OPEN LEARNING, THE WORLD OF WORK AND ECONOMIC DEVELOPMENT: In the Context of Globalisation

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1. Introduction

Planning for competitive advantage will require designing of policies that would aim at harnessing skills, technology and learning. In the era of globalisation, economy is knowledge-intensive and induced by innovation and utilization of new technologies. Preparation of a cadre of manpower that can effectively function in the global economy is therefore critical for improving productivity of resources.

In India, the overall improvement in competence level of labour force as measured by the indicators of education and health care is very slow. The proportion of vocationally trained persons to the total working population is abysmally low, 5 per cent, whereas the corresponding ratios for developed countries varies between 60 to 80 percent. Productivity is therefore low, as we shall discuss later.

Globalisation provides unlimited access to economic opportunities in the world. But, to reap its benefits, through the pursuance of an effective competition policy, technical and professional capacity of manpower of all types and levels ought to be enhanced, atleast to match the levels obtaining in other countries with which India have to compete in the domestic and international markets. And for this, concerted efforts would be required to design strategies for teaching and learning to cater for education and training needs of all the aspirants. Such efforts, moreover, should be commensurate with the requirements of the world of work. Besides, the perceived methods of imparting education and skills should be cost-effective.

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While India’s conventional education systems and structures are duly comprehensive to respond to manpower needs of the society and economy, the size of working population (15 years and above), over 400 millions, is so large and income capacity of the country is so low that it is not possible to provide financial wherewithal to impart quality education to all the aspirants, including those who seek up-gradation of knowledge and skills. Needless to mention, lack of resources is one of the major impediments in realizing the national goal of universalization of elementary education and vocationalisation of secondary education.

In this context, the Open and distance learning (ODL) system, as an effective, flexible and innovative method of education, offers ample opportunities to face the challenge of providing quality education to everyone and everywhere at the affordable costs. The ODL institutions adopt multi-media approach for design and delivery of programmes and utilize information and communication technologies (ICTs), which enable them to suitably evolve teaching-learning strategies that suit the educational requirements and convenience of learners. More importantly, ODL is able to overcome such deficiencies of conventional systems as inadequacy of facilities, inequity in provision of services, lack of access to deprived groups and areas, and high costs of education. Intensive use of educational technologies not only ensure wider reach of programmes and generate economies of scale that lowers the unit costs but also assure quality of teaching and learning through desirable interactivity. The ODL has thus significant potential to create knowledge revolution, universalize higher education and to widen the base of human capital formation, which is critical to accelerate the pace of economic development.

In view of the foregoing, the major objective of this paper is two fold. One is to briefly indicate the extent of deficiency due to lack of education in the working population. And, the other is to discuss the approach of utilizing ODL for upgrading the knowledge and skills of labour force. It is hoped that the suggested approaches would enable the ODL institutions to formulate policies and programmes that would help the work force to benefit from the advances in new knowledge and technologies for raising productivity and for assuring competitiveness of economy.
2. Un-met Demand for Upgradation of Knowledge and Skills: A Challenge for ODL

India has planned to raise the rate of economic growth to 8-9 percent per annum during the Xth Plan (2002—2007) from 5.5 per cent realized in the IXth Plan. This level of achievement is considered critical for expediting the process of alleviation of poverty and for ensuring a decent standard of living. Not only the level of investments in various employment oriented schemes would require to be raised, but productivity of resources—physical and capital—would have to be improved, which is however not possible without ensuring adequate technological and knowledge inputs that go in the process of economic activities. Economic efficiency, as measured by incremental capital-output ratio (ICOR), of about 4, is one of the lowest for India as compared to other countries. The reason is not too far to seek. An assessment of educational and training levels of working population reveal that a significant majority of work force do not possess requisite knowledge and skills that are needed to effectively function in the modernized farm, industrial and services sectors. This is evident from the following:

2.1. Low Level of Educational Attainment

In spite of commendable success in quantitative expansion and diversification of education system, the overall educational attainment as measured by adult illiteracy (40%), gross enrolment ratio at all levels (55%), participation in higher education (7%), average number of years of schooling (2.4 years), R&D expenditure (about one percent of GNP), S&T manpower (3.5 per 10000 work force), etc., compare unfavourably in relation to the average level of attainment for developed and developing countries. In the knowledge society in which exploitation of ICTs and access to the world markets offer tremendous economic opportunities for creation of wealth, educationally backward countries are lagging behind all those that have comparative advantage in quality of human resources.

In the global economy, relevant policies for rapid economic growth can succeed only if the skills level of the labor force can ensure efficiency in use of resources. Unfortunately, education level in the labour force in India is very low. In 1999-2000, 44
percent of the total workforce was illiterate and 22.7 percent had schooling only upto the primary level. The share of graduates and above is as low as 5 percent. These figures however hide considerable variations across the rural-urban areas and male-female workers across the country.

The existing network of educational institutions, which offer professional and technical training of all types and levels through conventional methods are unable to cope with the huge demand for training and skill formation of the entire labour force, over 400 millions, as well as the new entrants, about 8.7 millions per year. For instance, inspite of the policy stipulation to divert at least 25 per cent of secondary level students towards vocational stream by 2000, less than 10 percent students opt for vocational education. Financial constraints to provide adequate infrastructure is mainly responsible for tardy progress in vocationalisation of secondary education. In this context, the approaches and methods of open learning are relevant, cost-effective and have potential to meet the requirements of unlimited number of heterogeneous groups of learners in the labour force. And, through the use of ICTs, the programmes can reach the remote areas, without sacrificing the quality of education and training.

2.2. Lack of Competitiveness of Economy

The Global Competitiveness Report(s) has consistently placed India at 1st rank in terms of the abundant labour force, but its position on the basis of average worker’s productivity is one of the lowest, which is attributable to lower competence level of workers. This is also corroborated by the fact that productivity of farm and industrial sectors in India is relatively lower than the major Asian countries like China and Indonesia, and other countries with which India have to compete in domestic and international markets.

It is also evident that the ratio of S&T manpower in the total labour force (3.5 per 1000), spending on R&D activities (less than one percent of GNP), extent of research collaboration between industry and institutions, etc., are very low as compared to the levels obtaining in developed countries.
As the knowledge economy is propelled by technology, education-led economic strategies should be designed and implemented for improving competitiveness of economy. Educational infrastructure should therefore be strengthened and exploited. For instance, the network of ODL institutions, over 5000 study centers which are established in the campuses of dual-mode universities and colleges, have tremendous capacity of inducing knowledge revolution, especially through the application of multimedia approaches of teaching and learning. They offer over 1000 programmes of different types and levels. ODL can, thus, not only improve entrepreneurial capacity and productivity of working population but also assist in preparing strategic plans, based on informed decisions, for efficient deployment of manpower and for promotion of business and trade. This, in turn, would ensure competitiveness of economy and create conditions for sustainable economic development.

2.3. Education-Employment Mismatch

The growth of new entrants in the labour force is as high as 8.7 million per year. While the overall unemployment rate was 2.3 per cent, in 1999-2000, the corresponding ratio for educated persons was as high as 14.8 per cent for secondary education and above and 23.7 per cent for all types of technical education\(^8\). A high rate of unemployment among educated youth reflects both wastage of resources as they are not gainfully employed and lack of quality of education to match their expectations of high wage employment opportunities. In such a situation of high educated unemployment, ODL system, as a powerful instrument of providing education and training, offers opportunities to educated unemployment youth to acquire new skills, upgrade knowledge, diversify professional and technical knowledge to improve their employability and the prospects for higher earnings\(^9\).

Briefly, the purpose of the above discussion is to demonstrate the following: First, there is a huge backlog of un-educated and un-skilled labour force. They are unable to effectively function in the knowledge economy and therefore less effective to support the national endeavours to expedite the process of development, particularly through reaping
the benefits of globalisation. Second, the conventional system of education from primary through tertiary levels is unable, for the known reasons, to provide requisite training and skills to the entire working population so as to enable them to exploit the employment and earning opportunities. Third, ODL strategies can overcome the existing problems, particularly those relating to high costs of education, lack of flexibility and limited access. Open learning can thus extend the benefits of education and training to a large number of workers of diverse backgrounds, even in remote areas and that at affordable costs. The flexible and innovative characteristics of ODL, in effect, ensure the promotion of education for all, which, in turn, assure entrepreneurial development of the working population. The salient features of the strategy are outlined below, in Section 3.

3. **Open Learning and the World of Work**

3.1 **Relevance of ODL**

Economic development critically depends on the extent to which the working population acquires competencies, which cover knowledge, skills, attitudes and values. The goals of education policy, in general, and open learning, in particular, are therefore to foster the acquisition of these competencies through development of necessary educational infrastructure and coordination of activities of various types and levels of organisations that are responsible for carrying out programmes having significant bearing on training and skills formation. As the knowledge revolution has accelerated, the need for high-level competencies for all has strengthened. Most nations have committed to the common goal of lifelong learning for all, which clearly suggest two things. First, the development of individual competencies continues even after entry into the work force. Second, inequitable access to education not only adversely affects the prospect for employment, earning and social progress but also restrict the subsequent learning and earning opportunities. These opportunities need to be more widely and fairly distributed\(^\text{10}\). In this context, open learning has the potential capacity to address the need for continuing education and to equalize educational opportunity for all. ODL is therefore used as a powerful instrument to widen the base of human capital formation\(^\text{11}\).

The composition of labour force has been changing due to growth of knowledge, improvement in technology and liberalization of economic policies. Over 60 percent of
labour force in India is engaged in labour intensive activities, particularly in rural areas. The programmes of continuing education and extension services, which employ the techniques of non-formal, open and distance education, have significantly contributed to skill formation, which is duly mirrored in rural development and industrial production. The share of labour intensive sectors has traditionally been large, which suggest that a focussed training programme for upgradation of skills should be launched, lest such a large segment of working population is marginalised in the wake of technological advancements and globalisation.

A large number of institutions like IITs, IIMs, ITIs, etc., established and managed by different Government departments, cater for vocational, technical and professional education and training needs of different types and levels of youth population who work or seek employment in manufacturing and services sectors. The services extended by such institutions cater largely for urban population. The coverage is however narrow, as reflected from low proportion of skilled workers in the total labour force. Besides, the task of meeting training needs of knowledge intensive sectors is challenging due to rapid advances in knowledge and technology. It is critical therefore to plan for development of core competencies of the working population through the utilization of educational technologies and open learning opportunities, which have significant potential to face the challenge of providing cost effective and flexible methods of training for skill formation. Based on the experiences of implementing policies and programmes of various ODL institutions, the followings are specifically suggested:

3.2. Growth of ODL and Strengthening of Institutional Capacity

ODL promotes the mass based-education. It has therefore acquired legitimacy as an effective system of education and training. In addition to Open Schools (9), there are as many as 10 mono-mode (Open) Universities and over 70 dual-mode (conventional) Universities, which have created a network of facilities for offer of programmes of all types and levels. They enroll nearly one-fifth of the total number of students at tertiary level and the growth of enrolment in distance education programmes is rising at the rate of about 15 per cent per annum. The study centres are duly equipped with the state of art
facilities to effectively meet educational needs of students. The study centers are located in every nook and corner of the country to ensure that education is taken at the doorstep of learners. And the contents of courses and delivery mechanisms are duly customized to satisfy learner’s needs. The availability and use of educational technologies indicate that entire working population has been duly brought in the ambit of ODL institutions for upgradation of their education as well as equalization of learning opportunities for all, including those who have missed the opportunity for different reasons. In brief, institutional capacity has been augmented to revolutionise education and training through open learning.

The infrastructure for open learning should however be strengthened and modernised to take advantage of media based approaches of learning. In doing so, it is imperative that: (i) sub-standard learning materials as used by many institutions should be discarded, (ii) printed materials which are the main stay of ODL should be made available in self-instructional format, (iii) study materials should also be available on audio-video tapes at every study centers, (iv) wherever possible and desirable, use of internet/web-based learning techniques should be utilized, and (v) institutions should undertake focused programmes for capacity building and for development of entrepreneurial abilities. The endeavour made in these directions should be commensurate with the task of providing quality education and training to match the requirements of the world of work.

3.3 Networking, Collaboration and Coordination of ODL Activities
There are a large number of government and non-government organisations, which cater for education and training needs of working population in specific disciplines. As the management of such bodies is different, they hardly collaborate and coordinate their activities for effective targeting of their services and to minimize duplication of efforts. To minimize the fragmentation of such efforts by different bodies, it is imperative therefore to promote networking and to forge relationships among them with a view to establishing convergence of approaches adopted by the conventional as well as ODL institutions. The professional and technical expertise available with conventional institutions, on the one hand, and the ODL strategies, particularly of multi-media
 approaches of teaching-learning, on the other, should be interwoven to effectively improve learning attainments of students and to extend the reach of the programmes. Besides, ways and measures should be explored to develop and share facilities to minimize costs and to optimize benefits. In effect, the coordinated efforts should lead to exploitation of core competencies of institutions such as to ensure effective targeting the specific training needs of working population in every region of the country and that in every sphere of socio-economic activity. The task is so urgent and vital that national apex bodies namely University Grants Commission (UGC), All India Council for Technical Education (AICTE), Distance Educational Council (DEC) and other Ministries/Departments of the Centre and States should take initiatives to create conducive conditions for a healthy cooperation and coordination of activities that have significant bearing on skill formation of working population.

3.4 Linkages between Training and Requirements of Job Market

Each ODL institution is required to assess and ascertain educational and training needs of its clientele groups, especially the working population of the region for which it has the mandatory jurisdiction. And, accordingly, education and skills oriented packages should be designed and developed. The courses and training inputs, including delivery mechanisms, as well as learning attainments should match the requirements of the world of work. In essence, productivity linked programmes and those oriented for capacity building should be provided for different groups of learners. The extent of mis-match between education and employment, as discussed above, clearly suggest that there should be mechanisms to establish linkages between education, training and the requirements of the job market. The employers should also extend support and cooperation in articulating the needs of job market. They should also provide financial support, as they benefit, for sustenance of relevant training activities.

3.5 Incentives for Trainees and Institutions

Infrastructure for learning and training, such as study centers and workshops, should be established at convenient locations, i.e. in the close vicinity of the learners, particularly in rural areas. ODL system allows for taking education at the doorstep of learners and
accordingly, its potential should be exploited. The existing disparities in quality of infrastructure across the regions and study centers should be reduced through adequate investments. Teaching-learning strategies and delivery mechanisms should be designed and executed such that training and skill requirements of clientele groups are effectively met to realize their economic aspirations. Keeping in view the income status of learners and trainees, financial incentives should be provided to subsidize their education and to encourage their participation in technical and professional training. Likewise, the institutions that are able to realize their objectives should also be duly recognized for excellence in services.

3.6 Quality Assurance
At least two-fifths of working population is either illiterate or not so well educated and trained, as discussed above. A focused programme should be launched to facilitate their learning, up-gradation of knowledge and skills. They should be provided multi-media support. And, appropriate instructional methods that ensure greater interactivity in the process of teaching and learning should be adopted. ICTs need to be exploited. More importantly, to ensure minimum level of learning and acquisition of desirable competencies, a thorough procedure for evaluation should be evolved by each institution and with respect to each programme. Quality assurance mechanisms should, in effect, be put in place to seek value for money and to ensure improvement in quality of learners. The peer group should objectively make an assessment of performance of institutions and teachers as well as learners.

3.7 R & D Feedback
Research and development activities are critical for ODL institutions to enable them to plan for strengthening facilities in relation to the qualitative and quantitative requirements for education and training of target groups. R&D activities should therefore be undertaken to obtain feedback from the stakeholders. It is important to articulate training courses and to focus on short-term and long term educational needs of different groups of trainees. And, accordingly education and training needs of target groups should be planned and executed. As the task of raising the competence level of work
force is challenging, the design and launch of innovative programmes, including cooperation among the institutions would critically depend on R&D inputs.

3.8 Strategy for Investment in ODL

ODL institutions need to adopt an enterprise approach in mobilization and utilization of resources to ensure financial sustainability of their programmes. Many of their courses are largely self-supporting. Due to considerable economies of scale in distance education activities, most of them generate enough surpluses, which are, however, not utilized for strengthening of infrastructure. They ought to change their strategies to effectively respond to societal needs. First, the benefits of low costs of education should be passed on to the learners in the form of reduced fees or high quality of education. Second, the revenues generated by institutions should be utilized for improvement of facilities, delivery systems and for extending the reach of education. Third, the policy on subsidization of education should be rationalized to ensure adequate flow of funds for development of ODL, the beneficiary of which are generally from the weaker sections of the society. The aspects of resource mobilization and utilization of funds should be reviewed with a view to identifying appropriate policy interventions. Such considerations as who pays, who benefits and with what consequences, should be duly taken into account so that the approach of funding ODL should be suitably designed to ensure financial sustenance of ODL system.

4 Conclusion

The era of globalisation has tremendous implications for knowledge, technology and learning as well as for sustainable economic development. The countries having comparative advantage in quality of human resources as measured by the indicators of education and health care, are able to reap the expected benefits of globalisation. In the backdrop of educational attainments, training and skills of the existing working population, which are assessed to be lower for India compared to other countries, this paper has argued for utilizing ODL strategies with a view to raising vocational, technical and professional competencies of the work force to match the levels obtaining among the countries with which India have to compete in the domestic and international markets.
Lack of efforts in this direction would unduly marginalize the working population and retard economic progress.

In the knowledge intensive economy, which is propelled by new technologies, it is not possible for a large proportion of uneducated and un-skilled labour force to ensure improvement in productivity of resources and competitiveness of economy, which, in turn, are critical for taking advantage of un-limited economic opportunities in the era of globalisation. With a view to expediting the process of educational development and for widening the base of human capital formation, it is suggested that ODL, which is flexible, cost-effective, innovative methods of mass based-education and training, should be intensively exploited. A concerted effort in this direction would induce knowledge revolution and, in effect, help prepare a cadre of trained and skilled manpower needed to effectively function in the knowledge economy. The growing credibility of ODL, the availability and use of network of facilities especially the utilization of ICTs would promote synergy between open learning and the world of work. In essence, these would ensure improvements in competence of work force, which is critical for efficient use of resources and rapid economic growth. The growing convergence between conventional and non-formal systems of education, and development of coordinated approach to target the training needs of working population would expedite the process of human capital formation. The support of educated and trained manpower is crucial for realizing higher growth targets. As the traditional methods of education and training have not yielded the desirable results, due mainly to inflexibility in offer of programmes and prohibitive costs of services, the exploitation of potential of ODL system is therefore called for to upgrade the knowledge and skills of the abundant working population. This, in turn, would improve the overall entrepreneurial capacity of the manpower that is needed to ensure competetiveness of economy and sustainable development.
References


4 As in footnote 1, Chapter 6, p. 125.

5 Ansari, M M (2001) ‘Tenth Five Year Plan Perspectives on Distance Higher Education’, Chapter 4, p. 74.


8 As in footnote 1 & 4.

9 Dhanraj, Gajaraj (1997) ‘Globalization, Competitiveness and Open and Distance Education’, Xith AAOU Conference, Malaysia.


11 Rao, Chandrasekhra RVR (1993) ‘Technical and Vocational Education through Distance Education’ (Ed.), BRAOU, Hyderabad

12 As in footnote 5