TECHNOLOGY TRANSFER IN GOVERNMENT
RESEARCH INSTITUTES: A CASE OF
INDUSTRIAL TECHNOLOGY INSTITUTE

Chandana Liyanage

A Dissertation submitted in partial fulfillment of the requirements for the degree of Master of Business Administration

Department of Management of Technology
University of Moratuwa
Srilanka

July 2008

91199
Abstract

In recent years technology has become not only an important dimension of national development and growth but also essential for survival in this competitive world. Consequently, development and transfer of new technologies has become an activity of local attention and a force to reckon with. Industrial Technology Institute (IT!) successor to Ceylon Institute of Scientific and Industrial Research (CISIR), country's premier multidisciplinary R&D institute had started development transfer of technologies since 1955. Each year research institute develops many new technologies. Understanding the process of developing and bringing new technologies to market is important for researchers and managers of research organization.

However, technology development & transfer did not attract due attention of the industry. The report presents findings of case research undertaken to study the status of new technology transfer in the institute. The focus is on the technology transfer practices and their success in terms of the degree of success & rate of success in technology transfer & technology commercialization. The barriers and facilitators existing for the transfer of new technologies are also identified. The IT! case study is based on a structured questionnaire followed by interviews with IT! staff specially who had worked on the development and transfer of the technological innovations. Most, but not all, of these are or were in the research divisions so that more research view could be obtained than a general one. With the support of secondary data, findings were inspected to see whether some common patterns and common factors & facts could be recognized and arrived at some views and suggestions and not at hard and fast conclusions or rules of conduct. The technology transfer process of the institute has in most instances been on a non-exclusive basis on a contractual know-how agreement, with the institute retaining the right to transfer the technology to more than one industrial enterprise. Success rate in technology transfer is 70-75% & technology commercialization is 30-35%. Personnel approach of technology transfer is predominant in the institute.

Main income comes in commercial mode of transfer such as contract research, consultancy & testing services. Training, publications and seminars are main modes of non-commercial technology transfers. Technology transfer companies are there in micro level. But direct & indirect spin off are relatively low. Patenting of inventions is common as an intellectual property (IP) protection. But the institute does not have an IP policy to address main issues related to IP. Cuts between technology development & technology transfer is high and institute currently has many problems in scaling up of technologies. Technology valuing is not taking place in a established criteria and effectiveness of technology transfer is
mostly measured on the basis of technology get transferred to an organization or not, not on the basis of commercial success of the technology. Research staff is more towards technology development than technology transfer and they lack knowledge & skills of marketing, business & negotiation skills. For better exposition the presentation is divided into sections dealing with introduction, literature review, methodology, study findings and is summed up with including marks and recommendations.