Roundtable Meeting TakeAways

The November Roundtable meetings in recent years have been devoted to providing progress reports to HSATM Partners on selected research being conducted at the Howe School. At this meeting we heard from Professors Lombardi, Patanakul, Lynn, and Bullen. Brief summaries are provided below; the speakers' slides are posted on the HSATM web site at http://howe.stevens.edu/research/hsatm/past-events/2009-roundtable-nov

Selected Faculty Research Presentations
Wednesday, November 18, 2009

Social Networking as a Tool in Education and Organizational Development

Drs. Donald Lombardi
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Lombardi and Ben Zvi are studying how social networking can act as a primary education tool and catalyst in progressive organizational development. Their focus is on teaching the emergent work force population the ways in which organizations – specifically community-driven organizations in healthcare and human services – conduct their business, using an array of technology-based communication devices ubiquitous in adolescents' daily lives. In addressing both the manner in which this focus population learns about potential career paths, as well as why a formidable deficit of knowledge about healthcare and human services careers exists, the objective of this effort is to provide a new system, using current and emergent social networking technologies, for meeting the gaping needs of work-force shortages in these critical areas.

Their research, which received seed funding from an HSATM grant in 2009, is titled "Innovating an Objective-Driven Social Network Learning Game Simulation to Develop Future Healthcare Leaders." The framework for their research was presented, along with the strategy for moving forward.

Overview of the Problem: American healthcare suffers from human capital deficits in virtually every leadership area, from medicine to finance, nursing to community relations, and business operations to rehabilitation services. Most high school and college students believe that the only people who work in healthcare are physicians and nurses; as a result, there is a dire lack of interest, and subsequently a paucity of professional talent, at the entry level of healthcare management and leadership.

Solution Synopsis: Our target group— adolescents of both genders between the ages of 12 and 20 – almost universally enjoys sophisticated, interactive computer games, and more importantly, are more adept at computer-assisted instruction than any previous generation. The development of an interactive video game which provides instruction on the careers in healthcare, potential career and educational pathways, and engaging social leadership situations, can help inspire interest and practical application learning in this important sector of the US economy.

Proposed Program Components:

- Research and development of a simulation/case study

- Production of a video interactive platform game

- Conduct of the simulation with three groups (high school, vocational school and college students).

While focusing on healthcare, this project clearly has relevance to other industries as well, since it relates broadly to organizational development, human capital, and technology.

Key Determinants of Effectiveness in Project Portfolio Management

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Although project portfolio management (PPM) has been practiced for decades, many organizations still struggle with the effectiveness of their PPM processes. Many do not define what PPM effectiveness is, and not much research has been conducted to provide guidance. Measurements of PPM effectiveness have yet to be developed and key factors contributing to PPM effectiveness have yet to be identified. The lack of such guidance may have practitioners continuing with PPM approaches that may not have the desired impact on business results.

The objective of this research, which began with an HSATM seed research grant in 2008, is to investigate the PPM practices of organizations in different business contexts in order to discover the key determinants of, and the measurement of, PPM effectiveness. This research will go beyond traditional PPM research by investigating the potential impact of executives' strategic decision-making processes and organizational factors (e.g. organizational culture, degree of portfolio centralization, and PPM learning and education) on PPM effectiveness. The results should help practitioners implement PPM practices appropriate for their business

contexts, cultivate PPM effectiveness, and measure such effectiveness.

Preliminary findings from study of a major telecommunications company indicate that a formal and information-based strategic planning and strategic decision-making process has an impact on PPM effectiveness. Objective-oriented executive governance based on measurable strategic outcomes is also important. Give & take, trust & honesty, and extensive communication are the important cultural values that are shared across the organization. Project selection and resource allocation are unbiased and strategy-based. The company also has a structure that supports project management and has formal project management and documentation processes that support communication and timely-decision making. These factors impact PPM effectiveness and in turn, a company's performance.

Keys to Creating Technical "Blockbusters"

Dr. Gary S. Lynn
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Gary Lynn has spent a decade researching the critical practices for creating blockbuster new products. The term "blockbuster," as used by Lynn and his co-author Dick Reilly in their book "Blockbusters: The Five Keys to Developing Great New Products," refers to those new products and services that alter the future of a company, lead to entirely new families of products, or possibly even usher in a whole new industry. When last reported on to HSATM Partners in 2003, the research embraced some 700 new product launches. The data base has since been expanded to over 1,000 new product/service teams and includes some of the most successful products ever launched, including the Nintendo Wii, IBM PC, Black & Decker Dustbuster, Polycom Soundstation and many others.

The earlier research found that five critical practices determined success in coming up with blockbuster new products:

• Clear and stable "Project Pillars:" Blockbuster teams stayed on course by following a clear vision of the product attributes – specific goals for the product, including time targets – which the team had to deliver. These were defined early on by senior executives and/or team members.

• Improvisation: Blockbuster teams did not follow a structured path to market, such as a stage-gate process. Instead, they were flexible, trying many different ideas, getting prototypes out to customers quickly, and iterating to reflect feedback until they developed a version that "stuck" with their customers.

• Effective information exchange: Teams used many formal and informal methods to exchange information, including frequent video conferencing and use of "war rooms" papered with Post-it notes.

• Collaboration under pressure: Blockbuster teams focused on goals and objectives, as opposed to interpersonal differences. They were not especially concerned about building friendships, but they built coherent teams.

• Senior management involvement: The project team had the full cooperation of the highest level of management. Senior managers were involved intimately with every aspect of the project, or they made it clear by their actions and their "management by walking around" that they were fully behind the project, and then empowered the team with the authority it needed.

Doing all five practices well was critical to successfully creating a blockbuster. The five essential practices were present at high levels on the blockbuster teams, and at relatively low levels on the teams that were unsuccessful or only moderately successful. Although time did not permit discussion, the last five slides of Gary's presentation
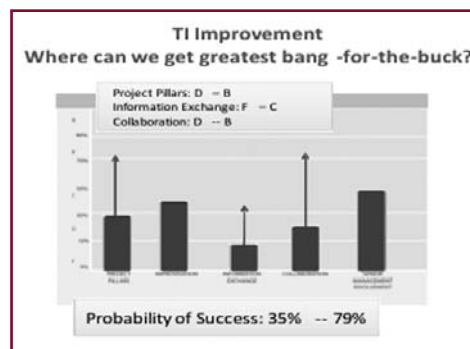
reviewed the importance of the five practices and how firms could get the greatest "bang for the buck" in improving their technical innovation.

Gary discussed how the technological innovation process progresses through several phases: Invention, Exploration, Focus,

Traction and Leverage. Based on his studies, Gary presented "Zones of Acceptability" for successful innovations, in terms of time and money spent as a function of time. By applying such benchmarks, he concludes that the innovation process can be managed to a reasonable timetable, and this timetable can be estimated at project outset.

Workforce Trends in Information Technology

Dr. Christine Bullen
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Chris Bullen has been a member of the IT Workforce Research Team, an ongoing research project sponsored by the Society for Information Management (SIM). The research seeks to define the IT skills and capabilities that organizations desire to retain in-house, source externally, and acquire in entry and mid-level hires. This research involved over 230 organizations from around the globe and focuses on IT workforce trends and how they are affected by such forces as global sourcing, pending baby-boomer retirements and low enrollments in IT-related university programs. The first phase focused on clients (those buying services) and the second focused on providers (those selling services).

The presentation discussed a number of issues that came out in the research, issues that are sometimes conflicting and often controversial:

1. The increasing trend toward global sourcing of IT work

2. Distinct differences in the capabilities retained internally and sourced externally by firms

3. Mismatches between client needs and provider resources

4. A consistent desire for non-technical, as well as technical capabilities in new hires

5. Disappointment that graduates are often missing skills desired most in the marketplace

6. A lag in university responsiveness to the needs of the marketplace

The conclusion is that a set of requisite skills – including not only foundational technology skills and project management capabilities, but also business and relationship-management capabilities – are emerging that all IT

professionals will need for a successful career, whether employed by clients or providers and regardless of geography. Previous research has characterized the person possessing this pattern of skills as a T-shaped person – someone with a set of skills in an area of deep specialized knowledge, as well as a set of broader, generalized business skills.

While conducted around IT, this research has broad applicability to other functions. The need for T-shaped people applies to any functional area, e.g. finance, marketing, R&D, in view of the complexity of managing in today's fast-changing world. Specialists have less value to organizations than those who combine general business knowledge with their areas of specialization. Organizations are relying on every manager to contribute to the competitive success of the firm, and that requires a broad set of skills. In the IT area this represents a fundamental change in what it takes to succeed. ■

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