

# KNOWLEDGE ECONOMY AND GLOBALIZATION: AN ANALYTICAL PERSPECTIVE

Mikku Dave<sup>1</sup> and Dr. Meenu Dave<sup>2</sup>

## Abstract

*The growth of any country economically depends on many factors that changes from time to time. The dominant factors in the last century were mainly based on agriculture or manufacturing/industry or both. With eventual change and rapid increase in technological advancements, the shift in the success of the economy moved to the service-based era. The service-sector-based economy has laid out new requirements and any economy in the world which needs to succeed today is acknowledging the significance of well-educated and competent workforce. The role of education is multifaceted. On one hand, it aids in increased productivity, and on the other hand, it is education only which boosts the technological advancements in any economy. Moreover, globalization is having both positive and negative impacts on knowledge-based economies. As a service-based economy does not depend on geographical boundaries for its growth, the imbalance created due to high-skill and low-cost availability may result in increased struggle for the available employment opportunities. In this context this research paper deals with multiple aspects like the change in the working organization of the service-based structure, significance of higher education with reference to the knowledge economy, impact of globalization on the knowledge economy, challenges posed by increase in higher education, and future prospects of knowledge economy.*

## Introduction

The twenty-first century economy may be best acknowledged as knowledge economy where the wisest investment is in the development of human capital, since it is the most efficient way for gaining competitive edge and prosperity. Previous economies laid stress on physical assets and manual labour, whereas knowledge economy has knowledge, innovative ideas and technology at its core for growth.

The phrase 'knowledge economy' was first of all mentioned by Peter Drucker in 1969. According to Drucker, the knowledge economy has three main characteristics:

- Borderlessness, because knowledge travels even more effortlessly than money.
- Upward mobility, available to everyone through universally available formal education.
- The potential for failure as well as success. Anyone can acquire the "means of production," i.e., the knowledge required for the job, but not everyone can win. (Drucker)

In all the different types of capital used in the economy, i.e. natural capital, manufactured capital, financial capital, human capital and social capital, one more aspect is added and it is gaining momentum day by day—that is knowledge capital.

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1. Assistant Professor, Department of Economics, St. Xavier's College, Jaipur, E-mail: mikkudave@gmail.com

2. Assistant Professor, Department of Computer Science, Jagan Nath University, Jaipur  
E-mail: meenu.dave@jagannathuniversity.org

The traditional barriers between products and services are blurring. A product is now a package of services combined together. For instance, a telephone is no longer used just for making or receiving calls, it is becoming smart—which tuning several applications at the same time. Similarly, other devices such as cameras or photocopy machines or washing machines, etc. are all performing multi-functions at the same time by making use of knowledge-based applications.

Even the financial markets are evolving where the financial functions are not restricted to just depositing or issuing credit are also includes dealing with several innovative financial products which are in fact a bunch of specialised financial services. These again are knowledge centric.

Even in the field of sports, it is no longer just the honing of skills that are encouraged but usage of smart-knowledge-based technology for the overall development of the sportsperson and sports gear. Detailed analysis of strategies and game-related moves are also utterly essential for overall advancement.

Knowledge-an all pervasive concept-means no boundary, it is turning into a very powerful mechanism in the wake of globalisation.

### **Change in Working Organization of Service-based Structure**

With the change in the sectoral composition of the economies, the nature of the assets required also changes. Earlier the economies were based on agriculture and therefore, the requirement was of more land and labour. Then, with the shift towards the manufacturing sector, the requirement of manufactured capital increased. Now the economies are service sector based. As a result, the requirement is for the creation, accumulation and usage of knowledge assets or knowledge capital.

The Information Age moves the basis of economic value from goods to intellectual assets, information, and the talent that develops them. It is now widely acknowledged that intangible assets, which largely consist of know-how, unique intellectual property, and patent rights, drive more than 80 percent of the valuations of publicly-traded companies [Wilkin].

Figure 1. Picture of last 4 decades for Determining Company Valuations-Intangible Knowledge-based Assets overtook Tangible Assets.

Source: Wilkins, D. (2012)

As revealed in the above figure 1, the percentage share of the intangible assets i.e. the knowledge assets, is rapidly increasing in the overall assets as the economies are gradually moving towards the development of more and more services which are both simple and complex in nature.

Industries are expanding in terms of services. The future of knowledge-based economies on the global scale will be largely dependent on the expansion of services related to the following sectors:

- Arts and Design
- Business Operations
- Banking and Financial Services
- Community and Social Service Occupations
- Consultancy Services

- Construction and Architecture
- Education, Training, and Library Occupations
- Entertainment and Media
- Healthcare Support Occupations
- Hospitality
- Information and Communication Technology
- Legal Services
- Life and Physical Sciences and Mathematics
- Medical Practitioners and Technical Occupations
- Management
- Office and Administrative Support Occupations
- Personal Care and Service Occupations
- Pharmaceuticals
- Sales and Related Occupations
- Security Services
- Sports

### **Impact of Globalization on Knowledge Economy**

Although the quality of education is likely to vary in countries experiencing rapid expansion of educational provision, it is nevertheless the case that Asia is producing more engineers and physical scientists than Europe and North America combined. Asia is already producing twice as many engineers as America and Europe together. In the US, approximately half of those gaining a doctoral degree in Engineering, Mathematics and Computer Science are foreign students [3] (Brown).

Globalisation has led to the multinational and transnational companies to offshore the work related to marketing, designing and even research and development. This has increased the demand for high-skilled labour force which is well versed in the functioning of the knowledge tools and techniques. Earlier the supply of manpower for high-end jobs was through the developed economies only, but today this scenario is changing rapidly.

Asia in general and India and China specifically are becoming huge source of highly-skilled workforce. And the further advantage is that these countries are providing such knowledgeable labour force at a comparatively lower cost, thus making the MNCs going for the cost advantage. These companies have developed a web of skilled work and labour according to those jobs which are global in nature thus making the supply from diversified geographical sources and reaping the benefits of the growing knowledge economy.

### **Knowledge Economy and Globalization with Reference to India**

India lags far behind in imparting skill training as compared to other countries. Only 10% of the total workforce in the country receive some kind of skill training (2% with formal training and 8% with informal training). Further, 80% of the entrants into the workforce do not have the opportunity for skill training [4].

For India, the difficulty to fill up the jobs is 48%, which was above the global standard of 34% in 2012. The lack of available applicants, shortage of hard skills and shortage of suitable employability including soft skills, are some of the key reasons in finding a suitable candidate for available jobs in the country [5].

As compared to western economies where there is a burden of an ageing population, India has a unique 20-25 years window of opportunity called the "demographic dividend". This "demographic dividend" means that as compared to other large developing and developed countries, India has a higher proportion of working age population vis-à-vis its entire population." The result is low dependency ratio, which can provide a comparative cost advantage and competitiveness to the economy [6]. Further, it is expected that the ageing economy phenomenon will globally create a skilled manpower shortage of about 56.7 million by 2020 [7].

India has the world's youngest work force with a median age way below that of China and OECD countries. Half the population of India was younger than 25 in 2010. It will change to half the population being under 28 in 2030, making India a very young country for the next 20 years. With the rising trend of outsourcing work globally, India has the opportunity to become a global reservoir of skilled human potential, accounting for 28% of the graduate talent pool among 28 of the world's lowest-cost economies [5].

The Indian government doubled the allocation of funds for skill development under the National Skill Development Fund (NSDF) by INR 10 billion in the Union Budget 2012-13. The total corpus of funds was also increased to INR 25 billion [8].

### **Challenges Posed by Increase in Higher Education**

**Inadequate Quality Education:** Higher education is increasing in quantity but not in quality. Eventually such a workforce is rejected by the industry. The end result of imparting skill-less or low quality education is increase in higher education statistics, jobless youth and industries deprived of skilled work force.

**Outsourcing of Jobs:** With increased technology, advent of the web, step towards globalization, and the outsourcing concept, the youth of any geographical region might be highly skilled; yet deprived of sufficient job opportunities due to outsourcing of jobs, because industries are generally looking out for high level skills but with relatively low costs.

**Increased Frustration due to Unemployment or Underemployment:** Augmented cases of depression are another problem of a knowledge economy. Whether the reason is outsourcing or under employment or unemployment, the lack of sufficient employment options leads to despair. The educated youth thus even opt for wrong means. This growing frustration in youth is neither a good sign for the industry nor for the growth of society.

### **Future Prospects of Knowledge Economy**

Knowledge economy cannot flourish with the help of solid education base and dynamic and state-of-the-art information infrastructure alone. The world is transforming into a smaller and smaller village day by day as the information technology is improving. Distances are reducing. Globalization is diffusing the boundaries where knowledge is concerned. There are many other development issues which should be keenly taken care of, if a country wishes to lead as a knowledge world leader. Some of the important ones which should be addressed with long-term planning are:

- Economic integration and diversification
- Effectual innovative structure
- Promotion to entrepreneurship

- Reforms in education and training systems as per the region's requirement
- Equality based on identity, gender and language
- Political will power to carry out the reforms

In addition to the aforesaid issues, the following concerns will also play an important role in the progress of a knowledge economy:

- **Structural Unemployment:** It is a particularly difficult scenario in which certain skills are no longer required, not just within a particular company, but within an entire sector. Structural unemployment may be the result of cyclical boom and bust cycles, offshoring of particular industries, or the demise of certain sectors due to technology or culture change. Whatever the cause, the result is an uneven distribution of talent relative to the available jobs [2].
- **Environmental Sustainability:** Environmental and Socio-economic carelessness have already created huge natural imbalances. Knowledge economies are largely dependent on the technological advancements and use of electronic and electrical devices like computers, smart phones, etc. whose manufacturing till now comprises toxic and non-biodegradable elements. Besides, commercial data stores, i.e. 'data centers' consume large amounts of energy and are one of the principal contributors to environmental hazards like global warming, emission of green house gases, etc. For planning, design, manufacturing, operations, maintenance and disposal also, of tools and equipments for knowledge-based economy, environmentally sustainable measures should be stringently followed.
- **Digital Work and Knowledge-Work Gap:** Knowledge economy will create a clear gap between the jobs. Jobs with fixed rules, regulations and routines are already moving towards automation and in future more and more jobs will be encompassed under this section. On the other hand, a routine work which requires lots of inter-personal communication/interaction, critical analysis and judgemental skills, will use knowledge empowerment for decision support. This will further open new avenues for specialized services. A structural approach is required to handle this gap.

### **Conclusion**

Knowledge-based economies are mainly dependent on four aspects of knowledge—generation or production, storage, usage and dissemination. All the four aspects should be working in coordination and that too on global scale for achieving the best results for healthy development of any economy. The upcoming knowledge economies have crossed the age of infancy and are somewhere in the adolescent phase, and are struggling with the problems of adolescence. The future of the knowledge economy depends mainly on structuring the essential areas that have already been identified, and resolving the issues related to the future prospects.

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