



## Need of Valued Research for the Development of Higher Education Institutions

### KEYWORDS

Sustainable development, Quality Education, Education and research, Research innovations.

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### ABSTRACT

*The situation today is that research efforts are very unevenly distributed between different countries and regions. Some industrialized countries conduct the greater part of the world's research. This picture has several problematic consequences for the developing countries that do not have a large share in the global research effort. On the one hand, most research is directed at problems and questions that are related to the needs of the industrialized countries where the research is conducted. On the other hand, a certain level of education, research and technology competence is necessary to benefit from knowledge developed elsewhere. Platform of Research and innovation for higher education institutions is an entrance ticket to take part in the international knowledge development.*

*With this research article, we have tried to explore & discuss the role, contribution & implications of research for the sustainable development of higher education institutions (HEIs).*

### INTRODUCTION

Historically, research and higher education have not been a central concern within development initiatives. Donor institutions have tended to place more emphasis on primary and, more recently, secondary education in their development assistance. An important reason is that there has been little empirical evidence of economic benefits for the population as a whole, let alone specifically for the poor. Most studies found higher returns to individuals from primary and secondary schooling than the returns from higher education. However, new evidence suggests that higher education & research ability can significantly increase incomes and the rate of economic growth. One important factor is that higher education improves the graduates' awareness of and ability to use new technologies.

After the Second World War, there was a favorable political climate and public funding support for research. Developed countries, notably the USA, considered research to be of critical importance for development, and universities were relied upon for carrying out research and development (R&D) activities. The Sputnik effect introduced competition in scientific research. Policy support and public funding were forthcoming for R&D activities.

The knowledge divide between developed and developing countries is deeply entrenched. Developing countries lack both financial and human resources, and are poorly placed with regard to R&D activities. They need to improve their capacity to produce knowledge domestically as well as absorb knowledge produced elsewhere. In order to carry out research and to improve research capacities, the university system needs to be strengthened through expanding graduate and doctoral study programs.

Private sector funding usually takes the form of project-based applied research activities in contrast to the emphasis by public agencies on basic research. The private sector has developed its own research facilities, although at times it commissions universities to undertake research. Many universities are eager to develop links with the industrial and production sectors, which increases the relevance and applicability of their research, facilitates technology transfer, and contributes to national innovation systems. In the context of declining public funding support, such links are also seen as a potential

avenue for income generation for universities.

The conventional wisdom in higher education, is only teaching oriented, which once served well and is no more fit for today and tomorrow. The time demands revolutionary changes to promote quality through technological research, innovation and entrepreneurship. Institutes must act fast to reform otherwise foreign universities are likely to get hold and dominate Indian education market. Indian professors have contributed immensely in USA universities. Why they are not contributing in India? Our system and procedure are obstructing their performance. Our universities have rigid inflexible, outdated rules and regulations; we need to adopt well proven system and procedure from developed countries. It is not a matter of just putting more money or appointing more man power. It is more matter of using current and appropriate system in research and innovation by leveraging the resources in efficient and effective manner for success.

### Objectives

1. To study the contribution of research in higher education.
2. To study the role and importance of research in the development of higher education institutions.
3. To study the implications of research on higher education institutions.

### Methodology

The study is descriptive in nature and therefore the information presented is based on secondary data. Secondary information has been collected from various documents such as books, newsletters, reports, magazines, journals, daily newspaper, WWW related to understand the applicability of research for the development of HEIs.

### CONTRIBUTION OF RESEARCH IN HIGHER EDUCATION

Research is an integral part of higher education institutions' mission. Faculty does research as part of their teaching function. They also perform research sponsored by other sectors of the economy. Total research and development performed by the higher education sector is the sum of expenditures made from funds received from other organizations (sponsored research) and the monies spent from the institutions' own budgets (non-sponsored research).

Research is the seed corn for the harvest benefit. Benefits

from research for outweigh the cost. Research gives joy and sense of achievement. Research provides economic security and confidence. It enhances the rate of return on investment and open gates of opportunities. It enrich the human civilization.

Higher education is not a sector in the System of National Accounts, but in the system of research and development, gross domestic expenditures on research and development (GERD), it is separated because of its critical role in the creation and dissemination of new knowledge.

Traditionally, universities, including agricultural universities, have focused most of their attention on national development through the two missions of research and teaching.

Universities have often seen themselves as institutions to prepare graduates for national and international labour markets, and to address national and international research problems. Academics have to win national or international acclaim for the quality of their research and teaching, and this has sometimes been at the expense of making a greater contribution to local economies and communities. Few universities appear to have developed comprehensive strategies to contribute to the development of local education and training systems.

Research and Innovation generate surplus; Students acquire research and innovation skills, which they can use lifelong. Research provides insurance from obsolescence. It provides economic and technological security. It takes the nation ahead of others, which is so essential in the competitive world. College can serve the people better; if they add research in their framework. Research does not consume resources but generates surplus. Bush commission report 1945, gave another philosophy that "Research should be the main product of the universities, and education as by product." It strengthened the research in universities which made USA a forerunner.

#### ROLE AND IMPORTANCE OF RESEARCH FOR THE DEVELOPMENT OF HIGHER EDUCATION INSTITUTIONS

The traditional role of an institutional researcher at a university was regarded as an information powerhouse for the institution. Any organization's data warehouse is only as powerful as the conciseness of the request for future objectives of data usage.

Research and education are complimentary; research subsidizes education and education subsidizes research. Most important it makes learning joyful and creative. Learners become achievement oriented. Teaching and research are found to be inseparable and mutually supportive to each other. Every professor is to be viewed as a scientist; he should be given fund for research at the time of appointment. Professor should be encouraged to build a research team consisting of junior and senior faculty members and student along with supporting staff. The culture of institution must have to change in favor of research and development. Their performance should be measured in term of what new they have discovered and patented and not how much they have memorized. They should make the college of new knowledge, new theories, and new technology. Regions, cities and nation develop faster where the institution lead in knowledge and technology. No society, region or nation prospers without good research. Research earns more money, more endowments, name and fame for HEIs.

Internal Institutional Research (IR) system is also an important function for the development of HEIs credential & effectiveness. IR is important to both private and public institutions, but often not well understood by those outside of academia. Ideally, the function of IR at academic institutions is to provide administrators with the data they need to make more informed decisions. IR helps institutions engage in a self-study process so they are better able to identify their strengths and

weaknesses. Some teachers of HEIs are doing research for the social purpose as well as well being of the nation with that effort they make his presence at global level through their research effort, *that's why the HEIs also considered as the plate-form of the research and development.*

#### IMPLICATIONS OF RESEARCH ON HIGHER EDUCATION INSTITUTIONS

One of the major difficulties in the universities of the developing world is that they retain strong teaching functions and weak research functions. Research is not yet seen as an integral part of the responsibilities of the academic staff. Therefore, there is a need to evolve a research culture in the universities. This can happen only when the universities themselves see their role as teaching and research institutions.

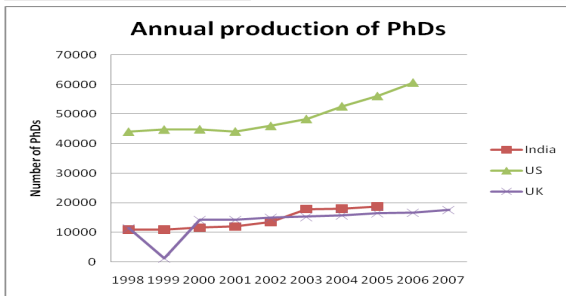
Another problem faced by some of the institutions and countries in the developing region is the migration of academic staff to other sectors or to other countries. This has severely affected the national research capacities (Altbach, 2003).

Governments are not willing to expand or invest more in the public sector in higher education. In fact the fastest growing sector is private higher education. Very often private universities are teaching institutions relying heavily on part-time teachers, but sustainable model of research capacity development requires an expanded higher education system with more graduate study programmes and the creation of a research environment at the institutional level. Implication of global shift; universities in India are observed to be inward looking and not having adequate interaction with the world outside. They do not have connection, as much needed with their counterparts abroad. They do not have vision to help industry to win global market. They teach irrelevant knowledge from self, mostly yesterday's knowledge today, coming from abroad. Very few institutes like IITs, NITs and IIMs are engaged in research. So their standard is high, hence preferred. However, by world standards they too are behind. Vast majority of the college do not have infrastructure and technical capability to conduct research and innovation in efficient manner. Colleges are mostly producing graduates as technology follower not leaders. Graduates get employment like soldiers at best in multinationals. But they are expected to produce captains to lead in industry on national and global planes. Primarily, it is on account of lack of research and innovation in colleges that the quality of education by global standard is poor.

Integration of education and research with industry is required; In order to become a significant economic power, it is essential for India to restructure its higher education without future loss of time and integrate the same with indigenous research. Though a large number of engineers and technicians come out from engineering college every year, yet the scientific and technological achievements of India bear no relation to the vast number of skilled and trained personnel. The quality as well as relevance of education by world standards is missing. It is seen on one hand *that many engineers are unemployed and on the other hand engineers with specialized skills are not available.* There is a mismatch. What is wanted is not taught and what is taught is not wanted. It is essential for India to integrate education with research and industry.

Shortage of research and innovation skills; the key factor behind unemployment is insufficient research and insufficient innovation. Shortage of people with innovation skills is a major barrier in professional development. HEIs therefore should have to resort to these new strategies to induct research and innovation skills in economy.

Comparison of annual production of PhDs in selected countries (1998 to 2007)



Source: NIAS-INFLIBNET-TCS Project, 2010

Commercial exploitation of research findings is our weakness; an invention when exploited commercially is known as innovation. Research conducted in HEIs for UG, PG and PhD often result in publication. This is good but better, if it will be exploited commercially. Unfortunately these remain on shelves of library. No conscious effort is made to obtain economic value from them, mainly because vision and commitment in this direction is lacking. Students today do not get opportunity to learn to convert invention into usable goods and services. Quality of research improves when it results in commercial use. Wealth of a nation is vested today in doctoral research done by scholars. Japan produces 28 PhDs per million population, USA 30, and India only 0.45. The acquisition of skills for commercial exploitation which is the demand of time is lacking. Non availability of finance for innovation is the major barriers in commercialization of new technology.

## CONCLUSION

It is important that researchers are rewarded enough to keep them in this sector. Given the salaries, adequate incentives for research staff become crucial for retaining them. Moreover, developing countries, especially in the African region, are experiencing very low GER. The experience of Ireland in

the late 1980s and India in the late 1990s shows that a reliance on the Diaspora (movement, migration or scattering of people from one location) can be a reliable source to create research facilities establish academic linkages and mobilize funds to strengthen institutional research capacities in developing countries. The fact that the market for research is relatively under-developed in low income countries the state needs to be proactive in the initial stages in investing in R&D; creating a research environment and training researchers.

The research function of academia remains a prime source of knowledge and innovation at national, regional and international levels. Yet, over the past decade, most industrialized states have been obliged to address the double challenge of providing wider access to post-secondary education and training and ensuring adequate investment in high-level research.

Governments pursue reforms to build world-class systems of higher education, which assure quality in both research and teaching. In contrast, the term "World-Class University" tends to denote research-oriented institutions, although this should also recognize those who achieve excellence through innovative approaches to learning.

National knowledge commission report [2006-07], to make India competitive has prescribed conduct of research, innovation and creativity in colleges. It said multifaceted units like Research Park, innovation centre, incubation centre, patent centre, entrepreneurship centre, and venture capital should become the integral parts of HEIs. They constitute the infrastructure for research and innovation.

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