The Indigenous Research and Development (R&D) is very essential for the economic development of the country. The Research and Development being a vital activity has to be undertaken from the initial stage itself, in any organization, and by according it a special status and also appropriately integrating it in to the overall organization.

However, it seems that, where substantial R&D is taking place, its management is not as much scientific or effective as it could be expected. This phenomenon is, at times, attributed to the cultural factors. The Government policies in the past were highly regulatory and protective, which in a way failed to motivate R&D, and did not stimulate any major improvement in productivity or quality. Now the scenario has changed totally, and the current situation of global setting and economic liberalization, is posing greater threat to the Indigenous R&D, and it appears that in the ultimate reality the Indian R&D is striving to cope up. Thus the R&D management assumes critical importance today.

Typically the ways in which research output may be evaluated is with reference to output-input relationships that depend on the measurement of the amount and economic value of R&D outputs or as the effectiveness of the R&D program. The measurement of the economic value depends on the valuation of the technology. Further, the R&D Productivity parameters in case of R&D Institutions could also be in terms of increased market presence and increased market share, in general, and technology development, in particular. The R&D output as technology asset could be expected to create a barrier to the entry of other firms into the organization’s business. In addition to patent protection, other forms in intellectual property such as copyrights, particularly of computer software, also are quite essential – hence usable as a good measure.

The Indian Telecom R&D traditionally was a part of the single mammoth service provider with in the Government, the role and contribution were not adequate enough and hence massive imports were taking place. Then there was R&D set up available in the country with another giant manufacturing set up also under the same Government
ministry. This lead to a kind of monopoly situation and the costs of Telecom equipment and service were prohibitively expensive. At this juncture a new out fit was created – though with in the Government frame work itself, but with a clearer mandate and good amount of autonomy. This new R&D set up revolutionized the way R&D is done and focused on mass deployment of Telecom products all over the country – which were very cost effective and also reliable. The socio economic changes and impact brought in by this set up were a phenomenon. Now, of late, with the sweeping changes that have come in the Telecom sector both technologically as well as politically as policy changes, this set up is facing challenges: putting it differently, the trends of Mobile and WiLL phone presence vis-à-vis land line (where the organization’s core competences are) and the approaches with in the Organization to cope with the current situation are the challenges faced. The economic liberalization brought in 1991 also had impacted the Telecom R&D.

It appears from the available Literature that no real synergistic approach is in place and as it seems that the R&D Management has not been studied from the R&D perspective per se and as a means in improving the organizational effectiveness of R&D Institutions, it was felt necessary to arrive at an overall approach to study the situation in totality. Hence this study focuses on the domain of IT/Telecom and R&D Management there in, on the parameters that influence organizations’ effectiveness and suggest a possible Model(s) such as the “Pyramid of Success”, and to evolve a set of possible suggestions that help in improving organizational effectiveness of the R&D Institutions – through an integrated approach.

**Presentation of the Study**

The Study has been divided in to Five Chapters as follow:

**Chapter 1 Introduction:** In this chapter the back ground introductory information relating to the concepts of R&D, R&D Management, R&D in India, Economic Liberalization, its effects and aftermath, Review of Literature, Objectives and Need of the Study, Methodology etc., are discussed. The Ethnography approach and the Confidentiality Requirements are also discussed.
Chapter II An Over view of the Domain: In this Chapter the IT/Telecom domains are discussed and analyzed in detail. The Sample Organization(s) are also discussed. The Profiles of the subjects are also presented.

Chapter III Pyramid of Success: In this Chapter the details of the study undertaken, with an attempt to examine the R&D and R&D Management from the general standpoint and the various factors identified therein that affect management of R&D and the suitable remedial steps that were arrived at are presented. Further, the suggested simple model, depicted as the “Pyramid of Success”, for efficient and effective management of R&D at the Organizational level, are also discussed. Some aspects such as Conducive Environment for the R&D are also highlighted.

Chapter IV An Integrated Approach: In this Chapter the Integrated Approach for improving the effectiveness of the R&D Institutions is presented and the influencing factors like Business Orientation, Quality, Innovation/IPR, and Service attitudes that need to be in-built in to the work culture and the factors relating to Technology, People and Processes are also elaborated. The aspects about the various organization structures, performance measurement and role played by the appropriate review mechanism and other relevant areas of general concern are also presented. A brief comparison with other organizations examined is presented.

Chapter V Conclusions: In this final Chapter, Summary and the results of the study are outlined based on the critical analysis of the primary and secondary data. Conclusions drawn from the present research work are also presented, which are expected to serve as the suggested practical guidelines for R&D Management in improving the Organizational Effectiveness of Research & Development Institutions, as an integrated approach; which is expected to be portable across any domain.