Preface

EVOLVING CORPORATE EDUCATION STRATEGIES IN DEVELOPING COUNTRIES: ROLE OF UNIVERSITIES

The book is inspired partly from my experience in university outreach programmes, open distance learning, corporate education, natural science education and research; partly from some of the observations made by experts on Indian University education like - though one can see the rapid developments that are taking place in the society around the university in India, the universities themselves changed little and even declined in their academic environment; universities producing unemployable graduates; rigid disciplinary boundaries; university education not being relevant to the civic society issues; need for preparing the students for real world issues and the like; and partly from the literature on developments in tertiary education systems and some models already developed like outreach and engagement, triple helix, centres of excellence, professional education programmes of USA, community colleges, regional innovation systems and the like.

The purpose of the book is to propose strategies for professionalizing university education gearing them to suit the needs and demands of the 21st century knowledge society just like the evolution of education institutes of 19th century according to the experience and need of that century’s society. There is a need to develop suitable models for a particular country or even for a particular context. It is in this context this book titled ‘Evolving corporate education strategies for developing countries – Role of universities’ can be claimed to be highly relevant and useful for developing countries that may be planning to rejuvenate and renovate higher education to the present century’s needs and demands. The overwhelming response to the call for chapters and the people who contributed suggests the interest in the topic. The scope is far wide and there are many things which are not covered in the book. However, the readers can benefit when they understand the concept behind each chapter or chapters of their interest and apply for their own situation. For instance, a non-biologist may also be able to derive some benefit when he reads the chapter on preparing professionals in natural sciences and multi pronged distance education as the concept behind the chapter is very general and applicable to other fields as well. I acknowledge the cooperation and enthusiasm shown by all contributing authors. I am also grateful to them for agreeing to get their chapters reviewed and for taking advantage from the reviewer comments. Each chapter was blind reviewed by 2-3 experts and all the chapters underwent at least one revision.

The book is divided into four sections.

The first section, consisting of six chapters, intends to provide a basic conceptual background to set the tone for other sections. It explains the concept of corporate education and knowledge economy in brief. The academia can have wider debate on corporate education since corporate education often misconstrued as part of management education. Other concepts like the difference between corporate training and corporate education and use of management education for evolving corporate education
are discussed in separate chapters. Since universities and academia have to take a leader role and treat corporate education in a holistic way just like university education, the book discusses the importance and the essentiality of basic research for sustainable development in higher education and its relation to corporate education taking the example of pharmaceutical education. Another important concept which is useful for both corporate bodies and universities is interaction and collaboration with other players in the society. This concept is discussed taking the example of NGOs for developing corporate education to benefit a region including rural areas. The last chapter reviews various approaches and dimensions of integrated and interdisciplinary learning which is necessary for real corporate education.

The second section deals with the topic of bridging academia and industry divide in human capital development. The first chapter of the section sets the tone by discussing multifaceted industry-academia collaboration. It examines ways in which industry and academia collaboration can happen keeping in mind the current generation of graduating students, current business needs and global market competitions. Chapter 8 analyses the human capital challenges of power sector while giving a general account of preparing engineering graduates. This may give the reader an idea of how and what strategies one can follow to overcome the problem of unemployable graduates. It is applicable to other fields as well. Another important aspect of academia-industry divide is non-delivery of desired results by highly promising fields like biotechnology. The chapter on biotechnology education and training examines certain problems and possible remedial measures, in order to deliver to the society the full benefits of the myriad developments in modern biotechnology. Similarly nanotechnology, an upcoming and exciting field with application in wide array of sectors crossing many disciplinary boundaries forms a suitable example for discussion. The chapter on nanotechnology explores the various applications in different fields like electronics, agriculture and medicine. It discusses the opportunities and obstacles that one may face in dealing with this kind of highly application oriented subject and in professionalizing university education. The next two chapters of the section discuss some of the examples of universities taking initiatives in professionalizing education. One chapter discusses some of the initiatives at a rural centric state University and a newly commenced Central University, wherein they could join the reforms to rework the model of the higher education. The last chapter of the section discusses corporate education initiatives in one of the oldest university of India. The chapter provides some practices in use by an Indian university to promote corporate education benefitting all stakeholders including students.

Some of these examples show how universities can play a crucial role in bridging industry-academia divide. People from various backgrounds and various industries/universities can take the benefit of the chapters covered in this section.

One of the advantages of the countries like India and developing countries is the huge manpower available in the country. However, this resource is not used by them very effectively as these countries often encounter with many issues in higher education and wrongly focus on numbers than on the professionalization of education. In order to suit the demands of knowledge society and knowledge economy, the universities need to prepare the manpower not only for academic fields but also for non-academic fields. The next section of the book focuses issues related to preparing professionals for various fields.

The section specifically focuses on some case studies of industries and academia. The section starts with a chapter on the experience of fresh PhD graduates in starting their own enterprise. They discuss the issues a fresh biotechnology graduate (with PhD) may face to establish his own enterprise. It is an interesting case study in the context of developing countries. Similarly, skill development of manpower for food industries is crucial in Indian context (as food processing industry is one of the major industries of the country). It covers various aspects including the present status of the food industry and
its scope in India, and the current education system of food science and technology, the gaps between capacity and industry needs, and a way forward. The case can help other industries as well in developing strategies for skill development. The chapter on preparing professionals in cancer therapy is a case study which other researchers and educationists in different fields can take a cue for preparing the large pool of unemployable graduates from different disciplines for working in a specialized area. Similarly, the chapter on microbiology for biotechnology industry discusses strategies on how one can prepare graduates for corporate education for working in non-academic sectors (like industries). The chapter on university outreach in management education is an example to show how linker units at field and at university (NGOs at field level and outreach centre at university level) help in successfully preparing professionals at field level. Another example from which any industry and academics of any field can derive benefit is preparing graduates for banking industry. The case study on power system operator certification is a specific case. It provides an example of how the critical changes that have taken place in the commercial environment of power system operators, both at the system operation level as well as in generation operations, affects their day-to-day employment. The whole section gives a number of examples from which the reader can derive benefit by analyzing his/her own situation.

Another important aspect of knowledge society is the growing realization of the changing paradigm of knowledge production. Knowledge is not produced at one place or by one player. In other words, universities cannot consider themselves as the sole players of knowledge production. They (universities) need to interact more closely with all the stakeholders of higher education. They need to play a captain’s role. Section four of the book focuses on this aspect by discussing some of the developments in tertiary education system which can help in evolving strategies for corporate education. It covers outreach and engagement model, ICT for corporate education, multipronged distance education for professionalizing natural science education, integrating corporate education in Malaysian higher education, and professionalizing university education through internalization of quality culture.

The first chapter of the section proposes approaches for implementing university outreach and engagement for corporate education in the Indian context. It provides an example of how a backward area is turned into a prosperous area using the tenets of community engagement using outreach and engagement concept. The discussion of the case features three lessons that have the potential to inform corporate-university partnerships in contexts outside the US. The next chapter taking the experience of Infosys Limited, the IT corporate giant of India, discusses the role of universities in using modern technologies like ICT for evolving corporate education. It provides an innovative model which the universities could adapt and revolutionize the higher education. The chapter on integrating corporate education in Malaysian higher education discusses the experience of a Malaysian University (Open University of Malaysia) giving a clear example of how universities particularly open universities can play a crucial role in evolving corporate education. The chapter on professionalizing Natural Science education explains how various developments in tertiary education can be used for a multipronged distance education which in turn can help in evolving strategies for corporate education. The need for integrating various disciplines, attitudes, and attributes is also discussed. Another important strategy discussed in this section is developing internal quality culture for professionalizing higher education. It explains how the ecology of an institute influences its quality. It also discusses how internal quality culture can help these tertiary education institutes to tune themselves to the needs of knowledge society including corporate education.

The book covers both theoretical and practical aspects in evolving strategies for corporate education with particular reference to the role of universities. The book will be of immense practical use for the
university authorities who wish to prepare their students professionally in different fields covering arts, science, humanities, and engineering. It is useful to industry personnel who wish to have close interaction with academia for developing their workforce. Similarly, the book will be helpful for the policy makers to develop a policy for a new model for their particular country or context as it covers various developments in higher education which can help in alleviating some of the long standing problems. The academics in general may get an idea on treating their subjects differently to make the disciplinary boundaries more porous and to prepare the students professionally to deal with the real world issues and preparing them for both academic and non-academic careers. They can take the help from the examples and subjects discussed in the book.

The fact that the contributors of the book are highly placed and senior people covering both academia and industry ensures that it deals with some of the relevant practical and field level realities with a strong theoretical background. While some of the contributors have both industry and academia experience, some others introduced some innovations in university education to reach out to society. The contributors include professors, researchers, vice chancellors, pro-vice chancellors, vice presidents of industries, Senior Engineers, Chief executive officers, and self employed entrepreneurs.

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