enables or inhibits knowledge exchange, and defines the boundaries of collaboration. A vibrant culture establishes shared context as the common ground with a shared agenda, language, thought models, relationships, and purpose (Von Krogh *et al.*, 2000). Shared context describes a shared mindset and the behavior of individuals based on shared norms, beliefs, values, and assumptions. The organizational culture becomes the invisible force that, like gravity, shapes all interactions within the universe that the organization exists.

Organizational culture either enables knowledge sharing or is a barrier to sharing even simple pieces of information (Nold, 2012). Becarra-Fernandez *et al.* (2004) suggested that 80 percent of the total amount of knowledge in an organization exists in the minds of people, not in databases, operating procedures, work instructions or any other explicit form. More recently, Suppiah and Sandhu (2011) found that 90 percent of organizational knowledge is tacit in nature. Any condition that inhibits the free flow of knowledge between people throughout the organization acts like an infection that diminishes the ability of the organization to use that knowledge. An infected culture is one of the main roadblocks to knowledge transfer in an organization (Ruggles, 1998). Similar to a virus infecting living organism, organizational traits like autocratic leadership styles, silos, or lack of trust and respect throughout the organization effectively block knowledge sharing. Unseen or unnoticed virus make culture an organizational bottle-neck that constrain the amount and quality of knowledge sharing limiting the creativity of people, their ability to act, and disrupting flow.

Collective thoughts, behaviors, decisions, and actions require direction, alignment, and coordination. Knowledge that is not shared, exchanged, and transferred is of no value to an organization. Similarly, knowledge for the sake of knowledge has little value, which is why collaboration, the base of the performance triangle in Figure 1, is critically important. The challenge for any executive is to create a culture that facilitates people working together on tasks that add value to the organization. Effective collaboration requires a shared problem and commitment with people working together with shared way of doing things. Furthermore, Brannen and Doz (2012) stressed the importance and challenges of a shared corporate language as enablers of strategic agility.

4.2.3 Leadership. Leadership is a key component of the performance triangle. Effective leaders in agile organizations interact with people on a personal level, relate to others to facilitate meaningful collaboration, and establish a supportive work environment based on trust (LaRue *et al.*, 2006). In the broadest sense, leadership is effective communication and interaction with others at all levels throughout the organization. Many studies have been done and volumes have been written attempting to distill the essence of leadership into a list of "how to" behaviors or traits (Derue *et al.*, 2011). Successful leadership is different in different organizations and in different situations. A leadership style that is successful in one organization in a specific situation many not necessarily be effective if applied in a different organization or situation. However, the need for effective communication skills and interaction with followers are recurring themes in the literature (Haneberg, 2011; Hugos, 2009; Ulrich and Smallwood, 2003). It becomes essential for effective leaders in an agile organization to develop effective communication and interaction skills that are natural and unique to the leader and organization. Ultimately, what is important is that the individuals in the organization adopt shared vision, collaborate in a culture of trust, and engage multiple personalities, while leaders champion creativity and experimentation. Specific communication and interaction strategies will vary from organization to organization and leader to leader but the overriding, primary, objectives are for shared vision, collaboration, and positive relationships to become integrated into the culture of the organization.

4.2.4 Systems. In the performance triangle, systems represent the institutional framework with rules, routines, and tools that set the stage for rigorous and disciplined leadership. Technology-based information systems accumulate, store, process, and

provide access to information and facilitate immediate feedback. Human systems in the form of rules, routines, and guidelines of many types provide frameworks that give technology structure and relevance. The roles of systems the performance triangle context is to create meaning while balancing top down direction with bottom up creativity. Systems support implementation with the right balance between freedom and constraints to maintain control. To support collaboration among people, systems make information available to assist people to find purpose and support formation of beliefs and decisions. In addition, systems set boundaries balancing entrepreneurship with efficiency. Using the jet fighter analogy, systems are represented by the fuel that powers the jet engines.

4.2.5 People. Individuals perform at their highest potential by winning their "inner game" and overcoming self-doubt, fear, biased-focus, limiting concepts or assumptions that distort perceptions, decisions, behaviors, actions and stress that interfere with, and diminish, performance (Gallwey, 2000; Whitmore and Gallwey, 2010). Awareness, choice, and trust help people to focus attention on what matters. Reaching a state of flow, the state where performance and creativity are at a peak, must be a primary objective at all levels of an agile organization (Csikszentmihalyi, 1997).

Control systems are needed to manage both evolutionary and revolutionary change by formalizing beliefs, setting boundaries on acceptable strategic behavior, defining and monitoring performance variables, encouraging debate, and discussion about uncertainties, communicating new strategies, establishing targets, and securing attention to new strategic initiatives (Simons, 1994). Unfortunately, most traditional management systems or processes do more to interfere with people and their ability to perform than to enhance performance (Drucker, 1957). Interactive leadership and diagnostic systems play an important role in creating a work environment where people succeed in "playing the inner game."

4.2.6 Collaboration, purpose, and relationships. The result of a high-energy work environment results an intense collaboration, a high sense of purpose and trusting relationships. These features have a stabilizing effect on organizations known as resilience or "robustness" (Beinhocker, 1999; Deevy, 1995). Organizations reach higher levels of resilience through collaboration (Doz and Baburoglu, 2000), purpose, and relationships (Alpaslan and Mitroff, 2004) as cooperative strategies (Dyer and Singh, 1998). Companies are able to reinvent themselves and find new business models while the preserving core competencies (Coutu, 2002; Hamel and Valikangas, 2003).

5. Qualitative and quantitative emergence of the performance triangle

The concept for the performance triangle emerged over ten years from information gathered from case studies involving over 100 organizations in different industries throughout the world plus results from survey data gathered from 50 of the over 100 organizations between 2006 and 2011. Analysis of qualitative and quantitative information from these multiple sources exposed intersections between recurring themes and relationships between specific aspects of organizations that evolved into the elements of the performance triangle.

5.1 Qualitative origins

After analyzing ten years of case studies involving senior business leader representing over 100 firms several trends and recurring themes in discussions and stated concerns began to stand out as significant. Three primary groupings of elements were identified

as being essential for success in a dynamic and fluid business environment; leadership, systems, and culture.

Several themes revolving around leadership emerged. The need for intense interactions to rapidly address an increasingly fast-paced and complex business environment became apparent. This observation coincided with the fact that an increasing number of employees were hired for their knowledge and not for their physical contributions to work. The trend toward knowledge workers and knowledge economy has been documented by many researchers and authors for decades (Davenport and Prusak, 1998; Drucker, 1957; Mládková, 2011). Feedback from business leaders suggested that this changing demographic called for a different leadership style requiring more involvement and engagement throughout their organizations. Creating and maintaining an environment enabling knowledge workers to maximize unique and valuable abilities required focus of attention and constant energy to maintain.

With growing organizational complexity and pressure from increased regulation several common themes revolving around command and control systems emerged. Business leaders in many cases indicated that traditional command and control systems with traditional tools and methods were becoming increasingly less effective. Complex twenty-first century organizational structures required different ways to maintain adequate control while simultaneously enabling operational managers sufficient authority and flexibility to make effective on-the-spot decisions. Time emerged as a theme related to systems in the sense that time is a scarce resource that is non-recoverable once gone. Maximizing efficient use of leader's time as well as reducing time needed to get relevant information into the right decision makers hands when and where it is needed were growing concerns. Time-related themes associated with speed and efficiency of information and knowledge flow enabled by systems were frequent and emphatic.

The third major theme that emerged over this ten-year period was a growing awareness of the hidden potential of intangible, human, factors permeating organizations that shape human behaviors and responses. With increasing frequency business leaders identified the need for shared beliefs, values, and assumptions embodied in the collective minds of organizational members in the form of the organization's culture. Growing numbers of leaders identified intangible dimensions of the culture as a key factor for unlocking new sources of profitability. Themes involving organizational culture as the unseen force connecting systems and leadership emerged such that the culture anchored all else enabling the organization to be successful.

Combining and visualizing these three central themes resulted in the emergence of a dynamic triangular system consisting of leadership, systems, and organizational culture powered by people to be successful. Perceptions are one thing but business leaders ask what value does something bring to the organization and ask if a recommendation is based on fact or opinion. Therefore it became necessary to test the emergent themes of this performance triangle for correlation and significance.

5.2 Quantitative analysis

Between 2006 and 2011, responses from surveys of 50 organizations were compiled identifying relationships among recurring themes observed from many case studies over a ten-year period. The general research question was:

RQ1. Are there relationships between leadership, systems, culture and success?

The hypothesis for each intersection of leadership, culture, systems, and success was that there would be a significant relationship. The survey consisted of 120 questions

designed to provide insight into aspects of leadership, systems, culture, and success that were consistently identified as key elements in many case studies. Senior-level managers in these 50 organizations responded to questions asking them to evaluate their own organizations and how they perceived the strength of the elements along a nine-point Likert-type scale. The sample encompassed a wide array of industries, firm sizes, countries, and ownership forms as identified in Table I.

Each theme of the survey (leadership, systems, culture, success) was broken down into factors identified as significant components of that theme in case studies. Questions were developed for each factor based on observations in case studies designed to gauge the degree of influence of specific factors within the organization as judged by the respondent. Figure 2 shows the factors within each theme and the thematic question explored by the factor.

The objective of the study was to evaluate the perceived relative strength of these elements in the organization as a whole. The survey was employed as a diagnostic tool for practical evaluation of the subject organizations. It was found that

Organizations	50
Participants	895 participants; range from 3 to 80 per organization with an average of 18 participants per organization
Time period	2006 through 2011
Industries surveyed	Financial services (6); manufacturing and construction (7); consumer goods and food (10); logistics and energy (3); media and tourism (5); pharmaceuticals and chemicals (5); public service (5); foundations (2); professional services (7)
Firm size (number of employees)	0-99 (13); 100-199 (17); 1,000-9,999 (12); > 10,000 (8)
Country (of origin)	USA/Canada (5); Central Europe (24); Middle East/Africa (6); UK (5); Asia (5); Latin America (2); Australia/New Zealand (3)
Ownership	Public shareholders (28); private/family (15); public service (5); foundations/NGO (2)
Scope (of operations)	Global (10); international (15); local (25)

Table I. Sample demographics

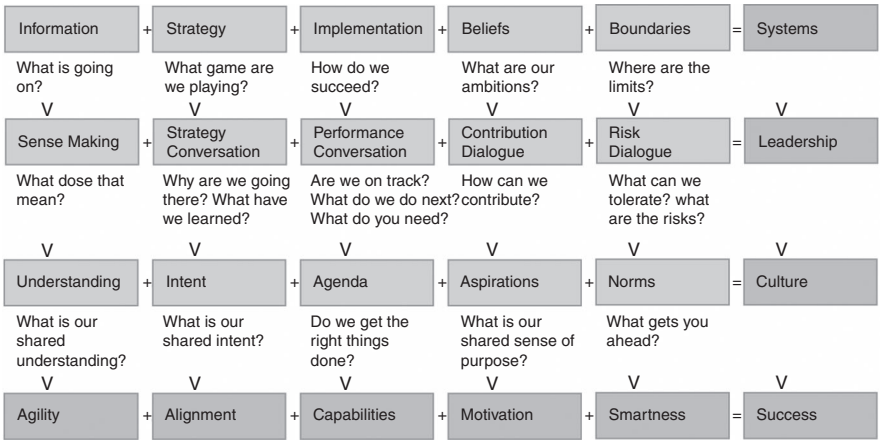

Figure 2. Factors and themes

individuals quickly and easily understand data on a 100-point scale or as a percentage. Therefore, it became necessary for presentation purposes to normalize responses to each factor on a scale of 1 to 100 in order to allow executives to quickly and easily comprehend the intensity of the themes within the organization. Values on the Likert-type scale 1, 2, 3, 4, 5, 6, 7, 8, 9 translated into 0, 12.5, 25, 37.5, 50, 62.5, 75, 87.5, and 100 on the 100-point scale. Regardless of the scale, relationships and correlations remain unchanged.

5.3 Survey results and interpretation

Analysis of data from responses by senior-level managers in 50 organizations with an average of 18 participants in each company suggested the existence of meaningful relationships between the central themes of culture, leadership, systems, and success. Using MINITAB statistical software for statistical analysis, results indicated that the correlations between these relationships are significant providing positive support for the hypotheses and the general research question. Table II shows descriptive statistics for individual themes, correlations, and the regression analysis of relationships between themes.

Table II indicates that regression analysis performed on the responses from the sample of 50 firms shows a significant correlation between the themes of the performance triangle. The strongest positive correlation in the sample is between systems and leadership giving an early indication that these attributes of the performance triangle can drive effective decision making.

5.3.1 Culture and leadership. The relationship between culture and leadership suggests that an organization's leadership team can positively influence culture through their interactions and practices. Results indicated that productive conversations between leaders and employees on direction, performance, beliefs, and boundaries help create a shared intent throughout the organization. Discussions between leaders and employees on performance expectations establish a shared agenda while individual contribution and risk dialogue influence motivation and strengthen accountability Sense making raises the awareness for important conditions.

Themes	Mean	Median	SD	
Leadership	69.84	69.35	13.00	
Systems	68.17	68.55	12.31	
Culture	68.97	68.95	14.35	
Success	73.52	72.20	11.49	
Theme	Leadership	Systems	Culture	
Systems	0.694			
Culture	0.551	0.562		
Success	0.509	0.581	0.520	
Relationships	Correlation	*Y*-intercept	Slope	*F*-value
Success vs culture	0.52	44.8	0.416	17.77
Culture vs leadership	0.55	26.4	0.609	30.95
Culture vs systems	0.56	24.3	0.655	22.15
Leadership vs systems	0.69	19.9	0.733	44.63
Success vs leadership	0.51	42.1	0.450	16.81
Success vs systems	0.58	36.5	0.543	24.50

Notes: $n = 50$. $p < 0.001$ for all results

Table II.
Descriptive statistics, correlations, and linear regression of relationships

5.3.2 Systems and culture. Strategic systems include the development and articulation of strategy as well as strategic management. Information is accumulated through measurement, reporting, and feedback mechanisms. Successful implementation of strategy includes planning and performance management of organizational units. Beliefs include vision, values, incentive systems, and tools for goal directed behavior. Boundaries establish and define the organization's mission and risk limits while governmental standards and regulation establish common ground rules for all firms in an industry. The data on the relationship between systems and culture suggests that organizations with superior systems are likely to have a productive culture.

5.3.3 Systems and leadership. Every system is a bureaucratic intervention. Systems are necessary to support effective management and leadership and to help establish and maintain a healthy culture. However, a fine line exists between stifling bureaucratic systems and supportive systems. A primary purpose of managerial systems is to support effective and flexible leadership. The data suggests a positive relationship between systems and leadership. Small changes in systems have a significant effect on leadership. Effective information systems help employees and leaders make sense of what is happening and raise awareness for what is important thereby increasing agility. Clear, concise, and well-communicated strategic goals help establish shared intent throughout the organization and promotes alignment toward achieving key strategic objectives. Constructive conversations throughout the organization surrounding implementation of strategy and performance measures promote a shared agenda and strong belief systems. Strong belief systems facilitate the evolution of shared aspirations and purpose giving organizational objectives greater meaning.

5.3.4 Culture and success. Research in anthropology suggests three bonding elements of culture: trust; transactions; and authority (Stephenson, 2008). While transactions and authority are relatively easy to decode, trust is complex, intangible, and difficult to evaluate. The challenge of any organization is to create a positive environment that encourages people to work together to share what they know and collaborate effectively. Nold (2012) showed that firms with higher levels of credibility, fairness, respect (collectively trust), pride, and camaraderie significantly outperformed comparable firms in the same industries in value creation, operational performance, and growth rate. The Nold study reinforced results from the current study suggesting that success increases as elements of the culture become more positive.

Cultural questions explored in the survey include; intent (shared direction), awareness (shared understanding of past and current), agenda (getting the right things done), aspirations (shared sense of purpose), and norms (what gets you ahead). High scores suggest the existence of a team culture with a shared strategy, clear understanding of current reality, a team moving in the same direction, and leadership with shared beliefs and boundaries. High levels of awareness of internal and external environments enable organizational leaders to sense and react quickly to subtle changes. Shared aspirations and norms provide motivation and the necessary degrees of freedom for entrepreneurship throughout the organization required for high agility and adaptability.

6. Conclusion and discussion

The impact of technology, globalization, and complexity in the twenty-first century business environment defines the dynamics of success for most organizations. In stable

industries, traditional bureaucratic command and control organizational structures and management philosophy can be successful but stable conditions are rare in today's world. Agility and speed in decision making become essential capabilities to cope with volatility and uncertainty. Since it is impossible to know what threats or opportunities will unfold it becomes imperative for firms to adopt designs and philosophies to access their greatest asset – people – and the knowledge in people's minds and experience. Tapping into the vast tacit knowledge reservoir of relevant participants to create new knowledge on which to base effective and timely decisions is a key to long-term success.

Ten years of case analysis and analysis of responses by senior business leaders resulted in the emergence of a performance triangle consisting of culture, leadership, and systems that enable corporate agility and ultimately success. The ability of organizations to quickly sense, evaluates, and adapt to changes in the internal or external environment defines agility, which is an economic reality today. Like the jet fighter pilot closing on a threat at 1.5 Mach who must make countless split second decisions, any one of which could be fatal, successful corporate executives must assess threats and opportunities, make decisions, and implement those decisions at high speed. To do otherwise could be fatal to the organization.

The emergent themes of the performance triangle supported by study results suggest that business leaders should reexamine traditional operating methodologies and make learning a process that addresses governing variables. As Argyris (1973) observed, "All descriptive concepts, once they are used to organize reality and guide behavior become normative"(p. 265). Through time, a gap develops between what is needed in form of leadership, systems, and culture for maximum performance. As checklists become embedded within the corporate structure and belief systems, accepted systems and behaviors reinforce the central tendency with mediocrity as the result. It becomes essential to identify gaps between what executives think is going on and what is actually happening.

Classic management philosophy suggests that organizations and the problems confronted by organizations can be "fixed" through reorganizing, restructuring, reengineering, or any of many management approaches. Too often, changes in firms are limited to structure and leadership programs. Executives are compelled to try to "fix" problems quickly so replacing systems becomes an achievable target that demonstrates the executive's efforts. Likewise, replacing leaders or engaging executive coaches, trainers, and executive education programs to strengthen existing leadership skills becomes an enticing strategy. Clearly any change first requires altered systems, i.e.; new ways of managing result, performance, strategy, risks, engagement, etc. Only after altering systems can leadership and people development initiatives be implemented. Unfortunately, people cannot be "fixed" in a way that allows executives to proudly display their efforts. The path of least resistance leads leaders to focus on concrete actions to change systems and leaders but fundamental beliefs and values of people are another matter entirely.

People must learn new ways of doing things to replace old ways many times on a subconscious level. The old ways of thinking were adopted and became institutionalized in the firm's cultural as shared beliefs, values, and assumptions because they worked (Schein, 2004). Therefore, people must experience success and positive reinforcement using new ways before they will internalize the change. People are affected by introducing new paradigms of thinking and acting into the culture and creating situations with successful outcomes. Positive reinforcement is needed before

the new systems and beliefs become absorbed into the firms culture by a critical mass of people needed to sustain the new ways once the forces promoting the change are removed.

Based on ten years of qualitative and quantitative study, true solutions that are effective, timely, and long lasting result from attending to people-centric aspects of the organization. Agility in the twenty-first century is dependent on blending culture, leadership, and systems in a way to maximize knowledge flow throughout the organization to develop dynamic capabilities and facilitate effective and timely decision making. Anything less and the organization will fail to maximize success ultimately to be overtaken by competitors who are more agile.

Future research is needed to explore more deeply the relationships between the major themes and elements of the performance triangle model and investigate the validity and reliability of individual constructs. Management methods and initiatives intended to provide positive reinforcement needed to change fundamental beliefs and values should be tried and subjected to testing. Unknown is the critical mass of people needed to adopt new beliefs and values needed to permanently change the culture of an organization. Additional research into the constructs of the performance triangle model across a wider population are needed as well as investigation into the critical mass of people needed to institutionalize cultural changes.

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