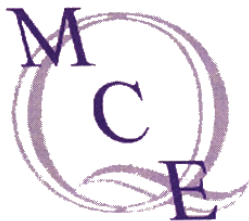


Mayberry Newsletter

The W. E. Mayberry Center for Quality and Performance Excellence

Tennessee Technological University • College of Business • Fall 2016



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INTEGRATING QUALITY AND INNOVATION IN BUSINESS EDUCATION

by Curt Reimann

For over three decades, U.S. businesses have been undergoing varieties of change initiatives. The changes are not just reactions to profit pressures, but have become transitions of enduring importance to strategy and to how businesses and other organizations operate. Those succeeding enjoy much improved quality and productivity performance and greater product and service variety, despite ever-faster cycles of new offerings. Moreover, these transitions, started mainly by traded-goods firms, are spreading across sectors, producing spillovers and adaptations that enrich learning from the major changes underway.

Since early in this period, initiatives have been called "quality", "quality management", or packaged derivatives, such as "Six Sigma." Previous newsletters discussed such changes as "quality evolution." Later in the period, innovation initiatives emerged with similar vitality and variety, and also spread rapidly. It is now clear that these changes, driven by intense and diverse competition, and enabled by technology, have profound and lasting impact on strategy, leadership, management, and job-skill requirements.

Along with these developments, we also see "side effects." Broad applications and high stakes spawn competing communities of advocacy and services, often with extravagant claims, confusing terms, and "one-size-fits-all" prescriptions. Critics often cite faddish adoption and mixed results. Adding to confusion, quality and innovation are often portrayed as alternatives, rather than as dual requirements that need to be well integrated. Such integration, however, faces a variety of barriers—conceptual, strategic, and operational—that receive little analysis. Regrettably, there has been more "dueling advocacy" than "sense-making," especially with respect to integrating quality and innovation.

Central to our analysis, we emphasize three points: (1) changes reflect the need for organizations to achieve much higher competitive performance; (2) transition content and dynamics are broad, deep, and evolving; and (3) changes have been industry- and consultant-led, and are not yet well-reflected in business school curricula, although such schools are the most appropriate entities for sense-making. Our view is that despite their great importance, the unsettled, contentious, and cross-discipline nature of the changes inhibit integration within traditional, discipline-based curricula.

In following these developments, we also conclude that the lag in academic coverage of performance reflects other common criticisms of business education: weak-

nesses in business discipline integration and experiential learning. In our past discussions of business discipline integration we noted: (1) integration requires meaningful contexts; and (2) performance not only provides such a context but also is an effective vehicle for students' experiential learning. In this article, we further pursue these parallels.

PERFORMANCE CONTEXT: INTEGRATION AND EXPERIENTIAL LEARNING

In previous articles we discussed quality initiatives, outlined quality's rapid evolution from product quality control to quality management, and the emergence of a "systems" performance management (PM) framework (Baldrige). We also described quality's enrichment as it spreads from manufacturing to services, and across sectors, such as to healthcare. In 2013 we expressed our view that the evolution is "settling," with PM becoming, perhaps, an emerging business education discipline. Although we noted innovation's inclusion in the PM framework, we did not differentiate between quality and innovation performance or discuss their complex relationships.

A turning point in our analysis (2011) arose in accreditation preparation, discussing a recurring criticism of business education: weakness in business discipline integration. Critics say that students' understanding of discipline linkage takes place via experiential learning, but mainly after business school completion. Our PM perspective had led us to view business disciplines, by their nature, to be "tools" that can be (and are) related, and linked, in multiple ways, depending upon application contexts and management systems. For example, multiple linkages among disciplines often exist in the same organization, especially in real-time problem solving. Accordingly, we concluded that business discipline linkages require purposeful and meaningful contexts. This view led us to seek primary contexts, that should be learned in school, that would not only help rationalize business discipline relationships, but also serve as platforms for larger, experiential learning, in school and beyond. Moreover, we add here that such contextual thinking also reveals another key educational point: that disciplines might link in many ways, a concept we believe should be emphasized in basic business education.

Our context focus then led us to seek context criteria. Accordingly, we drafted the following: Authenticity; Experiential; Systems Orientation; Broad Applicability; Open and Dynamic; Meaningful Body of Knowledge; and Adaptation to Business Education. Applying these context criteria, we found that two contexts--performance and strategy-- fit well, consistent with current and potential capstone offerings. Based on this analysis, we noted especially:

- * in both these contexts (performance and strategy) all business disciplines arise, but do so as means, not as ends;
- * performance requirements are needed not only to rationalize discipline linkages, but also to making strategy itself more complete, experiential, and intuitive; and
- * explicit inclusion of performance in strategy makes disciplines and their linkages seen, more clearly, as driven by needs and opportunities. We see this as important for modern job preparation.

In our ongoing PM work, we also observed: (1) growing overlap (and some tension) between two foundational performance areas, quality and innovation; and (2) increasing business school (and university) interest in innovation and experiential learning. These developments encouraged us to take a closer look at PM in detail, and, especially, the importance of both areas, their relationships and integration, and their overall roles in experiential learning.

We emphasize that even though the PM framework integrates overall performance, it does not itself define the larger (and evolving) body of knowledge of the PM discipline. Nor does it seek to differentiate between quality and innovation. In this sense, the framework is "open" to learning via key parallels in basic concepts that transcend sectors and organizations. Importantly, from the point of view of education and employment, understanding the cross-sector parallels is critical. For example, in healthcare, PM incorporates a sector-specific body of knowledge, often called evidence-based practice. Conceptually, then, PM's a core discipline accommodating "families" of specialized, but parallel, bodies of knowledge, ones that facilitate sharing and learning across sectors and organizations.

In this article, we further pursue PM and business education, with focus on integrating quality and innovation concepts, relationships, and practices. In doing so, we acknowledge perspectives gained and reinforced by an AACSB Report on innovation.

AACSB Report on Innovation

AACSB (2010) published an authoritative and timely report: "Business Schools on an Innovation Mission." The Report: highlights the importance of innovation to business school constituencies; describes, via a framework, roles business schools play in innovation; and recommends ways to strengthen business school contributions.

Excerpts from the AACSB Report important for our work include:

- (1) The concept of innovation is deceptively complex and often misunderstood. A com-

mon definition of innovation has not yet emerged. However, the Report relies upon the Oslo Manual Definition: "The implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations." The essence of innovation, reflecting economists' view, is that it creates economic value to the consumer and/or the producer.

(2) Innovation has a higher purpose than profits and competitiveness. The Oslo Manual definition does not restrict the purpose and context of innovation. Today, larger and larger amounts of talent and energy are dedicated to solving social problems when there is no clear underlying financial motivation.

(3) Innovation successes have not been built solely on science and technology. Innovation is as much about leadership and management as it is about science and technology. Innovation happens only when the technological and managerial aspects work together, which is itself a significant management challenge.

(4) Excellence in the performance of core management tasks has significant impact on innovation success. Maintaining the proper balance is a role for management and one that academic institutions should prepare their students to perform.

And, we note, especially:

(5) Innovation requires more integrative thinking and integrated curricula. Currently integrative thinking is viewed in different ways, and although everyone seems certain that requiring an integrative "capstone" course or experience is no longer enough, there is not a generally-accepted way to approach integration in management curricula.

COMPETITIVE INTENSITY: DRIVERS OF QUALITY AND INNOVATION

Global competition has impelled two major types of performance initiatives--broadly, quality and innovation--attracting industry and media attention, and often heralded as remedies for "declining national competitiveness." Parallel problems and needs across firms tend to induce creation of communities of service providers. Also, the visibility of these performance areas offers insights to their motivation, methods, characteristics, relationships, evolution, and results. Below, we outline the 3-decade period in terms of two "eras" that now overlap.

Quality Era (1980s-->)

In the 1980s, US quality "gaps" relative to Japan, mainly in manufacturing, became visible through consumer experiences and national media. US efforts were launched to copy Japanese quality methods, such as working in teams ("quality circles"). Although defect-quality improved, better gains in quality and cost reduction occurred via broader, problem-prevention approaches, often called quality management. Important to such approaches were enterprise-wide ("systemic") applications, and creation of quality units, often led by senior executives, rather than by quality control specialists. During this early period, the US created the Baldrige Award (1987) to accelerate sharing of "best practices." The Award led to design of a framework that integrates overall enterprise performance requirements, within an assessment system. Also during this period, quality standards, such as ISO 9000, came into wide use around the World.

Major observations from this continuing era include: successful organizations achieve significant improvement in enterprise-level quality, productivity, response times, and flexibility; practices still spread, not only among manufacturing companies, but also to other sectors such as healthcare; quality is more market-driven, not just defect-focused; systems-oriented packages of tools, such as "Lean" and "Six Sigma," accelerate improvement and spread; and process focus is critical to improving quality, productivity, flexibility, and responsiveness. The pace of change, coupled with greater product customization, market segmentation, and outsourcing, are changing how work is defined, managed, and performed. Cycles of improvement became more open to change, beyond correcting defects and problems.

Innovation Era (1990s-->)

In the 1990s, many organizations, especially those with quality parity and improved cost positions, but now under increasing pressure from low-wage competitors, placed more emphasis on innovation as the best route to long-term growth and survival. Such recognition is now widespread, not only in companies, but also in high-wage nations. Interest in innovation is also pervasive in US state economic development units, drawing them closer to universities' sources of innovation, and promoting university outreach.

Observations from this continuing era include: rapid spread of innovation practices within and across sectors, and, like the spread of quality, innovation is broadening beyond focus on new products, to enterprise-wide work innovation, that affects all jobs. This opens more types of innovation, such as business model changes, and sources of innovation, such as learning from leading customers and via so-called "open sources."

Current Situation

After early periods of "fad-like" adoption, both areas continue to evolve, spread, and increasingly overlap. Some organizations, and units of larger organizations, remain slow to change as do many small companies. No clear patterns of enterprise "orchestration" of quality and innovation are yet evident. Quality tends to be viewed more as cost-cutting, process simplification, and incremental improvement; innovation tends to be more directly product and market focused, and more open to business model changes. Both areas increasingly emphasize "systems" concepts, even though focused projects are prevalent. Some organizations first adopt quality initiatives to reduce waste and create capacity for new product initiatives. Quality initiatives are widely regarded as faster and more predictable. For example, practitioners are now better able to identify, and correct, familiar patterns of resource wastes. However, many quality practitioners have difficulty transitioning to innovation services. One key and revealing distinction: Innovation proponents are active in promoting economic development initiatives, often technology-based, many involving university outreach programs, such as incubators.

QUALITY-INNOVATION INTEGRATION: BARRIERS

Although spread of practices in both areas continues, within and across sectors, understanding of quality-innovation relationships and integration lag. To account for this lag, we need to look beyond “drivers” of integration to the factors that inhibit it. We see three major, and interrelated, types of barriers:

a) Concepts, Objectives, Terminology, and Tools

Although basic concepts like quality control and product innovation are intuitively clear, quality and innovation both now have much broader meanings and applications, more tools and sources, making them overlap as well as “coexist.” Such broader meaning, and confusion, are often reinforced via “truisms” such as “quality and innovation are everyone’s job.” Language not only confuses but also might convey preferences or reflect stereotypical cases. Preferences are magnified by specialized consultants and media, often via selected examples of dramatic gains, failures, and misuse.

b) Rapid Pace of Change and Wider Ranges of Choices

Dynamic, competitive factors demand real-time decision-making and action. In addition, outsourcing, customizing offerings, shorter product cycles, and alternative business models pose wider ranges of actions. Responses require rapid implementation, often across traditional, perhaps rigid, boundaries. Evaluating choices, such as “improve” vs “change” (not mutually exclusive), often require decisions, before work begins.

c) Legacy Organizations, Management, and Work Cultures

In many organizations, quality and innovation were well-defined and usually managed in separate units, with stable planning, job responsibilities, and management. Rapid change requires more contingent planning and management via processes that cross unit lines. This demands greater flexibility than in the past, and often creates tensions among work units.

As to culture, quality’s roots are quality control of current products, via documented procedures. Its aims are compliance and low-defect rates. Innovation’s roots are new products, with longer-term, and more general processes. At the common “stereotype” level, quality is seen as “inspecting others’ work to catch defects,” and “incremental improvement;” innovation is seen as working on ideas for the “next big thing,” needing flexibility and many trials for success.

Many current employees carry over from legacy units. Attributes for past success, reinforced by training and experience, led to different expectations and tools, ones that under time pressures, often inhibit facile cooperation. In quality, process definition is critical. In innovation, process may be a “loaded” word, even though there should be clear expectations about stages. It is often argued that one can’t regiment “bold ideas.”

QUALITY-INNOVATION INTEGRATION: OBSERVATIONS

Below we summarize what we believe are important (and interrelated) factors in organizational change, taking into account the barriers outlined above.

1. Systems Thinking

A holistic (“systems”) view of organizations is needed to understand and accommodate quality and innovation opportunities, requirements, and roles, to enable creation and responsive management of integrated strategies. Systems are held together more via visions,

objectives, measures, and process management, and less by chains of command.

2. Strategy and Strategy Deployment

Strategic planning must not only set directions but also convey clear strategic intent, enabling operational flexibility. Moreover, plans should include objectives and metrics relative to critical success factors that enable alignment of organizational goals and measures, while avoiding rigidity.

3. Organization, Leadership, and HR Management

Organizations need flexible units and cross-unit metrics, processes, and teams. This requires boundary-spanning, process-management leaders, and cross-team assignments such as to rapid-response, problem-solving projects. Within larger organizations, performance concepts, terminology, and tools should be standardized to enable learning and sharing. Increasingly, incentives are tied to process and performance indicators.

4. Performance Assessment

Regular reporting, sharing, and analysis of performance metrics are critical. Such data are useful for “brainstorming” problems and opportunities, ones open to quality and innovation solutions. Assessment provides a “neutral” situational analysis.

5. Start-ups and Growth

The innovation era places great emphasis on start-up companies and to new-growth opportunities within existing companies. States and regions, often involving universities, are investing in new ventures. There is increasing emphasis on speeding up so-called learning curves for new ventures and products, via “lean” methods.

6. Sector Adaptation and Spread

This opens new opportunities for business graduates, cooperative ventures between business schools and other university units, creation of regional programs, as outlined in the AACSB Report, and so-called Communities of Excellence.

CURRICULUM CONSIDERATIONS

The AACSB Report on innovation highlights the many opportunities business schools have to promote and support innovation, regionally, and in the US. The Report details the important roles of general management to innovation success, and the need for more integrative curricula. However, the Report’s scope does not cover overall performance or the innovation-quality interface, beyond general observations. Also, the Report does not imply specific curriculum changes or approaches to modification. Our comments below offer some thoughts along these lines. These comments are based on 5 key premises arising from our analysis:

(1) Leaders in all organizations, as their primary focus, are responsible for performance;
 (2) Innovation and quality, broadly defined, are now both well established as major parts of performance, not only in businesses but also in organizations in all sectors. Quality and innovation provide enduring and expanding bodies of knowledge and practices that support all work, and therefore need to be well-covered in business education;

(3) Understanding the innovation-quality interfaces, including barriers, is essential to integrating them in strategy, management, and operations. Such understanding is applicable across economic sectors;
 (4) Performance is an authentic context not only for integrating business education disciplines but also for improving experiential learning; and
 (5) Students’ mastery of PM concepts and practices broadens employment opportunities, taking advantage of conceptual parallels in sector spread. Understanding such parallels is important to successful interdisciplinary collaboration.

Performance Coverage: Capstones

Although a credible case could be made for a basic PM offering, or a second capstone, time constraints make such expansion unlikely. However, strategy, the widely accepted capstone, should explicitly cover performance, thus tying business disciplines to strategic outcome objectives and to operations. We caution, though, that if strategy offerings emphasize types and examples of strategies at the expense of deployment depth, it would be difficult to treat PM in ways that reveal the roles and dynamics underlying high performance. Perhaps the most realistic approach is to encourage inclusion of at least one strategy case and/or experience that reveals the full role of performance, via input to strategy, deployment, management and performance tracking. Concepts such as systems thinking, terms of competition, strategy-specific critical success factors, and related pricing points, should be included in the case. Also covering differences in these factors within and across industries, firms, and sectors would help sharpen the meaning of strategy itself. Short courses in PM, including an assessment experience, perhaps via participation in a state quality award program, as is done at TTU, would serve this role.

Performance Coverage: Across Curriculum

Even with explicit inclusion of PM in strategy, deployment of PM concepts across curricula to enhance experiential learning, should be considered. This includes stage-setting in general management, emphasizing responsibility for performance as the primary expectation of leadership. It is especially important to define and illustrate performance areas, such as quality and innovation, that go beyond financial indicators. This should cover metrics, tracking, and uses of data. Although it is difficult to cover organizational performance in discipline courses such as accounting and marketing, discipline-oriented metrics and examples of the multiple roles disciplines play in competitive organizations would be beneficial in building students’ understanding of performance as well as varieties of applications of discipline knowledge. It is critical to reinforce across curricula, especially in human resource courses, the significant distinctions among professional competence, personal performance, and organizational performance. These important distinctions help students understand how organizational performance broadens and rationalizes discipline knowledge. It also enables richer understanding of disciplines and their linkages, clarifying the meaning of job-based innovation, and enhancing employment opportunities.

Achieving Performance Excellence in Software and Technology Companies

Mayberry Lecture by Steven F. Hodlin

Steven Hodlin began his lecture with a brief overview of Blackbaud, noting that Blackbaud serves the needs of non-profit organizations, large and small. Currently, it has more than 30,000 customers, in areas such as education, health, human services, and faith-based. Services include accounting, fund raising, applications hosting, and making payments.

Hodlin pointed out that Blackbaud acquired a company called Target Analytics, integrating it with its other solutions services, that enable customers to learn more about their market demographics. "This now enables us to use client relationship management to capture information for use in analytics. In this space, our competitors are niche players, not offering Blackbaud's breadth of solutions services."

Addressing his lecture's quality theme, Hodlin, sharing personal perspectives based on his extensive experience in diverse industries, said: "I look at the company beyond quality from a systems view- as a business- its strategic planning, leadership, and customer focus. I assess the company through this "lens", identifying the good things it is doing and the opportunities to improve. I focus on processes, because products and services are the outcomes of processes. Good results are the dependent variables. So often, companies build processes that are convenient for them, but provide poor value to customers. We need to understand the customers' expectations and drive these into our organization. This will create a better "value stream," eliminating waste and reducing costs and cycle times. But building capable processes requires us to understand process behaviors. The secret to this is determining what causes processes to behave the way they do, especially variations in outcomes. I use statistical process control to determine process capability, using all the data points." He described this in terms of three basic requirements: process analysis and discovery; process control; and process improvement.

Hodlin explained the need to identify and focus on the variables that have the most effect on output. Critical to success here is process mapping. For example, customers might complain about billing errors. So the billing process needs to be examined in detail, including places where there are hand-offs across different functional groups. "In our process analyses, we not only correct such errors, but also apply the value-added concept, asking three key process-related questions: (1) Is it a value to the customer?; (2) Does something vary in the process?; and (3) Is the process done right the first time?" Hodlin said if he can't answer "yes" to all three questions, by definition, its non-value-added. "This type of process focus has allowed me to work in many industries--getting around each industry's view that quality methods don't apply because "we are different." Hodlin emphasized that Black-

baud's process work can be described as: Customer Centric, Process Focused, and Data Driven. This requires a culture change—a point he made throughout his lecture.

The changes Hodlin described are reflected in Blackbaud's five Strategic Themes for 2015: Business Growth; Operational Excellence; Quality and Customer Delight; Employee Engagement and Leadership; and Financial Performance. "We're working on changing our culture and integrating into one Blackbaud. Our culture change aims at building loyalty, via a foundation of everyday quality, and building capabilities, and tying it all together via our program and culture. We now meet monthly, examine data from all our business units, and work together as a leadership team."

Hodlin stressed the importance of education and training to Blackbaud's culture-change agenda. "We're tailoring this to the level of all employees via four modules. First, we're teaching management about the whole approach, including Lean, Six Sigma, and process focus, so managers can enable employees. Then our people go through training in Lean, Six Sigma Green Belt, and root cause analysis. The plan here is to have leaders available throughout the company who know how to identify and eliminate errors and waste. My group serves as role model, but now, after only eight months, we already have people and teams implementing our process improvement strategy. That's the basic idea-- we want more and more people able to do this. Critical to this is recognizing what we call the dual functions of work- the daily work itself and the improvement work that should be part of every job. The dual function of work covers everyone in the organization, from the CEO to the most recent hire. These are now our enterprise processes, including planning, product development, sales, delivery, services, support, and account management."

Noting the importance of ongoing evaluation, Hodlin pointed out that "We've done some assessments: we're about a level 2 (on a 5 scale). We want to be at least level 4. We're now looking at our entire software factory, leveraging what we have learned from Capability Maturity Model integrated (CMMi) and Information Technology Infrastructure Library (ITIL) assessments and prioritizing actions. We're also working on sales effectiveness and finance optimization. We're building a center of excellence with people from all functions, business units, and resource groups. Right now, our primary focus is on software development, financial optimization, leadership development, and change management. CMMi is the primary focus in R&D, along with some "pain points" we've learned via our assessments. We're also standardizing our metrics, our risk management, and our requirement acceptance. Our processes leverage off each other and we share lessons learned."

In his overall lecture summary, Hodlin said: "We're trying to build and market our brand-- around Blackbaud Quality. A critical measure in this is our Net Promoter Score (NPS). Every business unit has a goal to improve its NPS." (For those not familiar with NPS, he said that it measures the like-

lihood of customers recommending Blackbaud's services to others. In simplest terms, NPS is percent promoters minus percent detractors.)

"We're emphasizing leadership development, including open communications, collaboration, building trust, and improving decision-making. We're reinforcing this via 360 degree assessments, workshops, coaching, and other actions."

"Change management is a key priority. This includes clarifying our goals and developing a transition plan with special emphasis on communications, including measuring and monitoring the effectiveness of the changes."

Mr Hodlin ended his lecture with advice regarding achieving organizational excellence: "One size does not fit all--you need to understand the culture of the organization, and build on what works well. You need to adapt the concepts and theories to fit goals, strategies, and culture. Also critical: improvements need to be expressed in the language of management: dollars !!"

About Steven Hodlin

Steven F. Hodlin is senior director of operational excellence for Blackbaud, Inc., a leading provider of software and services to nonprofits. He is responsible for quality and for leading Blackbaud quality initiatives.

Hodlin holds a B.S. in industrial engineering and operations research from the University of Massachusetts, and an M.B.A. from Babson College. He is currently pursuing a Ph.D. in management from Walden University.

Prior to joining Blackbaud in 2014, Hodlin was vice president of performance excellence for Video Gaming Technologies, Inc., (VGT). In that role, Hodlin led all quality and performance activities. VGT was recognized via Baldrige-criteria based quality awards in Oklahoma and Tennessee.

He also served as vice president of business excellence at DST Output. DST Output was a three-time recipient of Industry Week's Top Ten Best Plants in North America. Prior experience includes service as vice president of performance excellence at Boston Financial Data Services.

Hodlin has served as a senior examiner and alumni examiner for the Malcolm Baldrige National Quality Award since 1994. He has also served as a senior judge and examiner trainer, and as a member of the Board of Directors for MassExcellence. Earlier he served in the Maryland Quality Award Program.

Hodlin is certified by ASQ as a Software Quality Engineer, Six Sigma Black Belt, Quality Engineer, Reliability Engineer, and Quality Auditor. He has served as a reviewer for ASQ Quality Press since 2004.

Summary by Curt. W. Reimann

Performance Management in the New Venture Context

by Brian Nagy

Introduction

I recently read Curt Reimann's article in the Fall 2013 edition of the Mayberry Newsletter. I appreciate all of Reimann's insight and understanding related to the challenges of linking performance management (PM), as it relates to training and fostering of practitioners-to-be, to business education (BE). He inspired me to think what I can do to contribute to the PM cause, both in the classroom and beyond. I write this article considering what can be done beyond the classroom, because that is what I struggled with for the first five years of my seven-year academic career as a professor of management. It is an article based on my experiences while managing capstone projects related to the new venture setting, where resources to collaborate are most often limited.

I am fortunate to have had the opportunity to lead and manage over 150 Senior Capstone Projects at the university where I previously worked, during Fall Semester 2008 through Spring Semester 2015. I struggled with a great majority of the first forty or so senior projects that I facilitated from 2008 through 2013 that were related to new ventures (i.e., infant firms or adolescent firms). I accepted firms as clients based on a number of factors; however, the number one criterion was always that the firm had to be past 'start-up.' These newly started ventures seemed to always be sources of stress, and collectively were a challenge for me to ensure a bridge between PM and BE was forged. Above all "teaching" clients through my students was not natural and not easy.

The management of performance was not the prevailing thought of most of the entrepreneurs and managers leading those forty or so new ventures that made up a significant number of the 2008-2013 Senior Project clients. Most leaders were concerned with day-to-day tasks and responsibilities, and doing things in a "my way" manner in order to commercialize their newly scaled prototypes and creations. Most of these organizational leaders did not have the luxury of forming interdisciplinary teams comprised of managers, due to firm size. Most of these projects left my students, formed and managed in groups of four or five business students, expressing uncertainty why the clients even got involved in the Senior Project program in the first place. In the fall of 2014, I added to my coaching activities of students a lecture related to the management of liabilities and assets of newness, hoping some of the seminal thoughts and concepts of this area in entrepreneurship would funnel through my students to these new venture leaders that seemed, at times, wrapped up in their operations and not open to new strategies and business tactics that could possibly ensure their firms' viability and prosperity. This particular article summarizes the thoughts and ideas I conveyed to my students in the last couple years of

facilitating the Capstone Course, hoping that maybe you can think about your own new ventures, or your consulting clients, and/or your students who are working with firms in the early commercialization stages of development. I hope to convey the importance of what can be done to manage firms that may not have the resources yet to solve problems in a collaborative interdisciplinary manner.

Get Legit

As a new venture seeks to begin and ultimately maintain operations, resources are of paramount importance. Legitimacy is arguably one of the most important resources available to new ventures. In the new venture context, legitimacy is regarded as favorable judgments of acceptance, appropriateness and worthiness made about entrepreneurs and their efforts. Legitimacy is thought to be a gateway or mediator to resources such as capital, employees, and ties to customers that new ventures otherwise would not be able to obtain. Arguably, legitimacy has no specific value and cannot be accounted for directly as a firm asset. Yet, being regarded as a legitimate firm may allow a new venture with limited resources to overcome some of the malevolent stigmas inherently tied to newness, thought to be significantly related to the demise of many new ventures.

The attainment of legitimacy is done through three general methods. First, in a strategic choice sense, firms can demonstrate that they are the "latest and greatest" of the market offerings. We see this method used often in well-known innovative companies like Apple and any firm employing the services of consulting firms like IDEO. Another method is to use isomorphic features and tactics that are proven in the marketplace to attain legitimacy status. This method is based on stakeholders' sentiments related to the old adage, "If it walks like a duck, if it sounds like a duck, and if it acts like a duck, it must be a duck." This method is often used to attain legitimacy by entrepreneurs who understand the institutional norms that need to be engrained in their products and operations. The third method of legitimacy attainment is using socio-political methods to impress stakeholders. Entrepreneurs savvy in political skill and impression management techniques may be well-served using this method.

Beyond Legitimacy

Legitimacy is the most written about and discussed of all the "liabilities of newness." However, other features – or rather, lack thereof – of new ventures can hinder new venture success. Lacking perceived reliability, accountability and availability also poses many significant problems for leaders of new ventures.

Lack of reliability is often a problem as new ventures commercialize their offerings. Reliability is the ability to systematically produce consistent results over a period of time. Inconsistencies in production and service negatively affect stakeholder perceptions. New venture leaders must manage external perceptions of reliability, especially if stakeholders value reliability more than other organiza-

tional characteristics, like innovative features. As you know, given knowledge of product recalls, the auto industry and its critics are particularly in tune with this liability.

Another liability of newness hindering new venture success is lack of accountability. Accountability is the demonstration of the ability to assign responsibility related to operational activities and outputs produced by the new venture that are either in conformance or out of conformance. Highly attentive and friendly customer service and a demonstration of excellence (e.g., ISO certifications) help to combat any thought of lack of accountability. Through detailed documentation and guaranteeing of procedures and practices in the events of nonconformity and customer dissatisfaction, new venture leaders can better assure stakeholders that when inconsistencies and problems arise, they will be remedied. If anyone has bought a pair of shoes from Zappos, you understand the company has completely mitigated this liability of newness.

Lack of availability is yet another hindrance of new venture survival. Lack of availability is the lack of inventoried products, services, and information to be obtained at the times they are requested or required. Again, organizational size and limited financial resources play significant roles in hampering the abilities of new venture leaders to bring products and information to market as the market demands them. The issue of availability is further highlighted when considering that most customers recognize and embrace the importance of just-in-time inventories and instantaneous information.

It is not all negative

I do not want to give the impression I only harp on the negative. A positive side to firm newness exists. Similar to new venture liabilities, the 'assets of newness' are inherent in new ventures. Thankfully, when accentuated and well-managed, these assets of newness aid the leaders of new ventures in their efforts for high levels of performance. These assets are inherent and intangible distinctions and properties of new ventures that may actually create perceptions in the minds of stakeholders that the new venture is a sort of "breath of fresh air," likeable, and flexible. When stakeholders, especially potential customers, view the new venture and its offerings as innovative, newly designed, and sensitive to various progressive societal movements related to technological and societal advancements, they may more often than not consider the new venture as a much needed addition to the marketplace.

Accentuate the positive

Organizational energy is a very important asset to be utilized in the beginning stages of operation. Organizational energy is effected in the minds of stakeholders when they think organizational members are working tirelessly, diligently and happily to ensure the success of the new venture. New ventures are usually populated with

employees, managers and leaders that have significant affection for their new workplace. Organizational energy is the manifestation of the passion that organizational members show for a new venture because of its novelty and the challenges of simply being “the new kid on the block.” Stakeholders, such as potential customers, suppliers and employees, are often attracted to ventures that fit their personal values, and ventures that fulfill their need for working with and supporting something new. Therefore, organizational energy must be demonstrated. Personally, I cannot stay out of the newest ice cream shop in the local shopping mall if the employees are enthusiastic about the way the ice cream is different than other shops. And I will always consider a return visit to the newest “one off” local restaurant if I am left with the impression that everyone working there is excited about the new dining establishment.

Organizational flexibility is another important asset of newness that aids a new venture’s growth. Organizational flexibility exists when unanticipated and unsolicited modifications to products and services appear to the customer as commonplace and no big hindrance. These tactics and behaviors can actually become competitive advantages in firms that operate in highly dynamic environments where the marketplace

and customer sentiments quickly change. In older and more established firms, an inverse relationship between flexibility and age usually exists due to firm rigidity. Infant and adolescent firms will likely attract and retain stakeholders when new venture leaders and their employees attempt to meet the individual needs and desires of customers for adaptations and customizations.

Conclusion

After reading Curt Reimann’s article in the Fall 2013 issue of the Mayberry Newsletter, I now have a better understanding of the importance of collaborating in the classroom, across disciplines, and across colleges at the University to highlight the importance of performance management. I hope this supplement to his thoughts provides you with some understanding related to what to consider when working with students, colleagues, and those you consult who are interested in problem solving in a context where resources are limited and collaboration among employees may not be feasible. By minimizing the malevolent characteristics of newness, while working to maximize the benevolent characteristics of newness, new ventures may be able to achieve high levels of performance; but, only after the recognition of the importance of these organizational characteristics.



* Brian Nagy is a faculty member in the Department of Decision Sciences and Management in the College of Business. His teaching and research interests are in the areas of strategy and startups.

Thanks to Mayberry Graduate Assistants 1997-2016

Graduate assistants have played major roles in activities of the Mayberry Center. They have also served with distinction on the Board of Examiners of the Tennessee Center for Performance Excellence.

Brian Bowman
Nick Brown
Joe Chappell
Dan Cooper
Stephen Flatt
Justin Higdon
Tyler Hodge
Jonathan Huddleston
Cass Larson
Brad Leimer
Ryan Lisa
Cody McKinney

Troy McNatt
Chad Meador
Anna Mote
Brent Palk
Sandra Robbins
Matt Roberts
Jay Rudwall
Aasma Shrestha
Josh Simer
Ryan Swor
Dylan Vantine

Activities and Accomplishments 2015-2016

The following are the highlights of the activities and accomplishments of the Mayberry Chair of Excellence for 2015-2016

Curt Reimann –Chair holder, the Mayberry Chair of Excellence

- Served on NIST Standards Alumni Association Committees for Distinguished Alumni Selection, Program, and Orientation of new NIST employees.
- Renewed as Contractor and advisor to NIST's Manufacturing Extension Partnership (MEP) Program in areas of Center evaluation and research.
- Participant in the TTU iCube project on Building 21st Century Manufacturing Talent.
- Planned and organized (with Dr. Natarajan) the Mayberry Lecture, "Performance Excellence in Healthcare" by Dr. Don Lighter MD, MBA, March 17, 2016
- "The Role of Integrating Contexts in Business Education," Working Paper (with Dr. Natarajan)

Ramachandran Natarajan – Mayberry Professor of Management

- Publications
"Comparative Performance of Banks in India, World Finance and Banking Symposium, (with Ravi Jain) Hanoi, Vietnam, December 17-18, 2015 Published in conference proceedings. He also served as a discussant for a paper in the same conference
"Relationship between Operational Efficiency and Financial Performance of Indian Banks," (with Ravi Jain, and Bhinmaraya Metri). 46th National Annual Meeting of the Decision Sciences Institute (DSI), November 21-24, 2015 Published in the conference proceedings.
"Efficiency of Airlines in India,"(with Ravi Jain), Invited chapter in Best Thinking in Business Analytics, Edited by Merrill Warkentin, pages 91-110. A Pearson/FT and DSI Publication, 2015.
- Organized and participated in the workshop on Assurance of learning at ISDSI (Indian Subcontinent Region of Decision Sciences Institute), Goa, India, January 2016.
- Planned and organized the Lunch and Learn workshop on Remote Proctoring Tools and Advisement Tools, Fall 2015.
- Serves as the Associate Dean and AACSB accreditation coordinator of the College of Business. Serves on several committees in the College. He chairs a TTU compli-

ance committee for Southern Association of Colleges and Schools (SACS) accreditation reaffirmation.

- Served on the team that organized the symposium "Global Issues in Healthcare" for the 2016 Window on the World international festival, April 8, 2016. Physicians from Cookeville and Faculty from TTU's Whitson-Hester School of Nursing served as panelists.
- Served as the VP of Beta Gamma Sigma, assisting in organizing the induction ceremony and the banquet.
- Serves as VP for Planning for the Indian Subcontinent Region of Decision Sciences Institute.
- Serves on the Boards of the Upper Cumberland Chapter of APICS and the Tennessee Rehabilitation Center.

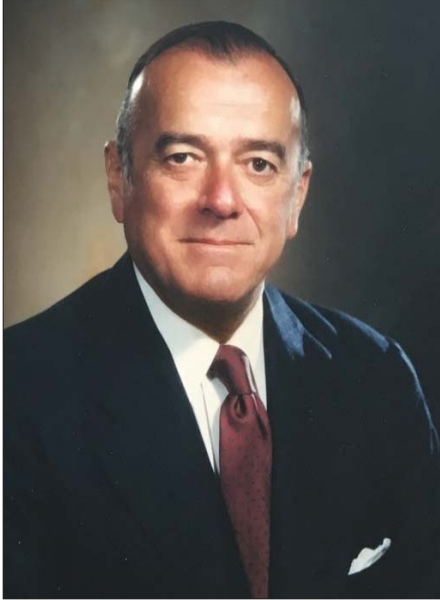
Anna Mote - Mayberry Graduate Assistant

- Served on the 2015 Board of Examiners of the Tennessee Center for Performance Excellence (TNCPE). In April 2015, she attended the Quest for Excellence conference in Washington D.C



COB Students enjoying a light moment with Dean Thomas Payne.

Remembering Dr. William E. Mayberry



Our Mayberry Center team mourns the passing of Dr. Mayberry.

Dr. Mayberry was a distinguished physician, research scientist, and administrator. He served as President, CEO, and Chair of the Board of Governors of the World renowned Mayo Clinic. In these roles, he led Mayo Clinic through a period of significant growth, establishing Mayo Clinic sites in Florida and Arizona, and other developments. Prior to these roles, Dr. Mayberry was chair of Mayo's Department of Laboratory Medicine and Professor of Laboratory Medicine at the Mayo Medical School.

Dr. Mayberry served in the U.S. Navy, Underwater Demolition Team.

Dr. Mayberry was a graduate of TTU in 1947 and of the University of Tennessee School of Medicine in 1953.

Those of us who have been part of the Mayberry Center services since 1996 are truly honored to have served in his name. We share the sorrow of the Mayberry family and extend our best wishes.

Newsletter prepared by Ramachandran Natarajan and Curt Reimann. It is also available on the Mayberry website: www.tntech.edu/mayberry Your comments are welcome.

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