

# ROLE OF TOTAL QUALITY MANAGEMENT IN STRENGTHENING ACADEMIA-INDUSTRY INTERFACE

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## Abstract :

Universities and industry, which for long have been operating in separate domains, are closer to each other to create synergies. Growing complexity of the business environment today has necessitated these two to come closer. Higher education institutions not only contribute skilled human resources to business, but also in various intangible ways. The intersecting needs and mutually interdependent relationship requires identifying means of further strengthening academia-industry partnerships.

This paper attempts to explore how institutes of higher education can work closely with industry, and identify possible areas where industry's contribution to academia would be most effective. This study is based on secondary data relating to industry academia interactions .

**Key words:** higher education, academic standard, work place standard, TQM, Quality school

## Introduction :

The competitive business world and the rapidly developing knowledge based service economy have put in an increased demand for professionals to manage the business effectively. This has created a need for technical and management education.

Growth of economy depends on the productivity of the industries. For increase in productivity knowledge of workers in the industry plays a crucial role. In such a scenario a *knowledge worker* who can work at the cutting edge of technology, add value to the bottom-line, and provide competitive advantage to industry has become a hot commodity to acquire.

The higher education systems consisting of universities, engineering and management institutes play a pivotal role in developing the knowledge of the worker by providing the necessary education. Industry being in a competitive environment goes on exploring new technologies for improving productivity. In such a scenario there is requirement of integrating industry requirements in academic curriculum.

David Warsh, the chronicler of this new movement in the academic study of economics, puts it directly:

Take a look at any map. The places with universities are the ones that have remained on top or renewed themselves around the world. That knowledge is a powerful factor of production requires no more subtle proof than that

**What Are Academic Standards? :** Academic standards describe the knowledge and skills that students should acquire while in traditional academic disciplines.

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**What Are Workplace Skill Standards?** : Workplace skill standards define the knowledge and skills required to work successfully in a particular field or occupation. Their focus, however, is not on learning academic disciplines, but rather on using academic and work-based skills and knowledge to meet the demands of occupations or industries.

### **Why Coordinate Academic and Industry Skill Standards :**

- Four broad arguments for better coordination between academic and technical skill standards.
- First, educators, policymakers, and employers have emphasized the value of creating stronger connections between academic and vocational education for several years. Integrated skills are needed in new, more demanding workplaces and provide better pedagogic and social opportunities for all students and educators.
- Second, research has increasingly shown that relating learning to work can strengthen academic learning by giving a coherence to academic studies that is difficult to create when subjects are taught independently or in the abstract.
- Third, given that the workplace now demands better academic skills across all occupations, increasing the rigor of academic preparation for all students is especially important.
- Fourth, by working together, academic and vocational educators and employers can strengthen both sets of standards.

At the same time that educators often do not possess a strong understanding of the workplace, employers and workers are not in the best position to evaluate the academic content of the skills they need. A strong working relationship between educators and employers in developing skill standards eliminates potentially misleading messages delivered through standards.

### **The Current State of Coordination :**

Although slowly beginning to change, academic and industry skill standards have been developed largely in isolation from each other. To be sure, most industry skill standards make references to academic standards and most of the academic standards call for some types of work applications. In general, however, the workplace applications offered by the academic skills are rarely explicit. Students are sometimes offered ad hoc or isolated examples of applications, but they can meet the academic standards without necessarily being able to apply their academic skills to realistic work-related problems. Similarly, industry skill standards often include academic standards but do so as abstract lists of skills that are left unconnected to their use in the workplace. The required performance levels of both academic and industry-related skills also needs much more attention. Even though there is a broad-based consensus that standards need to be set at a high level, most of the academic standards offer no absolute normative benchmarks against which to measure student performance.

Most of the academic standards were set by educators based on their judgment about what students should know, usually to proceed to the next level of education. These judgments were not based on objectives from outside the disciplines or the education system. While the industry skill standards do call for academic skills, those academic standards were usually set very low. For the most part, the academic component of the industry skill standards call for skills that can be achieved well short of high school graduation. Employers, however, may not understand the advanced academic skills that their standards require. This lack of understanding and the potential for misrepresented academic skills further supports the need for collaboration with educators so that actual academic competence can be determined.

### Need for Academia-Industry Interface :

Academia- Industry Interface could be defined as interactive and collaborative arrangement between academic institutions and business corporations for the achievement of certain mutually inclusive goals and objectives. Traditionally, institutions were looking for placements and internships for their students and the industry for fresh recruits who are well trained and equipped with the right knowledge, skills and attitude to be able to contribute to organization's growth. Bisoux (2003) has explored the relationship between academics and industry. He says that corporations are placing growing emphasis on finding the "right person". It forces the higher education institutes to think more carefully on whom they hire, and therefore the role of industry in the entire academic model becomes important.

Today, the educational institutes have realized the importance of '*working closely with employers*' for the following reasons:

- Increasing complexity in academic and business world and constantly changing needs of the industry;
- Increasing criticality of human competence in creating and sustaining competitiveness of the organizations;
- Shift in management paradigm of business schools from earlier academic models to revenue based models. ;
- Growing competition for student placements and industry mind-share, with rapid increase in the number of colleges and hence the qualified graduates and post graduates.
- Growing pressure from industry to make their fresh inductees productive from day one to reduce the subsequent training costs. Greenberger (2001) is of the view that organizations today are looking for trained professionals and students capable of taking decisions. Some of the training in formative years comes out from business corporations, via collaborative internships with corporations to enhance learning opportunities to students.

### Modes of Interface :

In developed countries higher education institutions and systems are working to become key drivers of economic development and community revitalization. They are:

- Putting their research power to work by developing new ideas that will strengthen the country's competitive edge in the new economy
- and then by helping to deploy those innovations into commercial use.
- Providing a wide range of knowledge-focused services to businesses and other employers, including customized job-training programs, hands-on counseling, technical help, and management assistance.
- Embracing a role in the cultural, social, and educational revitalization of their home communities.
- And, most fundamentally, educating people to succeed in the innovation age

For the above reasons, Industry rather than just being the customers of educational institutes output today have become stakeholders and partners in progress. Industry on the other hand has also discovered the advantages of collaborative learning opportunities. Corporations seek to play increasingly important role in activities of academic institutions to incubate the talent they need. The shift towards the short-term performance metrics and shareholders interest has led to a number of changes in conduct of business, which has translated its effect on educational institutes.

Institutions and systems should advance innovation by — new technologies, new processes, new products, and new ideas— in their local and regional economies. This focus on innovation should make faculty and leaders think creatively about how to leverage their strengths in knowledge creation to yield tangible

economic benefits.

Higher education institutions and systems should pursue strategies to help employers prosper and grow. They should do this by deploying their strengths in knowledge transfer— through worker training, management counseling, help for startups, and other initiatives.

Higher education's most fundamental contribution to economic development lies in its traditional role: creating an educated population.

### **Finding a Common Ground for Combining Academic and Workplace Skill Standards**

The incorporation of skill standards into the school-to-work transition system requires the establishment of explicit connections between academic content standards and workplace skill standards through the following sequence of events:

1. Identify broad skills and competencies that cut across specific occupations or occupational groupings. In particular, identify the math, language, and reading skills that are needed for success in any career and build a basic curriculum that all students are expected to master. Identify which academic standards these skills and competencies address and when they occur in the curriculum.

2. Identify the advanced skills that cut across occupations within broad career pathways for inclusion in a career-oriented curriculum in secondary school. Identify the academic skills and competencies that these advanced skills address and at what grade level they are taught in the curriculum.

3. Work with the business and industry sectors to identify the practical skills that could best be learned in work-based experiences but which require instruction in the classroom first.

4. Within each occupation or occupational cluster, identify the practical skills that should be taught in post-secondary programs and the academic skills that are needed to reinforce those practical skills.

5. In the general curriculum, identify and include instruction, contexts, and problems from real work situations that can be used to demonstrate and teach general skills and knowledge. For the general curriculum, a wide variety of contexts should be used as a way to expose students to a range of careers.

6. Identify the work-related uses of knowledge and skills, including advanced skills, and incorporate these connections in classroom instruction.

7. Include instruction in basic workplace skills at the appropriate age and grade. For example, skills such as being on time, communicating, working in teams, wearing appropriate dress, and so on . These basic workplace skills can be reinforced through work-based learning experiences.

### **Strengthening Employers for Success and Growth**

Higher education institutions can play a vital role in strengthening local capabilities for innovation ... the ability to conceive, develop, and/or produce new technologies and services, to deploy new production processes, and to improve on those that already exist.

#### **Workforce Training :**

The most widespread, and arguably the most important, way in which higher education institutions help support the competitiveness and growth of employers in their communities is through worker training programs.

#### **Small Business Development :**

In an era in which small businesses across the country say that a critical problem is the difficulties they

face in getting bank loans or other capital, educational institutes should develop specific, separate training programs to help small investors understand how to set up, operate, and succeed. Also train small business owners how to find investors, understand their expectations, and meet their needs.

Beard (1994) has a number of recommendations towards increasing and enhancing academia-industry interface, which include:

- Greater degree of industry-school collaboration to integrate employer's needs into the programmes on offer;
- Real involvement with industry to allow students to gain valuable practical experience and also to facilitate development of business;
- Improve the programmes by encouraging the participation of a number of guest speakers who can offer their own practical experiences;
- Academic staff should be encouraged to keep their skills updated by undertaking practical consultancy on regular basis.

Educators are beginning to realise that current system of instruction do not encourage quality education. Many of them are now examining TQM as a possible philosophy to create schools of quality. Schools of quality are based on four fundamental assumptions:

- By customer-supplier focus
- By personal dedication by everyone to continuous improvement.
- By process/ system approach
- By consistent quality leadership

There are a number of avenues, through which educational institutes collaborate with industry. Some of the commonly used avenues are:

1. Guest Lectures by industry representatives.
2. Suggestions in curriculum and content designing.
3. Executive Education and Management Development Programmes.
4. Joint seminars by academia and industry both for executives and students.
5. Consulting on management and related issues by academia;
6. Academia generating ideas and acting as incubators to new business.
7. Inclusion of industry experts in governing councils and other board of studies.
8. Industry providing financial and infrastructure support to business schools for their development.
9. Funding academic and applied research.

### **Proposed TQM model to implement in higher education for successful Industry-Academia synergy :**

A proposed TQM model based on Four essential elements that must be leveraged if universities and systems, and higher education as an industry, are to fulfill their potential as engines of economic revitalization in communities are: leadership, flexibility, culture and resources.

#### **Leadership :**

It takes leadership to produce new directions and great results. Higher education itself has had numerous

pioneering leaders. It still does, and at multiple levels, not just the top. These are leaders with the vision to find a wider role for their universities, the ability to marshal support for that wider role, and the implementation skills to bring it to great results.

**Flexibility :**

Higher education institutions and systems also require some flexibility to work in collaboration with the private sector to create economic growth and revitalize their communities. A university is not just another government agency. Some rules on recruitment, purchasing, preapprovals and the like can prove a serious encumbrance when applied to a university that is trying to work with business to produce jobs.

**Culture :**

For institutions and higher education systems to embrace their responsibility for economic development also requires the right institutional culture. In the 1870s, John Bascom, president of the University of Wisconsin, declared that a university’s purpose was not only to educate citizens, but also to create and nurture new ideas, and to use its expertise to the direct benefit of society. Bascom’s approach came to be called “the Wisconsin Idea,” and ever since it has formed a key strain in the culture of many higher education institutions. university adoption of the new economic development paradigm could prove beneficial for faculty and students and business. It opens more opportunities for research funding for faculty and can add a practical element to student education in fields such as business, economics, engineering, and technology.

**Resources :**

Higher education needs the necessary resources for creating innovations. Particularly given the current recession and the extreme budget difficulties, solutions have to be found for the most important question of - How can universities and systems have to bear the cost of growing their research enterprise, or expanding job training, business assistance.

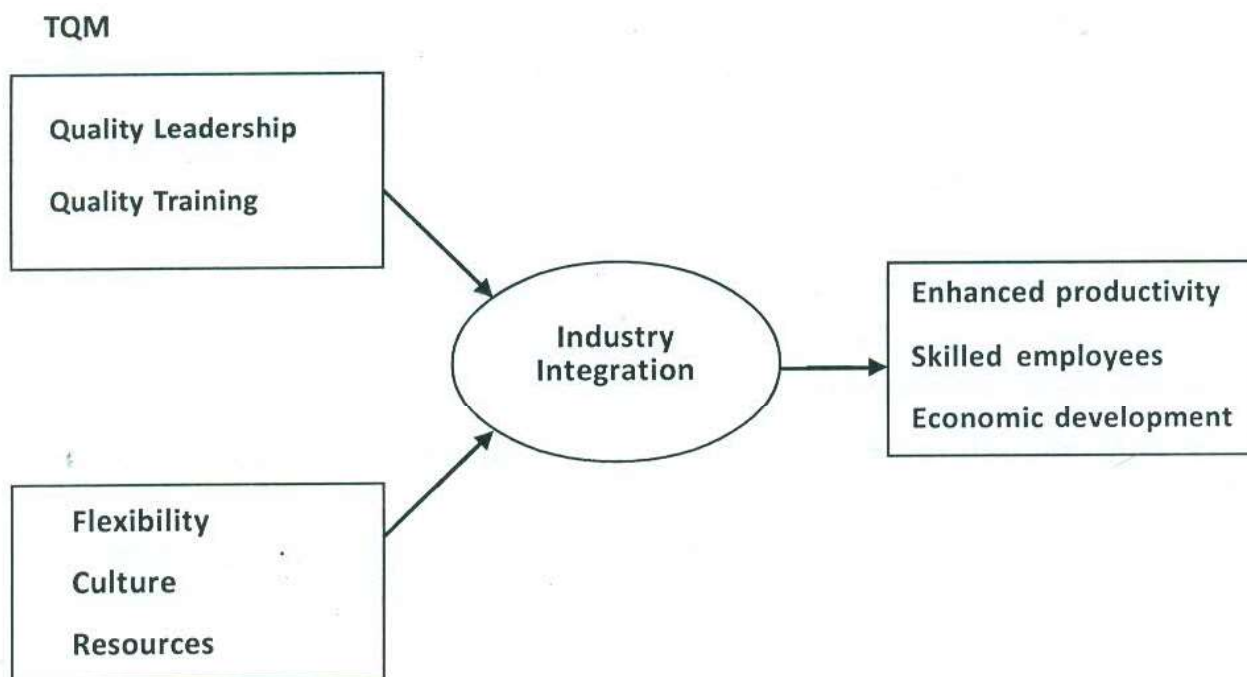


Fig 1. Proposed model of TQM in higher education for integrating with industry

## Conclusion & Recommendations :

It is imperative for business schools to bring Academia and Industry closer and build strong collaborative relationship;

Each education institution needs to identify the areas where they can build an effective academia-industry relationship. They need to revisit their mission and academic model to be able to identify the right Interface mix;

Academic institutes have to move beyond the phenomenon of 'working with employers' towards the concept of '*working with partners*'. The collaboration between the two is dynamic and complex. A synergistic relationship has to be carved between the business schools and the industry so that both can benefit and also contribute to enhancing the entire teaching-learning process.

## References :

Adrian S. & Matheson R.A, (1996) "Management Training- are business schools out of touch with their market?", Journal of European Industrial Training, MCB University Press.

Altbach Philip G., "*Higher education and WTO: Globalization Among*", International Higher Education no.3, The Boston College Center for International Higher Education.

Aggarwal A., Rizvi I.A & Popli S. (2004), "Global Branding of Business Schools: An Indian Perspective", Welinkars Research Journal, Volume II, Issue-4, pp 2-31.

Beard C., (1994) "Educating the star fleet captin-making business schools more relevant to their stakeholders:, Working paper, University of Paisley, June 1994.

Bhada Yezdi K. (2002), "*Top of the Class*", Bized November/ December 2002 AACSB Publication pp.22-27

Bisoux Tricia (2003), "*New Directions in Global Education*", Bized January/ February 2003 AACSB Publication, pp34-37

Bisoux Tricia (2003), "*B-Schools with Global Perspective*", Bized September/ October 2003, AACSB Publication pp 28-39

Byrne J.A, (1991) "*Back to School*", Business Week, October 1991, pp 94-9-39.

Byrne J.A (1993), "*Business Week's guide to the Best Executive Education programmes*", McGraw Hill, New York.

Conway Tony, Mackay Stephen & Yorke David (1994), "*Strategic Planning in Higher Education: Who are the customers*", International Journal of Educational Management Vol.8, No.6, MCB University press, pp. 29-36

Elliot, C.J., Goodwin J.S & Goodwin J.C., (1194) "*MBA programmes and business needs: is there a mismatch?*", Business Horizons, July-August 1994, pp 55-60.

Gleason Jan (2001), "*Living your Brand*", Communications and Advocacy for Colleges, Universities, Research and Related Organizations, Counselors to Higher Education and Public relations Society of America Vol 1 issue IV

Gray Brendan J., Fam Kim Shyam & Llanes Violeta A. (2003), "*Branding universities in Asian markets*", Journal of product & Brand Management MCB Up Limited, Vol 12 no. 2, pp. 108-120

Starkey Ken & Tempest Sue (2000), *"The World- Class Business Schools: A U.K Perspective"*, Council for Excellence in Management and Leadership.

Thomas Howard (2003), *"The myth of standardized Business Education"*, Bized September/ October 2003, AACSB Publication pp 40-49

Trank Christine Quinn & Rynes Sara L. (2003), *"Reclaiming Professionalism in Business Education"*, Academy of Management Learning and Education Vol.2 Issue 2

Weenen Hans van (2000), *"Towards a vision of a sustainable university"*, International Journal of Sustainability in Higher Education Vol.1 no. 1 MCB University Press, pp. 20-34

Wild ray (1995), *"The business school in a busy world"*, Management Decision, Volume 33, No. 9 MCB University Press, pp. 17-23.

