CHAPTER-3
RESEARCH
METHODOLOGY
3.0 Introduction

On the basis of understanding regarding GATS and universities in India, various issues have been considered for this study. The review of literature in the previous chapter helped in gaining knowledge and insights on similar and related research work undertaken on this subject. Further, this has helped in identifying the gaps in research undertaken so far on higher education in India and emerging scenario of post GATS, thus the review has facilitated the formulation of objectives of the present study. The same are presented in the following paragraphs. Before discussing the detailed research methodology, it is necessary to clarify meaning of some of the terms used in the study. This is done in following paragraphs.

3.1 Conceptual framework of the terms used in the study

Higher education means programmes of study, training or training for research at the post secondary level provided by universities or other educational establishments that are approved as institutions of higher education by the competent state authorities, and/or through recognized accreditation systems. This includes undergraduate and post graduate study. This may be imparted through regular programme, part time evening programme or even by distance education mode.

Research within the context means original scientific, technological and engineering, medical, cultural, social and human science or educational research which implies careful, critical, disciplined enquiry, varying in technique and method according to the nature and conditions of the problems identified, directed towards the clarification and/or resolution of the problems, and when within an institutional framework supported by an appropriate infrastructure. Research is an important element of higher education. Apart from helping to solve problem, it also aids in making teaching effective.

Scholarship means the processes by which higher education teaching personnel keep up to date with their subject, engage in scholarly editing, disseminate their work and improve their pedagogical skills as teachers in their discipline and...
upgrade their academic credentials. This may include attending seminars, workshops, symposium, training programmes and refresher courses.

Extension work means a service by which the resources of an educational institution are extended beyond its confines to serve a widely diversified community within the state or region regarded as the constituent area of the institution, so long as this work does not contradict the mission of an institution. In teaching it may include a wide range of activities such as extramural, lifelong and distance education delivered through evening classes, short courses, seminars etc. In research it may lead to the provision of expertise to the public, private and non profit sectors, various types of consultation, and participation in applied research and in implementing research results.

Institutions of higher education means universities, other educational establishments, centers and structures of higher education, and centers of research and culture associated with any of the above, public or private, that are approved as such either through recognized accreditation systems or by the competent state authorities. This also includes institutions of national importance for teaching.

Higher education teaching personnel means all those persons in institutions or programmes of higher education who are engaged to teach and/or to undertake scholarship and/or to undertake research and/or to provide educational services to students or to the community at large. This may be designated as lecturer/ Assistant professor/ Reader/ Associate professor/ Professor/Research Scientist etc.

3.2 Need and focus of this study

The education is a fast growing service in India and it is going to increase in future as well. It is also a strategic industry as it cultivates human mind and makes them important and useful players in the economy of a nation. It improves the skill and capacity of individuals. Throughout the world education has been mainly a government supported service. But in recent times things are changing. Increasingly larger number of nations, as a consequence of the impact of liberalization of trade, is in favour of expanding education through private sector participation. The role of the government is being reduced due to entry of private institutions of higher learning. This is true in case of higher education in India also.
For any country education has always remained a means of improving quality of its people and its responsibility has rested with the government. In India too education has been provided by government as a public service. Education is on concurrent list of subjects and both central and state governments legislate on education. Education is foundation to democracy and good life to individuals and their families because of economic advantage it brings through gainful employment. The Indian higher education structure, with all its weaknesses and enormity, is still well knit, well spread and is a sound system. In the wake of emergence of knowledge based global economy, it is imperative to develop higher education and research institutions to gain competitive advantage in international trade, however it will require huge expansion if quality higher education is to reach larger population.

In the wake of need to provide higher education to larger population and scarcity of resources faced by government, participation of private institutions has become imperative. Further liberalization through complete compliance of GATS in higher education service will expose higher education sector to opportunities and threats of international trade as well. The report of knowledge commission set up by government of India has recommended setting up of new 1500 universities to impart higher education in the country. In February 2007 the ministry of human resource development has also recommended 50 percent FDI in higher education in partnership with domestic universities in the country. Thus this study focuses on likely impact GATS will have on Indian higher education in general and universities of Gujarat in particular. The question therefore is how Indian universities are going to tackle GATS issue. Whether GATS will be an opportunity or threat to Indian universities and what is the preparedness of universities of Gujarat for facing these challenges in GATS era.

3.3 Objectives of the study

Under the liberalized environment, as the higher education system moves towards less governmental intervention and regulation, doubts are raised about the competitiveness of the Indian higher education system by quarters concerned with the future directions of higher education system in a liberalized and global framework. Such analysis can provide valuable information for undertaking appropriate measures to enable the higher education sector maximize its gains from trade liberalization and minimize threats.
To undertake such a study first of all it is necessary to know what WTO and GATS are? What is the purpose of their establishment and how do they carry out their work? Thus our first objective of the study is to know the key provisions of WTO/GATS with regard to higher education. This can be done with the help of modern information superhighway (Internet) easily. Universities have been working as centers of human resource development for the nation even before the independence. After independence there is quantitative expansion of universities across the country but it is necessary to know how they have performed to develop human resources? Thus our second objective of the study is to ascertain this. Universities are regulated by government. Till now generally they operated in a protected environment but now time has changed. Under GATS era it will face competition from foreign universities. Opening up higher education of India to GATS will have both positive as well as negative impact. Our third objective therefore is to know specifically impact of globalization on universities of Gujarat. To compete with foreign universities it is necessary that existing employees (both teaching and non-teaching) are trained appropriately to develop necessary skills. This will help to provide better service to consumers (students). Thus our next objective is to assess training needs of human resources of universities at various levels in the wake of globalization. In order to beat the opponent it is necessary to do ones own analysis of self and the environment. Thus it is necessary to do proper analysis of universities and this will be done by one of the objective of this study i.e to carry out SWOT (strengths, weaknesses, opportunities, threats) analysis of Indian universities with special reference to universities in Gujarat. Exploring all this objectives (both by primary and secondary data) through appropriate questions will give us some findings which can be addressed to policy makers for implementation. Thus our final objective of the study is to recommend policy implications on the basis of conclusions of the study.

Thus, the objectives pursued are specifically mentioned below.

1. To study the key provisions of WTO/GATS with regard to higher education.
2. To study the performance of Indian universities as center of human resource development.
3. To study specifically the impact of globalization on Universities of Gujarat.
4. To study the constraints faced by the universities.
5. To assess training needs of human resources of universities at various levels in the wake of globalization.
6. To carry out SWOT analysis of Indian universities with special reference to Gujarat and
7. To identify competencies required by the universities to cope with the changing environment and recommend policy implications on the basis of conclusions of the study.

The above objectives have been attempted in this study by adopting following research methodology.

3.4 Research Methodology

The organizations that have been selected for this study are as under
1. The Sardar Patel university (SPU), Vallabh Vidhyanagar
2. The M.S.University of Baroda (MSU), Baroda
3. The Gujarat University (GUJ), Ahmedabad
4. The Saurashtra University (SAU), Rajkot
5. The Acharya Hemchandracharya North Gujarat University (NGU), Patan
6. The Veer Narmad South Gujarat University (SGU), Surat
7. The Bhavnagar University (BHU), Bhavnagar
8. The Anand Agricultural University (AAU), Anand

The universe of this study is the teachers and administrators. The term administrative staff includes The Vice Chancellor, The Registrar. The term teachers include Lecturer/Assistant Professor/Associate Professor/Professor/Assistant research scientist/Associate research scientist/Scientist. This selection of respondent has been done on the consideration that they make sizable and important proportion of total staff of university. Moreover administrators hold important positions and are decision makers for the university. Therefore they are selected.

There were thus two different types of respondents. The administrators and the teachers. Eight universities of Gujarat were selected for study. All the administrators (The Vice chancellors and The Registrars) were selected for the study. Two different types of questionnaires were prepared. One for the Vice Chancellors and the other for the Registrars. This was sent to The Vice Chancellors and The Registrars of all eight universities.

The choice of respondents from the teachers for the study from these universities has been done in a way so as to include teachers of all types of faculties.
This has been done to get better and proper representation of teachers of all types of faculties. In each university 50 questionnaires were sent. This includes 10 for professors or equivalent, 20 for readers or equivalent and 20 for lecturer or its equivalent. The choice of respondent was made taking into account the criteria of willingness to share information, possibility of follow up visit, and cross section of various fields. It was possible to get responses from 150 teachers. It was not possible to get even a single response from the administrators despite two attempts. The data have been analyzed in totality providing scope for depth of analysis, along with the breadth of various aspects connected with GATS and its likely impact on universities.

3.5 Statistical Analysis

Statistical methods are a mechanical process especially designed to facilitate the condensation and analysis of the large body of quantitative data. The aim of statistical method is to facilitate better comparison, study relationships between the two phenomena and to interpret the complicated data for the purpose of analysis.

Following statistical analysis of data have been carried out.

(i) Awareness level of all respondents about the key provisions of WTO/GATS with regard to higher education sector was ascertained. This was found out based upon number of positive response by respondents to the questions related to GATS.

(ii) Proportion analysis is carried out by finding out the order of rank provided by respondents to different options for closed ended questions.

(iii) Analysis was done to ascertain difference between the proportions among all universities. This was facilitated by calculating Z value by two tailed test of the difference between two proportions at the 0.05 level of significance. If there does not exist any difference between sample proportions then in the tables ‘ND’ is written. If difference exists but if it not significant then only value is indicated. If significant difference exist between sample proportions than it is indicated by symbol (*).

(iv) The significance level was ascertained (i.e how much significance respondents from one university gives to a particular function compared to respondents from other universities) between the universities based upon Z value. This was done by analyzing Z values between the universities which shows significant difference. The values are indicated in tables. The comparison was done one by one between all the universities.
On comparison between universities, if respondents from a particular university give higher significance to a function as compared to other, then it will be indicated by a positive value and vice versa if giving lesser significance. This significance level is indicated below each Z value table as interpretation by indicating ‘>’ or ‘<’ sign as the case may be.

Following abbreviations are used in all Z value tables.

ND = No difference at all between proportion

*= Significant difference between proportion

For indicating the name of university, its abbreviated name as shown in the introductory paragraphs of research methodology has been used.

3.6 Research Design

Universities carry out diverse functions of teaching, research, extension. Each university comprises a large number of departments/affiliated colleges. It is not a closed system but an open one, with several variables internal and external interacting with each other. Opening up of higher education of any country to GATS is a highly debatable issue. GATS is a new phenomena for Indian Universities. Given the complexity of the process and lack of specific research in the area in terms of its impact, the purpose of this study was not restricted to verify any hypotheses, but to provide a platform on which a future hypothesis could be generated. Therefore such a study necessarily had to be exploratory and descriptive in nature.

3.7 Instruments used for data collection

Well structured questionnaires were used for data collection. Both broad open ended and closed ended questions were used for the purpose of flexibility. The terminology used in the questionnaire was adapted to that of the respondent so as to ensure that the questions were fully understood. For each university three different questionnaire were used. (i) For The Vice chancellor, (ii) For The Registrar, (iii) For teachers. Each questionnaire was divided into several parts covering questions related to different objectives of the study. Apart from some common questions, the vice chancellors questionnaire contained questions related to policy making. The registrar’s questionnaire contained questions on administrative aspects.

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3.8 Scope and limitations of the study

The study was restricted to Gujarat. From Gujarat all the traditional universities were selected for the study. From professional universities, only one Anand Agricultural university was selected due to location advantage. The time period of study was between 2003 to 2006. The number of respondents from each university did not remain same for all the universities. It was not possible to get responses from the administrators despite two attempts. Looking to the location of universities at different places, a constrain of mainly time and other resources also affected the study. The limitations could be listed as follows

1. The study was restricted to only universities totally controlled by government. The private universities which are given status of deemed universities were not covered.

2. The teaching staff of self financed colleges which are affiliated to government universities were not willing to share their views (due to official reasons), hence cannot be made part of the study.

3. The study mainly concentrated to obtain data from teaching and administrative staff only excluding non teaching staff.

4. Besides repeated efforts, it was not possible to get responses from administrative staff (The vice chancellors and the Registrars). If it would have been possible then it would have considerably enriched the study.

5. The questionnaires were personally distributed in sufficient numbers to teaching staff in all the universities. The return rate from the universities was very less. Due to location of all the universities very far from each other, it was very difficult to personally collect the questionnaires repeatedly.

6. Majority of respondents have also shown their reluctance in answering open ended questions. If done so, it would have been better for the study.

3.9 Chapter scheme

The study has been divided into separate chapters. The first chapter of introduction gives overview of various topics related with the study viz Human resource management, Human resource development, GATS, Universities etc. The second chapter of review of literature provides highlights of the literature referred from the library as well as Internet relevant to the study. It covers topics related to
GATS and its impact on universities. The third chapter of objective and research methodology lists the objectives and describes the rational for its choice. This chapter also describes the meaning of various technical terms used in the study. It also describes at length the research methodology used which covers selection of sample from population and manner of conducting the study. As the study is related mainly to ascertain impact of GATS on universities of Gujarat, a separate complete fourth chapter is devoted to GATS. This provides a glimpse of the GATS Agreement highlighting several of its important provisions and its likely impact on higher education. The other chapters are arranged as per the objectives of the study. The last and the final chapter is of summary and recommendations. This chapter provides major findings in the form of summary and derives conclusions based on the study. It also provides major recommendations with regard to managing higher education in GATS era.