

**PERFORMANCE MEASUREMENT:
A CASE OF GOVERNMENT FUNDED R&D
ORGANIZATIONS IN INDIA**

by

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Submitted
in fulfillment of the requirements of the degree of
DOCTOR OF PHILOSOPHY

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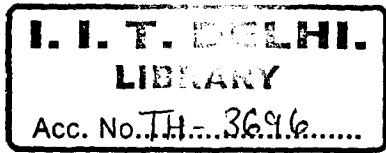
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The thesis entitled “**Performance Measurement: A Case of Government Funded R&D Organizations in India**”, being submitted by **Ms. Jyoti** to the Indian Institute of Technology, Delhi, for the award of the degree of Doctor of Philosophy (Ph.D.) is a record of bonafide research work carried out by her. She has worked under our supervision, and has fulfilled the requirements for the submission of the thesis which has attained the standard required for a Ph.D. degree of this Institute. The results presented in this thesis have not been submitted in part or full to any other University or Institute for award of any degree or diploma.



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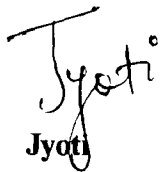
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ABSTRACT

In today's highly competitive market and turbulent global environment, achieving and sustaining technological excellence is the prime objective of not only of organizations, but also of the Nation. In this era of globalization and tough competition, government funded R&D organizations in India are under pressure to perform not only efficiently, but also effectively. Moreover, national policy makers in India have realized that the R&D performance of India has not been up to the benchmark. As public money is invested in these organizations, they are accountable to the society for their performance. If the government funded R&D bodies in India do not reorganize themselves to face globalization and global competition, then they risk becoming irrelevant to the mainstream activities of industrial development. But India, however has the potential of converting its strong R&D infrastructure into a global research, design and development platform. Moreover, the government agencies are planning to reduce the grant-in-aid given to the government funded R&D organizations. The budget allocations to organizations would be linked to their performance as determined by a set of agreed output performance parameters with time dependent weightages.

This study has been focused on the government funded R&D organizations in India. The study has been carried out in eight government funded R&D organizations in India with the objectives as to: i) develop the performance measurement models for government funded R&D organizations; ii) identify the critical success factors for the select Indian government funded R&D organization to focus upon for better functioning of their organizations; and iii) understand the inter-relationship of various factors impacting the performance of government funded R&D organizations in India.

The study has given a framework for developing the multiple-criteria for evaluating the performance of government funded R&D organizations, a framework for comparing the performance of government funded R&D organizations in terms of their relative efficiencies, a framework for ranking the government funded R&D organizations. Moreover, through this research, four factors as top management commitment (TMC); organization culture and human resource focus (OC); R&D project management skills; and customer focus and market orientation (CF) have come out to be the critical factors to be focused upon by the government R&D organizations in India in order to improve their performance.

The study is likely to be useful for the national policy makers, the government science and technology (S&T) agencies in India and the R&D practitioners for implementing the performance measurement model in real practices in their organizations to assess the level of their performance against the benchmark organizations globally and the directions for improvement and designing their strategies. The study provides useful directions to the academicians and researchers in investigating issues related to performance measurement of government funded R&D organizations, thereby extending the knowledge base in this area.

Keywords: R&D management, Performance measurement, Critical success factors, Government funded R&D organizations.

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