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With the support of

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Szerkesztőség

Szent István Egyetem

2103 Gödöllő, Páter Károly u. 1.

Kiadja a Szent István Egyetem

Felelős kiadó

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Technikai szerkesztő

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## **Foreword**

### **Tradition and Innovation – International Scientific Conference of (Agricultural) Economists Szent István University, Gödöllő, 3-4 December, 2007**

Tradition and Innovation – International Scientific Conference was held on December 3-6, 2007, in the frames of the anniversary programme series organized by the School of Economics and Social Sciences of the Szent István University. The aim of the conference was to celebrate the 50th anniversary of introduction of agricultural economist training in Gödöllő, and the 20th anniversary of the School of Economics and Social Sciences, which was founded in 1987.

The articles published in the special edition of Bulletin 2008 of the Szent István University were selected from the 143 presentations held in 17 sections of the conference and 30 presentations held at the poster section. The presentations give a very good review of questions of national and international agricultural economics, rural development, sustainability and competitiveness, as well as the main fields of sales, innovation, knowledge management and finance. The chairmen of the sections were Hungarian and foreign researchers of high reputation. The conference was a worthy sequel of conference series started at the School of Economics and Social Sciences in the 1990s.

## **Előszó**

### **Tradíció és Innováció – Nemzetközi Tudományos (Agrár)közgazdász Konferencia Szent István Egyetem, Gödöllő, 2007. december 3-4.**

2007. december 3-6. között a Szent István Egyetem Gazdaság- és Társadalomtudományi Kara (SZIE GTK) által szervezett jubileumi rendezvénysorozat keretében került megrendezésre a Tradíció és Innováció – Nemzetközi Tudományos Konferencia, amelynek célja volt, hogy méltón megünnepelje a gödöllői agrárközgazdász képzés fél évszázada történet elindítását, s ugyanakkor a Gazdaság- és Társadalomtudományi Kar 1987-ben történt megalapításának 20. évfordulóját.

A Szent István Egyetem által kiadott Bulletin 2008 évi különszámában megjelentetett cikkek a konferencián 17 szekcióban elhangzott 143 előadásból, illetve a poszter szekcióban bemutatott 30 előadásból kerültek kiválasztásra. Az előadások jó áttekintést adtak a hazai és nemzetközi agrárközgazdaság, vidékfejlesztés, a fenntarthatóság és versenyképesség kérdései mellett az értékesítés, innováció, tudásmenedzsment, pénzügy fontosabb területeiről is. Az egyes szekciók elnöki tisztjét elismert hazai és külföldi kutatók töltötték be. A konferencia a Gazdaság- és Társadalomtudományi Karon az 1990-es években elkezdett konferencia sorozat méltó folytatása volt.

Dr. László Villányi  
Dean / dékán



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## THE ENTREPRENEURSHIP MODEL OF BUSINESS EDUCATION: BUILDING KNOWLEDGE ECONOMY

SINGH, RAHUL – MISHRA, JITENDRA KUMAR – SINGH, MAHESH KUMAR

### Abstract

Business education around the globe is similar in one aspect that it needs to track the economic developments and train the students with the latest models of operations. The serious faces of the education institutions come only from the high standards of the research and percolation of the same to the community who are the party of interest i.e. teachers, students, recruiters, society in general and other utility terminals. A traditional way of discussion in the classroom with theoretical models and without cases of the real situations requires more time for tuning the managerial aspirants with the industrial dynamic equations. We study few successful models of education on different philosophies to train students for employment to global market, to domestic market, and to the market that is new to the economic developments. We also propose a model of business education that trains the mediocre minds to be the entrepreneurs and leaders of tomorrow.

**Keywords:** Economic Growth, Business Education, Entrepreneurship

### Introduction

It is generally accepted that innovation is a key requirement for economic success (Hamel & Getz, 2004; Audretsch, 2004; Dixon, 2000). Several times, innovation could not establish the scope of the positive and/or negative impacts of the outcomes. It has even been argued that the most dramatic examples of growth have been based on a platform of 'disruptive innovation' (Christensen, Johnson, & Rigby, 2002). However, tradition does not exclude the innovation from its understanding.

The engines of economic growth, for long, have been rooted to agriculture and manufacturing. The economic law has hovered around capital, raw material and labor. The traditional model has been replaced with new which may be understood as process of innovation. Labour has been replaced by human capital now. Traditionally known, economic advantage has become competitive advantage. Nevertheless, innovation is widely viewed as the core component of primary source of competitive advantage which promotes wealth creation (Christensen, Johnson, & Rigby, 2002; Calantone, Cavusgil, & Zhao, 2002). While much has been written on the role of innovation on economic growth, including the influential work of Schumpeter from the 1930's and 1940's, only recently has there been a compelling case made to argue that external environmental factors are at least as important as internal company factors in stimulating innovation.

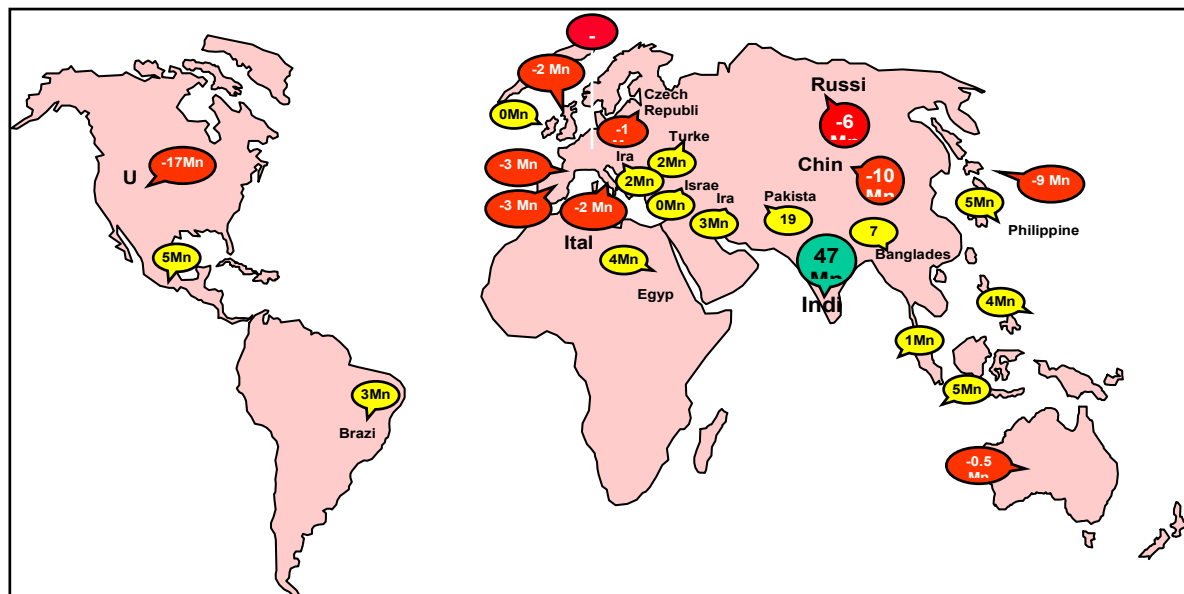
The parameters which determine national development have changed in recent years and will change further in future. The issues of competitive development includes some of the parameters like raw materials, capital including human, physical infrastructure, Know how and knowledge, leadership, and institutions of excellence. It is very much clear that the above 6 parameters have 3 related to higher education and researches. These parameters include a rapid rise in levels of education, high rates of technological innovation and application, ever faster and cheaper communication that dissolves physical and social barriers both within countries and internationally, greater availability and easier access to information, generation of newer opportunities at mass level through business models and the further opening up of global markets. These are indicated by the present shift of the economic variables shifting

from manufacturing to services; and from capital economic development to knowledge economic development. Technology, organisation, information, education and productive skills will, therefore, play a critically decisive role in governing the future course of development.

Over last few years, India, China, Ireland, Mexico, Brazil have emerged as one of the growing economies in the world, one of the countries producing employable manpower, and some of the economies that have potential to become the largest in few decades. Today the responses to the economy and society have changed the outlook of the country due to its education policy development recognizing the importance of knowledge revolution. If we want a high performance economy, we have to work now to improve strength, depth and adaptability of the colleges and universities. Facing the economic imperatives, some of the economies today, both developed and developing, are making an effort to develop powerful that would transform the education system and help the nation make the transition into today's economy by instilling in all eligible population the aspirations for education which develops their ability and skill to become employable.

The start of management education as a special training has seen progress in west specially in United States of America, which was followed by some European countries. The speed of acceptance of management education in different societies depends on professionalisation of management and global competitive challenges to the industries and traditionally family managed business (Chowdhary, 2002). The tradition has been replaced by innovation in terms of growth and commercial value to the growth. It has been, sometimes, misunderstood that the

**Figure:** The Future Demographic Map Potential surplus population in working age group (2020)



**Note:** Potential workforce surplus is calculated keeping the ratio of working population (age group 15 – 59) to total population constant and under the assumption that this ratio needs to be broadly constant to support economic growth. Therefore, India will have 47 Million more people in the working age group/total population by 2020 compared to today, while France will have a deficit of 3 Million people in the working age group compared to today.

Source: U.S. Census Bureau; BCG Analysis

The philosophy of management education in the west has been under the then industrial need that 'Organisations must survive and flourish under free competition resulting in only a few dominant organizations in each segment of the industry' and 'to serve the customers to the fullest of the satisfaction at the lowest possible price'. Since this was the first model of education, it translated the very requirement of skill development under the cultural and social behaviour of that region. It was primarily focused to increase the effectiveness and efficiency in the organization. The US model of business education was imported by many a countries in the same form without required changes. The question arises that how effective this imported model has been in other countries with a difference in economic and social conditions?

It is argued that the relationship between education and economic growth was weak in the older western countries specially in the USA and UK. Surprisingly, it was much stronger among the Asian Tigers. During the first wave of industrial development, the British and American had a competitive advantage which was faced by countries like France, Germany, Japan etc. that came up during second wave of industrialization in late nineties and early twenties. From handicrafts production to industrial forms of production, there has always been a critical optimization by a better human resource.

This increasing need of trained personnel and sense of competition motivated many a universities to improve upon business education to produce managers and to research for newer areas of economic progress and independence. Figure above indicates the future manpower supply which in turn helps the economic development.

'Globalization is the flow of technology, economy, knowledge, people, values, ideas.....across borders. Globalization affects each country in a different way due to a nation's individual history, tradition, culture and priorities' (Knight and DeWit, 1997). With the start of a new era of development, the business education started moving from only technical trainings in the class room to a mix of skill and business attitude development. Thus, the term has shifted its meaning from 'optimization of efficiency and effectiveness' only to 'leadership'.

World over, the phenomena of economic transition is taking place. West has been the start of it followed by part of Asian countries. It is now over a decade since the process of economic transition from the command economy model to market-oriented economic policies began in Eastern European countries. The resultant changes have affected every social and economic sector in these countries, and the region's technology industries have been no exception (Dyker, 1997). The economies, today, demand a very high caliber human resource in the country to meet the global competitiveness on sustainable basis. Much discussed and debated, the economy today is known as knowledge economy. Substantiality in Knowledge and Knowledge Management. Knowledge - is an important economic and organizational resource. The sustainable treatment of this resource includes instrumental, social and organizational aspects:

- Converting economic goals to knowledge goals
- Discharging obsolete knowledge
- Protecting and preserving of sensitive knowledge
- Identification and retention of human knowledge hosts
- Optimizing "Use of knowledge" infrastructure
- Externalization of tacit knowledge
- Offering incentives for knowledge sharing

Challenges facing higher education that require both a reassertion of traditional educational values and innovative approaches to special opportunities are considered. It is suggested that research universities find ways to reestablish the traditional ties across disciplines, to ensure that research in all disciplines contributes to educational excellence and the public good. An education that emphasizes the ability to think, evaluate, and understand ethical and social issues is needed by students. Universities, and especially research universities, must accept some of the responsibility for the current crises in precollege education since they train the teachers and set standards. Fulfilling the educational mission of turning out civic-minded, well-rounded students should be the domain of both undergraduate and graduate programs. Other issues facing research universities include: problems linked to defense-related research and industry partnerships that provide financial support; the orientation of these partnerships toward short-term results with immediate applications; and long-term research commitments made on the basis of federal funding. The changing demographics of higher education are also addressed. (SW)

### **The Economics of Concern**

Advanced economies are giving increasing attention to the direct contribution from university to industry competitiveness. As an important part of this trend a number of countries, influenced by the American Bayh-Dole Act of 1980<sup>1</sup> have been giving their universities a more active role in taking out the patents emerging from their active researches and in pursuing their commercialization. As expressed by some of the fastest growing states in the world which fuelled their economic growth by structuring their higher education policy “If we want a high performance economy, we must work to improve the strength, depth, and adaptability of our colleges and universities”. This has been the concern over the issues related to mutual working of Academia-Government-Industry in some of the best economies of the world such as USA, UK, Australia, Japan etc. in recent years countries like Singapore, China and union of countries, European Union have taken strong and firm initiatives to take these three important terminals together realizing that the higher education has become one of the pertinent variable of the economic growth and sustenance.

In an economy of transition such as Indian economy and also that Higher Education System being in the transition phase again, there are many issues unaddressed and left in gray areas. There are many debates over the utility and quality of the said variables from the respective terminals like academia, industry and government. Over all these years of development and un-systematic approach of academic development, academia has looked upon government and industry for support for all academic development issues and related, industry has looked at academia only as a feeder to its manpower requirement, and government has identified few institutions for funding at certain level and forget after a financial auditing of utility of funds and probably did not bother to have performance auditing of the investment.

This approach has not left the Indian higher education on a platform where it has credentials to grow and foster itself. Time has come that there is a coordinated effort made to improve

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<sup>1</sup> Starting in late 1970s and early 1980s, technology transfer and commercialization of university and laboratory research gained increasing attention and led new legislation. Bayh – Dole Act 1980 accelerated technology transfer from universities to the private sector. This statute established a uniform invention policy that permitted universities in USA to retain title to inventions developed through funded researches, and it encouraged universities to collaborate with industries and government agencies in promoting the commercialization of inventions.

upon the circumstances and avoid future uncertainties. The present education system has given sufficient, however it is important that it realizes the weak points and follows the corrections before it loses the position of being one of the innovative and strong human resource pool, which also has capacity to supply around the world. Direct relevance comes from the users of the output. The users for academic output resources are industry, government, society etc and many other indirectly. Below is a matrix giving core of academic and industry characters. This is one of the important ingredient for reasons of higher education success along with its intellectual capacity enhancement. If utility factor is not increased for most of the facets of the society and economy, this would not be able to provide the socio-economic development together. In brief, the business education or an education providing an opportunity to work in administration or management must respond to the needs of the economic and social development.

**Table:** Difference in perception of University and Industry

Characteristics	University	Industry
Values	Altruistic, scientific	Business, commercial
Activity	Generation and dissemination of knowledge and ideas	Application of knowledge for economic gain
Objective	Excellence in academic	Customer satisfaction, Profit
Role	Academic philosophy requires keeping up with theory and applications	Corporate philosophy involves continual improvement and greater efficiencies through new products and services, new design and manufacturing processes, innovations, software development.
Motivation for learning	Knowledge for its own sake; continuous learning to Upgrade knowledge	Need-based; learning as necessary
Horizon	Long-term	Short-term
Output	Academic degree, publications, patents	Cost-effective quality product and processes
Openness	Keen to publish results expeditiously	Keen to keep know-how proprietary
Attitude	'Holier than thou'	'Out here in the real world'
Process of HRD	Education: open-ended process leading to the development of n involves inputs in cognitive and effective domains.	Training: specific goal is to impart technical skills; involves input in the psychomotor domain

*Source: Natarajan, R. (2000), "University-Industry Cooperation, Collaboration and Partnership", Presented at the Presidents of World Prestigious Universities Forum on the Theme, "Higher Education and Development of High-tech in the 21<sup>st</sup> Century- University and Enterprises", Beijing- China,*

There is a huge opportunity in future, worldwide, for higher education output if relevance and quality is aligned to the global needs. According to a study conducted by Boston Consulting Group and US Census Bureau, a large professional population is estimated for year 2020 in various parts of the world on demand side spread as per the growth of the economy. However

there will be very few demographic locations to supply this manpower to the world. India being one of them to meet the world need.

This demographic advantage is arising out of efficient output by the trained manpower of the country. A survey conducted by Roger Stough, professor of School of Public Policy, George Mason University, USA, of 25 countries says that higher education and research and development are two most important factors in the making of the country in the top five factors identified which contribute the most in developing the country and its competitiveness. Many nations have revised their long term perspective of economic development inserting higher education as one of the main agenda in the development; such as setting up objectives like,

- To foster coordination between economy and education
- To develop and modernize higher education based on long-term concepts

The outcomes expected from the intellectual capital of an economy are constrained by the extent and quality of the available indicators. Traditional frameworks had been working in an era when the economy was simpler and the role of knowledge and technical change was not fully acknowledged. The contributions of new researches to productive growth, the economic effects of the computer and information networks, the role of tacit learning and formal and informal economic interactions are among the phenomena which at present elude us. The present indicators of Intellectual Capital of and Economy and its framework are considered to be close to the following model.

**Table:** GER, skill distribution and labour share

*(For the year 2002-2003 or most recent year available)*

GER - gross enrolment ratio

Country	GER in HE	Skill distribution of labour force			Labour share in economic sectors in 2000-2004		
		Agriculture labour	Unskilled labour	Skilled labour	Agriculture	Industry	Services
USA	83	2.0	63.7	34.3	2.5	21.6	75.9
China	15	43.6	48.9	7.5	44.1	17.7	16.1
Japan	52	3.8	79.0	17.2	4.7	29.7	64.8
India	11	59.2	35.4	5.4	59.0	17.2	23.8
Germany	50				2.5	32.5	64.9
UK	64	4.1	69.0	26.9	1.4	24.1	74.2
Italy	59				5.1	32.1	62.8
Brazil	20	16.1	73.1	10.8	19.8	21.6	58.4
Russia	65	14.3	61.6	24.0	10.7	29.7	59.6
Canada	57				2.8	22.8	74.4
Korea	89	na	na	na	9.3	27.3	63.3
Indonesia	16	47.7	48.2	4.1	44.3	14.1	41.6

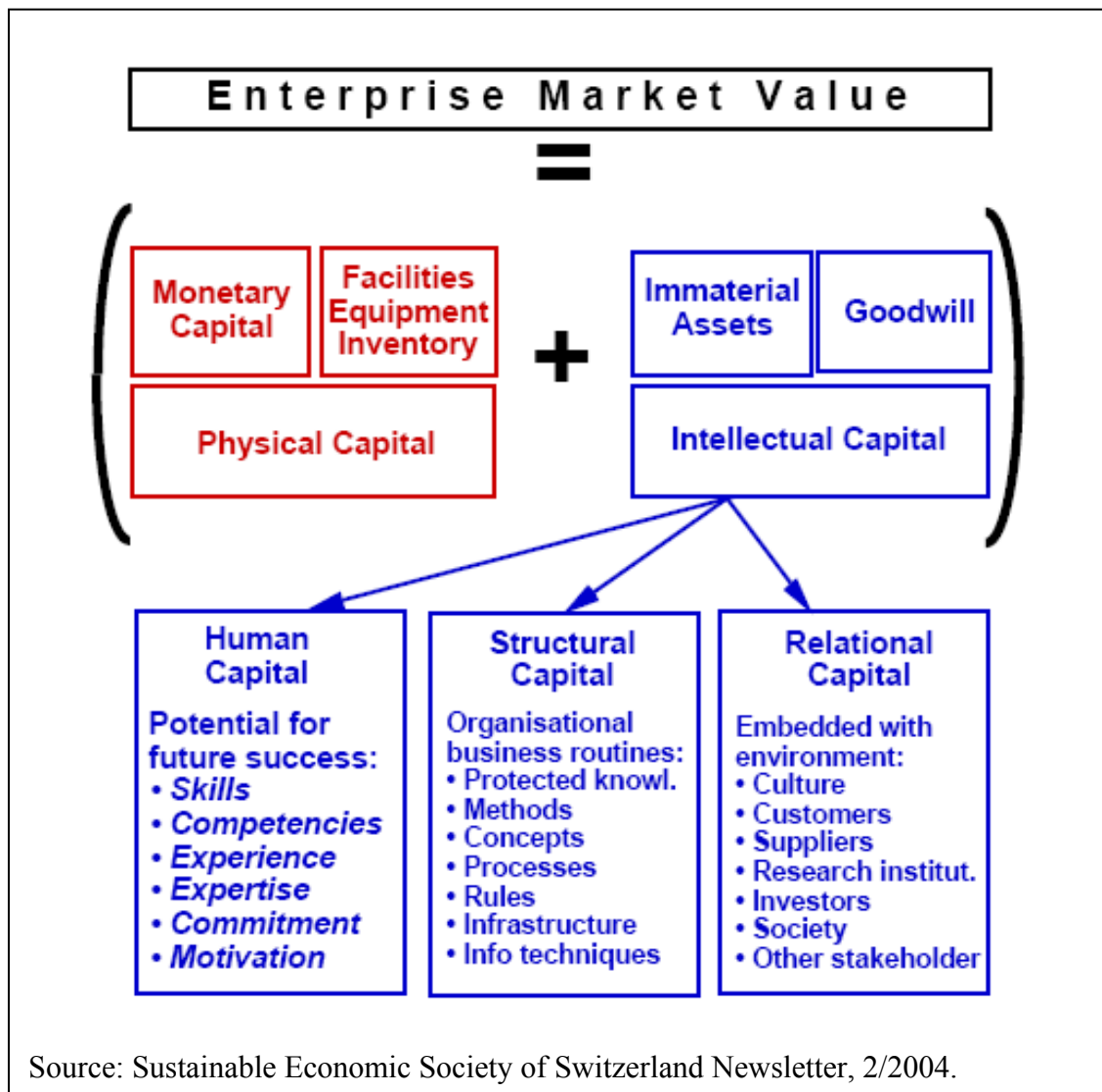
na=not available

Source: GER data from UNESCO Institute for Statistics; Labour data (by skill distribution) from LABORSTA Database, International Labour Organization (ILO), <http://laborsta.ilo.org>. Labour share in economic sectors data from WDI (2006); Data on Labour share in economic sectors on India from Table 5.

## Industry Expectations and Business Education

At present, there are two specific expectations industry has from the business graduates. First, they should have the skills, capability, imagination and adaptability to keep pace with new dynamics of the globalized economy. Second, the new generation graduates must have the leadership quality and communication skills to exert a strong influence on senior colleagues to facilitate changes and not to resist them. If the horizon is expanded from industry expectation to economy expectation, the role of business education is more serious and challenging. It requires developing a graduate who has leadership qualities and innovation abilities to create jobs in the economy.

The preparation of a business graduate is somewhat important and needed to the economy and society. There have been comparative studies on the technical and behavioral skills of graduate students from business and non-business programmes. 'The study which assessed 12 skill areas showed that business graduate students were significantly better than other graduates in seven categories: action, goal setting, information analysis, information gathering, quantitative skills, theory and technology. But they did not outpace in other equally critical areas: helping others, sense making, initiative, leadership, and relationship' (Kretovics, 1999).





In a study by Howard Baumgartel (1968, 1982), some of the deteriorations were highlighted by the respondents who included teachers, graduates in service, employers, and decision makers. The most important among the points are imparting skills in decision making and personal growth, the quality of teaching on industry cases, links with business. A similar study conducted by Ishwar Dayal (1991) reflects some of the important issues about the business education in India:

- The programme tends to make the students a problem solver and not visionary. Business programmes should develop managers and not entrepreneurs.
- All groups feel that the programme should be broad based rather than specialist orientation.
- Very high percentage in the respondents have advocated for the residential arrangement for graduate for maximum benefit.
- Most people concerned with management education feel that requirements of business education will change in every 5-7 years.

The study above is an indicator of the changes taking place in the business education model. Many educational institutions are accepting the changes quickly and opening the centers for researches in the functional areas of management. Starting the Innovation Laboratories, Entrepreneurship Centers, and Leadership Cells by the B-schools are examples of accepting the changes. The biggest challenge business education presently has and also carry in future is creating a job opportunity for the graduates. In the present economy of the world, the increase in job opportunities is not in tandem with the increase of the graduates passing out every year. This is rather an acute problem in the developing and underdeveloped economies where unemployment rate is quite high. The business education and employment have become analogous.

The business schools have already tuned themselves to train the students in an environment which provides the students a rigour of academic learning, a motivation of social involvement, a search for handling responsibilities, and a zeal for industry interaction. Economic growth has demanded these professionals to sustain and progress with the growth. For example; MBAs account for approximately 25 percent of all masters degrees awarded in USA and this figure is growing with the passage of time. The schools of international reputation like Kellogg, INSEAD, Wharton, Stern, LBS, IMD etc. have already prepared themselves to adapt the changes happening to the industry and economy and working to produce more of entrepreneurial minds. In India, such developments are taking place with a slow pace with IIMs. Some of the leading B-schools like IIM- Bangalore, Ahmedabad and Kolkata have already registered process of global changes in the business education. The start of Indian School of Business, Hyderabad is a model of business education followed by western countries. These are surely having their presence not only in India but also in rest of the world. These institutions are keenly concerned with the innovation at institutional level and are also able to visualize the future more clearly than those who are managing business.

### **Education Orientation and Knowledge Output**

Developed countries are rating their per capita yield of knowledge workers. The per capita yield of Indian knowledge worker is one fourteenth of a similar worker in the developed nation. It is important that the Governments, Industry and the Academia work together to

develop and market intellectual property products which alone can increase the per capita revenue non-linearly. It would be critical to find the types of enriched partnerships possible between the ICT, Academia and the industries across the world. Three distinct areas can be identified. They are, (i) Transforming a country into knowledge society with innovation as the thrust area influencing the information society, industrial society and agricultural society. (ii) the young population of the country such as India having 540 million youth below 25 years, which is an important asset for the planet Earth. This dynamic resource will have two components. One, at the secondary education level supplemented with high quality vocational skills and the other at the university level. Knowledge workers will come out of this Global Human Resource Cadre. Definitely, ICT institutions in association with the Academic and R&D institutions can participate in the evolution of trained human cadre.

The economic liberalization in 90s created more space for the private sector to grow and grow faster. This led a demand for the trained and ready manpower for the industry. This was the time when many institutions, from private and public both, started management programmes. This immediate need, in India, has led mushrooming of management institutions, which in turn have affected the quality of the education and a bad name to the degree. With a slow growth of economy, business education can not be highly demanded for a long time unless there is a distinctive way to offer the strength of the degree and also offering of the distinctive degrees, which have created values in recent times. If the need of the economy is not addressed in time, this will import human resource from other countries at higher cost and will in turn increase the cost of the business.

The present education system has not equipped itself for the challenges coming before and thus it is creating a fear in different concerned parties. There are some issues that need special attention to develop future perspective in management education in the light of economic, social and international context and to find measures of quality improvement before an economy in transition;

- Developing a mechanism for forecasting the demand for management graduates for next two decades and preparing plan needed to match the requirement.
- Developing sectoral educational programmes since sector specific organizations do not have absorptive capacity for management graduates at present.
- Encouraging entrepreneurship as the economy would have to rely on entrepreneurs for sustained economic growth.
- Identifying the support needed by privately funded institutions as they would have to play an important role in the development of the management education in the country.
- Increasing research and industry partnership to test the research findings and implement them for industry and asocial benefits.

These issues give a sense of direction of management education in future. The changes, if happen, are expected to be exciting and they would transform the business education standards. The management institutes, in response, have to shape them like a corporate organization to accept the changes and invest for the innovation. The business education will survive as long the organizations are in existence, which they will.

The need for developing new skills, new perspectives, new ways of handling problems would be greater as the competition, global operations and the technological advances become more intense. Hence, management programmes would have to be one step ahead of operating organizations and change their educational technology to respond effectively to the demands of the external environment (Dayal, 2001). The expansion not only in quality of one programme but also starting new programmes those are new to the industry and economy.

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## Authors:

Rahul Singh, associate professor  
Birla Institute of Management Technology, New Delhi, India  
[rahul.singh@bimtech.ac.in](mailto:rahul.singh@bimtech.ac.in)

Jitendra Kumar Mishra, associate professor  
Birla Institute of Management Technology, New Delhi, India  
[jitendra.mishra@bimtech.ac.in](mailto:jitendra.mishra@bimtech.ac.in)

Mahesh Kumar Singh  
Szent Istvan University, Hungary  
[mahesh.kumar.singh@mkk.sziu.hu](mailto:mahesh.kumar.singh@mkk.sziu.hu)