ACCOUNTING FOR RESEARCH AND DEVELOPMENT EXPENDITURE IN THE CORPORATE SECTOR – THE INDIAN PANORAMA

ADDENDUM

UTTAM KUMAR DATTA, M.Com., L.L.B., AICWA
SENIOR LECTURER IN COMMERCE
SREE CHAITANYA COLLEGE OF COMMERCE
HABRA, NORTH 24-PARGANAS
WEST BENGAL
INDIA

A THESIS SUBMITTED TO THE UNIVERSITY OF CALCUTTA FOR PH.D. DEGREE
ACCOUNTING FOR RESEARCH AND DEVELOPMENT
EXPENDITURE IN THE CORPORATE SECTOR -
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ADDENDUM

This addendum is for dealing with certain points raised by the learned Indian Examiner Dr. C.M. Muniramappa, Professor - Emeritus. We are grateful to Professor Muniramappa for examining the thesis with meticulous attention and for putting forth suggestions the compliance of which will improve the technical side as well as the standard of the thesis.

The points to which our attention has been drawn are:

(i) typographical and grammatical errors in some pages;

(ii) no mention of hypothesis, objective, methodology, scope, scheme and limitations of the work;

(iii) absence of literature survey;

(iv) absence of any comparison between public and private sector companies in respect of Research and Development practices and their accounting systems;

(v) absence of discussion, though very briefly, on the cost and benefits of Research and Development to a company in different forms;

(vi) finally, the absence of focus on the defects of the present accounting system of Research and Development.

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In the paragraphs that follow we are making an attempt to rectify these omissions.

Re. Point (i) Typographical and grammatical errors:
Mistakes have been rectified and grammatical errors have been covered up in the copy of the thesis submitted along with this addendum.

Re. Point (ii) Hypothesis:
Research and Development costs satisfy some of the criteria for identifying the same as an asset. It also satisfies some of the benchmarks of treating its cost as an expense. There are also some traits in the same making it vulnerable for deferral over a period of time.

In the present exercise the hypothesis relating to the Research and Development costs and its accounting treatment has been that the present accounting practice relating to the same is to treat it as an item of expense.

This hypothesis has been examined in its entire expanse in the different chapters of the thesis especially in chapters VI to VII.

Objective of the Study:
Expenditure for Research and Development in the business and industries in India are on the increase from year to year. From the nature of these expenses and the time of their incurrence, it is apparent that accounting treatment may pose
some practical difficulties and wide divergence may be noticed between inter and intra industries. It is because of these difficulties that the accounting for Research and Development costs has become a subject matter of wide controversy. Three methods are currently used for dealing with the Research and Development costs. One of them is to treat the Research and Development cost as expense on the ground that research is vital to maintain industry ranking. The second one is to capitalise and to amortise the costs over the expected product life. The third one is to defer only costs of probably commercial success.

Each of the aforesaid treatments has arguments and counter arguments. Those who argue in favour of expensing out the Research and Development costs find the logic of such treatment in the following:

(i) uncertainty about future benefits;

(ii) lack of casual relationship between expenditure and benefits;

(iii) its inability to meet the accounting concept of an asset;

(iv) difficulties of applying matching concept;

(v) its devastating effect on the financial stability of a firm undertaking the expenses should no worthwhile benefits accrue to it in future.

But charging the Research and Development costs to the
current period as an expense on revenue basis creates some difficulties also. For example, profits current will be low; interpretation of financial statements through ratio analysis will be rendered sterile; distorts profitability, net worth and capital employed in the enterprise; affects Governments collection from taxes on business profits. Again as profits will be reduced there is a great chance for decreasing further investment and earnings of the shareholders with impact on firm value.

The situation gets complicated further because Government grants various tax concessions for the promotion of Research and Development at firm level besides granting subvention the condition for which has impact a accounting treatment. It is therefore argued that correct approach to deal with Research and Development Costs will be to capitalise such costs.

Those who advocate amortisation of Research and Development costs argue:

(i) That the increase expected in the earnings in the future is due to the efforts of Research and Development and so future periods should bear a legitimate share of such expenses.

(ii) Charging the expenses in the current period results in wide fluctuations in costs and profits.
(iii) When a patent results from Research and Development, it is but reasonable that the cost of the patent should be amortised in future years which receive benefit from it.

(iv) It is not correct to charge expenses not directly related to current activity, to current costs and profits.

The third process, it would be recalled is to defer only costs of probably commercial success. The arguments that are adduced in favour of capitalisation and subsequent amortisation are also applicable for deferment of Research and Development costs, the only difference being the time span over which such costs are to be written off.

What is more interesting is that some practices for the accounting treatment of Research and Development costs have already developed in a number of countries, e.g. Australia, Canada, Germany, Japan, U.S.A., U.K., Ireland etc. In the meantime an International Accounting Standard (IAS-9) has also been issued by the International Accounting Standard Committee and there has been some regional standards also in this regard. In India, accounting treatment of Research and Development costs is covered by Accounting Standard 8 (AS-8). The standard identifies items of costs which comprise Research and Development costs, lays down conditions under which Research and
Development costs may be deferred and requires specific disclosures to be made in the Annual Report regarding Research and Development costs.

India is one of the leading developing countries in the world. Hence, Research and Development costs are not uncommon in the enterprises both in the private and public sectors though the development is comparatively of recent origin. In the context of what have been stated above regarding the problems relating to the accounting treatment of costs for Research and Development, it has been considered worthwhile to examine the Indian practices in this regard and to suggest its stream-lining, if found necessary, from the study. To be most specific, the objective of the present study has been to examine the following issues taking them as the parameter of accounting practices in respect of Research and Development costs in the backdrop of the hypothesis stated earlier.

(i) Whether the Accounting Policy Statement contains any information about Research and Development, particularly when Accounting Policy Statement has become an integral part of the reporting practices of the corporate undertakings in India with effect from 1st of April, 1991.

(ii) How the total Research and Development costs are treated in Profit and Loss Account and Balance Sheet for reporting purposes?

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(iii) Whether the schedule of expenses forming a part of profit and loss account contains information on Research and Development in details as to its break-up in the schedule.

(iv) Where a part of Research and Development costs is capitalised and carried to Balance sheet, how is the capitalised cost shown in the list of assets?

(v) Whether under the category of fixed assets in the schedule, the Research and Development items are shown as a separate one?

(vi) What has been the statutory disclosure requirement in respect of Research and Development and to what extent is this followed by the Companies in India?

(vii) Whether there is any difference in respect of reporting practices centering round Research and Development costs in the public and private sectors.

(viii) Whether Research and Development costs are shown in 'Notes on Accounts' schedule.

(ix) Whether the undertakings reporting for Research and Development are following Accounting Standards...
issued by the International Accounting Standard Committee (IAS-9) and Accounting Standard Board in India (AS-8) on Accounting for Research and Development costs (vide PP. 37-43 of the thesis).

Methodology, Scope, Scheme and Limitations of the Study:

In view of the objective outlined in the thesis the present study examined the practices in respect of accounting for Research and Development over the five years between 1985-86 and 1989-90 in some companies, selected at random, from the cross section of Indian Industries such as Pharmaceuticals, Chemicals, Iron and Steel, Cement, Engineering, Electricals, Electronic and Telecommunication industries belonging both to the private and public sector with an average annual turnover ranging between Rs.1.61 crores and Rs.1,627.6 crores in case of private sector and Rs.117.92 crores and Rs.5,566.63 crores in case of public sector respectively. The range of turnover of the selected sample companies appears to be very wide. This is mainly because of the fact that Research and Development activities are not a common phenomenon among the rank and file of Indian industries especially in the private sector. Hence, in the selection of sample, this aspect had to be ignored which we presume as a limitation of our study. The disparity between turnover of the companies under private and public sectors which have been selected as the samples for the study is mainly because of the fact that the public sector companies in India are generally giant in size and in many cases have monopoly.
control over the Indian market. Another significant point to note is that the period of our study of the accounting practices in India in respect of the treatment of Research and Development costs falls within the period when there was no Accounting standard to be followed under mandatory order. Incidentally, it may be stated that Accounting Standard for the treatment of Research and Development costs issued by Accounting Standard Committee in India (AS-8) has been made effective only from 1st of April 1991. Information relating to the Indian practices have been collected by the issue of questionnaires and through personal interviews of the Executives in charges of Accounting and Finance. The study also drew heavily from the existing literature on the subject including the Accounting Standards that have been issued by the International Accounting Standard Committee (IAS-9) and by the Accounting Standard Board in India (AS-8). Recourse had also been on published and unpublished records of the selected corporate enterprises.

The present exercise has been undertaken with the sole objective of examining the accounting practices of Research and Development costs in the corporate sector in India with reference to the issues formulated in the study. Research and Development activities have wider impacts in a society, especially in the developing countries. One immediate impact of Research and Development is on the transfer of foreign technology. The other impacts are on foreign collaboration and foreign exchange reserves. The objective of the present study being very much limited, it made no attempt to examine these issues. These issues, therefore, in our opinion offer scope;
for further research relating to Research and Development activities in the Indian industries (vide from para 6 of page 43 to Page 45 of the thesis).

Re. Point (iii) - Literature Survey:

Treatment of Research and Development costs in the accounts of the business entities has come to the limelight in the developed countries from the late forties with rapid changes in the production technology, changes in the product mix, gradual removal of trade barriers among different countries and emergence of multinationals. In India the same started figuring in the published accounts of the big companies in a limited scale from the sixties. Therefore, there has not been works in volumes on accounting for Research and Development costs. Again in many of the works the focal point has been organisational and budgeting aspects of Research and Development exercises of the enterprises. In otherwords, on the exercise of managerial control over the Research and Development activities.

The available literature on the subject of Research and Development costs are:


(10) Department of Science and Technology, Research and Development Statistics, Government of India, New Delhi.

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(11) Department of Science and Technology, Research and Development in Industry, Government of India, New Delhi.


(13) V.V. Subrahmanyam, Management and Accounting of Research and Development, Lok Udyog, BPE, New Delhi, Vol-IX No.10 January, 1976.


(15) FASB Statement No.2 - 'Accounting for Research and Development Costs' issued by Financial Accounting Standards Board, U.S.A.

(16) SSAP - 13 on 'Accounting for Research and Development' issued by the Accounting Standards Committee of CCAB Limited, U.K.

(17) AAS 13 on 'Accounting for Research and Development Costs' issued by Australian Society of Accountants and the Institute of Chartered Accountants in Australia.
Accounting profession as well as the academic accountants were besieged with the problems of accounting treatment of Research and Development Costs in the books of accounts from the early seventies. For harmonising the accounting treatments of Research and Development Costs the apex bodies of profession in different countries therefore, formulated accounting standards. The most notable among these countries were U.S.A., U.K., Australia and India among many others. These standards in a sense form available accounting literature on the subject of Research and Development Costs.

India formulated accounting standard (AS-8) in the year January 1985 and it has been made mandatory from 1st of April, 1991. Nevertheless there was no work on how Research and Development Costs are being treated in the accounts of the Indian industries. The present exercise was undertaken to fill up this gap.
Re. Point (iv) - Absence of any comparison between public and private sector companies in respect of Research and Development practices and their accounting systems:

On the basis of the discussion in the thesis (Vide PP. 187 - 205) it may said by way of comparison that public sector undertakings are better placed in respect of reporting on Research and Development Costs in their published annual reports then it is in the private sector undertakings.

Re. Point (v) - Absence of discussion, though very briefly, on the cost and benefits of Research and Development to a company in different forms:

Research and Development Activities confer a host of long-term benefits to the enterprise and the society at large. These could be summarised as under:

(i) **Product Development**: Continued Research enables the discovery of new methods of production and processes. These, in turn, produce new textures and flavours.

(ii) **Increased Productivity**: Research and Development activities either improve the quality of factor inputs or increase the efficiency with which these factor inputs are used. As a result thereof, a more favourable input-output relationship is brought about.
(iii) **Consumer Satisfaction**: Most of the research results have satisfied changing consumer preferences and kept the factory in step with changing tastes and fashions of the people.

In view of the aforesaid benefits it is now believed that it pays in the long-run to incur costs for Research and Development subject to its proper accounting treatment.

Re. Point (vi)- Absence of focus on the defects of the present accounting system of Research and Development.

The study revealed that out of the three alternative systems of treating Research and Development Costs namely (i) capitalisation of the costs, (ii) expensing of the costs and (iii) deferral of the costs, it is the treatment of expensing of the costs which is the practice in the Indian industries. It is also the system which has been prescribed by the Indian Accounting Standard (AS-8) though the system has the following limitations:

(i) Profits current will be low.

(ii) Interpretation of financial statements through ratio analysis will be rendered sterile.

(iii) Distortion of profitability, networth and capital employed of the enterprise.

(iv) Government collection from taxes on business profits will be affected.

(v) As profits will be reduced there is a great chance for decreasing further investment and earnings of the shareholders with impact on firm value (vide PP. 39-40 of the thesis).