Role of Management and Technology in Bridging the Skill Gap of An Employee

Vijay kumar Thota

Faculty, Department of commerce & Business Management, University College of Arts, Social sciences and Commerce, Satavahana University, Karimnagar-505001

ABSTRACT *The present study aims to explore the role of management and technology in bridging the skill gap of an employee because the human resource department plays very important role in organizations now days. Organizations and their environment have changed dramatically over the past years. These changes have altered the concept of career and have contributed to the development of new models for skill based career management. The impact of the skills gap is far reaching and varied, with effects on global economics, human capital development, and business performance. In advanced economies, skill imbalances will lead to more long-term and permanent joblessness and a greater polarization of incomes between high- and low-skilled workers. Developing economies likely will slow their climb into higher value-added industries and see millions of low-skilled workers trapped in subsistence agriculture or urban poverty.*

The paper at hand presents the issues regarding high unemployment and a shortage of skilled talent sound like contradictory concerns, yet they are co-existing realities for the present workforce. In this research study aims to present action plans by the organizational leaders should look to their learning professionals to help identify the skills and competencies needed now and in the future and to align their development to key drivers for the organization.

INTRODUCTION:

Management issues are fundamental to any organization: how do we plan to get things done, organize the company to be efficient and effective, lead and motivate employees, and put in place control to make sure our plans are followed and our goals are met. Good management is basic to starting a business, growing a business and maintaining a business once it has achieved some measure of success.

What is Management?

"Management is the organizational process that includes strategic planning, setting objectives, managing resources, deploying the human and financial assets needed to achieve objectives, and measuring results. Management also includes recording and storing facts and information for later use or for others within the organization. Management functions are not limited to managers and supervisors. Every member of the organization has some management and reporting functions as part of their job." (Knowledge Management Terms, 2009)

Technology Management:

Technology management is set of management disciplines that allow organizations to manage their technological fundamentals to create competitive advantage. Typical concepts used in technology management are technology strategy (a logic or role of technology in organization), technology forecasting (identification of possible relevant technologies for the organization, possibly through technology scouting), technology roadmap (mapping technologies to business and market needs), technology project portfolio (a set of projects under development) and technology portfolio (a set of technologies in use). The role of the technology management function in an organization is to understand the value of certain technology for the organization. Continuous development of technology is valuable as long as there is a value for the customer and therefore the technology management function in an organization should be able to argue when to invest on technology development and when to withdraw.

Technology Management can also be defined as "the integrated planning, design, optimization, operation and control of technological products, processes and services, a better definition would be the management of the use of technol-

ogy for human advantage".

The Association of Technology, Management, and Applied Engineering defines Technology Management as the field concerned with the supervision of personnel across the technical spectrum and a wide variety of complex technological systems. Technology Management programs typically include instruction in production and operations management, project management, computer applications, quality control, safety and health issues, statistics, and general management principles.

What is skill gap?

ASTD defines a skills gap as a significant gap between an organization's current capabilities and the skills it needs to achieve its goals. It is the point at which an organization can no longer grow or remain competitive because it cannot fill critical jobs with employees who have the right knowledge, skills, and abilities. It is not just individual organizations or sectors that are feeling the consequences of the skills gap. Communities, states, regions, and entire nations pay a heavy price when they cannot find or equip workers with the right skills for critical jobs.

The McKinsey Global Institute June 2012 report, The world at work: Jobs, pay, and skills for 3.5 billion people, predicts a potential shortage of 38 to 40 million high-skills workers in 2020 (13 percent of the demand for such workers) and 45 million middle-skills workers (15 percent of the demand). Low-skills workers will be in least demand at 10 percent, a shortage of 90 to 95 million. On a national level, the state of employment continues to play a major role in the United States skills scene. At 8.3 percent in July 2012, the unemployment rate has gradually decreased during the past three years after hitting 10 percent in October 2009. While the number of unemployed workers remains fairly high, the number of job openings is on the rise, with 3.8 million in June 2012, compared to 3.1 million in June 2011. Despite a large pool of unemployed workers, employers continue to struggle to find skilled talent to fill the growing number of job openings in the country.

Impact of skill gap:

The impact of the skills gap is far reaching and varied, with

effects on global economics, human capital development, and business performance. In advanced economies, skill imbalances will lead to more long-term and permanent joblessness and a greater polarization of incomes between high- and low-skilled workers. Developing economies likely will slow their climb into higher value-added industries and see millions of low-skilled workers trapped in subsistence agriculture or urban poverty.

As far as bottom-line impact, many industries feel the effects of a skills shortage in similar ways. CompTIA's State of the IT Skills Gap report notes that 80 percent of information technology employers indicate that their industry's skills gaps affect at least one business area, such as staff productivity (41 percent), customer service/engagement (32 percent), and security (31 percent). Workforce shortages and skills deficiencies in production manufacturing roles are significantly impeding the sector's ability to expand operations and improve productivity.

The role of training and education:
High unemployment and a shortage of skilled talent sound like contradictory concerns, yet they are co-existing realities for the 2012 workforce. MHC suggests a cause for this conundrum, and a solution: "The low levels of employment during the recession actually may mask the way that changes in the industry, especially the growing green job market, require new skills and better training. Certification of employees is one effective way in which the industry can respond to these rising needs." As high-skills jobs become more specialized, earning certifications is a viable solution for educated workers to hone their existing knowledge.

Anthony Carnevale, Nicole Smith, and Jeff Strohl of Georgetown University's Center on Education and the Workforce believe that, due to growth in technology across many business segments, workers require more post-secondary development for success in today's workforce. They define post-secondary education as two- and four-year education institutions, employer-provided formal training, and employer-provided informal training. In Help Wanted: Projections of Jobs and Education Requirements through 2018, the authors predict that—in its current state—post-secondary education will under-supply candidates for 3 million jobs by 2018.

However, formal post-secondary education is not the best skills development solution for all job openings. The Bureau of Labor Statistics reports that eight of the 10 top growing occupations through 2014 do not require a bachelor's degree. Instead, skills certificates, on-the-job training, and apprenticeship programs are relevant and practical methods for developing middle skills. In its June 2012 report,

Let's Get Serious About Our Nation's Human Capital, the Center for American Progress claims that the United States needs to help an additional 1 million low-skills workers per year earn associate's degrees, technical certificates, or industry-recognized credentials to close the projected shortfall in middle-skills workers. Of course, the onus for developing the skills necessary for the future workforce is not on the employer alone. The Skills Gap: Reversing Washington's Lack of Skilled Workers Through Early Learning makes a case for education reform beginning with early learning: "Education reform must occur if we are going to prepare young people to enter the workforce with the skills and education businesses will require. But we must understand that education reform cannot only be limited to K–12 and post-secondary education. Quality early care and education is the foundation upon which success in school and later in the workforce is built. Policy-makers and the public must shift their thinking and incorporate early learning in any education reforms our country implements."

Employee Development & Training:
The challenges associated with the changing nature of work and the workplace environment is as real for the campus as elsewhere. Rapid change requires a skilled, knowledgeable workforce with employees who are adaptive, flexible, and focused on the future.

As a manager, one of your key responsibilities is to develop your staff. The Philosophy of Human Resources Management (Appendix B) states that you can: "Encourage growth and career development of employees by coaching, and by helping employees achieve their personal goals at UCSF and beyond...[you can develop] human resources by providing adequate training... encouragement of staff development, and opportunities for growth."

The campus recognizes that employee development requires a shared responsibility among the institution, you, and the employee. In this partnership:

The institution ensures that policies and programs facilitate the continuing development of staff

You Work with staff to: assess and provide feedback on their skills and interests; select training and development activities that match their career development objectives and job needs; use the Development & Training catalog as a tool to tell employees about training and development opportunities on campus and to create an annual development plan; stay informed of current policies and practices that support employee development; follow up with employees after a learning activity to integrate new skills and knowledge into their responsibilities

The employee Takes initiative to assess skills and interests and seek development activities that match needs; works with you to identify training and development objectives

Most employee development and training programs fall under the following categories:

- Management Development;
- Career Development;
- Basic Skills;
- Professional Skills;
- Technical Training;
- Supervisory Skills

Your support of training and development creates a "Win" for the employee and for your work place. You will have:

Employees with upgraded skills, working to their full potential and equipped to deal with the changing demands of the workplace; employees with higher morale, career satisfaction, creativity, and motivation; increased productivity and responsiveness in meeting departmental objectives

- Career Development
- Management Development
- Other Resources

An action plan to take charge of the skills gap:
Organizational leaders should look to their learning professionals to help identify the skills and competencies needed now and in the future and to align their development to key drivers for the organization. The following action plan identifies six steps for taking charge of skills gaps.

1. Understand the organizations or unit's key strategies, goals, and performance metrics:
- Be sure you know the answers to the following questions and can articulate the connection between performance goals and employee capability.
- What factors in the economy, culture, or market most influence your organization?
- What are the organization's key strategies and goals, and performance metrics for those?

- What business functions have the most impact on the success of the organization?
- What capabilities must employees at all levels have to be able to meet the performance metrics?
- How robust are the HR systems and reporting capabilities for monitoring performance, business results, and employee capabilities?
- How is the organization's business and leadership model communicated throughout the organization?
- How engaged and committed are the organization's leaders to tackling this challenge through an investment of people, processes, and systems?
- How are the demographics of the organization's workforce changing, and what impact will they have on knowledge, skills, and behaviors?
- What is the state of the supply chain of talent for the business or industry, given specific strategies?

2. Identify competencies and skills that map to strategies and performance metrics:
- Identify the core competencies for the organization's workforce and business unit most critical to the organization's success.
- Identify current needs as well as those for the next one to three years.
- Working with leaders of core business functions, determine which skills and competencies their employees need to be able to meet key goals and be effective at implementing key strategies.
- Map current and future competencies to current and future strategies and goals.
- Identify the priority job(s) to develop the functional competencies required for job success.
- Identify which skills and competencies are required for meeting desired performance standards, in what time frame, and how they will be measured

3. Assess the skills gap:
- Define the scope of how the organization will address the gap (organization, division/unit, or individual), and consider starting with one function or business unit as a pilot.
- Use analytical tools, such as impact mapping, to identify performance behaviors required to meet specific goals.
- Conduct a capability audit to determine where gaps exist in employees' knowledge, skill, or behavior.

4. Set goals and prioritize the path to filling gaps:
- Establish baseline measures of employees' current skills.
- Set goals for closing gaps between existing skill sets and those needed to support current and future goals.
- Determine which paths to take to fill particular gaps: outsourcing, hiring, training and development, coaching and mentoring, and so on.
- Determine how results in filling skills gaps will be measured.
- Create an internal communication plan to educate and involve managers and employees in programs to close skills gaps

5. Implement solutions:
- With key leaders in the organization, prioritize solutions

and secure funding and resources needed to do the work.
- Connect with your local Workforce Investment Board (WIB) to identify opportunities to partner, and to access training funding that can assist your organization in addressing skills gaps.
- Led by the organization's learning function, create an organization-wide plan to address skills gaps.
- Prioritize what the organization can implement and sustain, even if there are disruptions, changes, and challenges to the organization.
- Ensure there is senior leadership buy-in and engagement in every step of implementation and communication, and that they are participating as teachers.
- For identified knowledge or skill gaps, create learning and development opportunities using appropriate delivery options and leverage all forms of learning: formal, informal, and social.
- Create individual learning plans and paths for employees. Have systems in place to measure and document skills and competencies before, during, and after training and development. Link all learning and development goals to the organization's skill needs and priorities.
- Have a balance of quick wins, medium-term successes, and longer-term development so that measurement of success can begin immediately. Look for both leading and lagging indicators.

6. Monitor and measure results and communicate the impact:
- Be prepared to demonstrate how closing the skills gap has increased organizational performance, while improving productivity and reducing costs.
- Ensure the measures are truly aligned with the organization's measures of success.
- Use assessment tools to measure progress before and after learning and development takes place.
- Identify a successful stakeholder work with that person to communicate the results.
- Communicate progress and results regularly to all stakeholders.

CONCLUSION:
Technology management is set of management disciplines that allow organizations to manage their technological fundamentals to create competitive advantage. In advanced economies, skill imbalances will lead to more long-term and permanent joblessness and a greater polarization of incomes between high- and low-skilled workers. The challenges associated with the changing nature of work and the workplace environment is as real for the campus as elsewhere. Rapid change requires a skilled, knowledgeable workforce with employees who are adaptive, flexible, and focused on the future. Organizational leaders should look to their learning professionals to help identify the skills and competencies needed now and in the future and to align their development to key drivers for the organization.

REFERENCE Reports: skills- based change management; skills measurement reports, December, 2002. | Big Five personality traits. (2009). Retrieved November 2, 2009, from Wikipedia: | Carter McNamara, M. P. (2009). Very Brief History of Management Theories. Retrieved November 5, 2009, from Free Management Library: | Cengage, E. M. (2006, November 2). Management Functions: Encyclopedia of Management; Retrieved November 2, 2009, from eNotes.com: | Clark, D. (2000, April 2). Hawthorne Effect. Retrieved October 28, 2009, from Big Dog & Little Dog's Performance Juxtaposition: | Gale, T. (2006). Contingency Approach to Management. Retrieved November 3, 2009, from BookRags: | George, G. R. (2009). Contemporary Management (Sixth ed.). (B. Gordon, Ed.) New York, NY, USA: McGraw-Hill/Irwin. | Hahn, M. (2007, May 6). Administrative Theory. Retrieved October 25, 2009, from ArticlesGratuits.com: | Knowledge Management Terms. (2009, January 20). Retrieved November 2, 2009, from Stuhlman Management Consultants : http://home.earthlink.net/~ddstuhlman/defin1.htm | Lewis, J. J. (n.d.). Mary Parker Follett. Retrieved October 27, 2009, from About.com: http://womenshistory.about.com/od/business/p/m_p_follett.htm | McMahan, P. M. (1992). Theoretical perspectives for strategic human resource management. Journal of Management . | Mendham, T. (2008). Time & Motion Studies. Retrieved November 1, 2009, from Horology-Stuff: http://www.horology-stuff.com/more/time-motion.html | Personal Challenges for Global Managers. (2009). Retrieved November 2, 2009, from CliffsNotes.com: http://www.cliffsnotes.com/WileyCDA/CliffsReviewTopic/Personal-Challenges-for-Global- Managers.topicArticleId-8944,articleId-8939.html |