

COST - EFFECTIVENESS
OF
Entrepreneurial Development Training Programme
(Study of Three Institutions)

A Dissertation Submitted to the Jawaharlal Nehru University
in Partial Fulfilment for the Degree of
Master of Philosophy
(ECONOMICS OF EDUCATION)

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JULY - 1986

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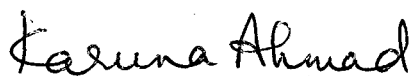
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Certified that the dissertation entitled "Cost-Effectiveness of Entrepreneurial Development Training Programme" Studies of three Institutions submitted by Miss Prava Devi Agrawal in fulfilment of eight credits out of the total requirements of twenty-four credits for the Degree of Master of Philosophy of this University is a bonafide work to the best of knowledge. It is certified that the same work has not been previously submitted for any other degree of this or any other university.

This dissertation may be placed before the examiners for evaluation.


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ACKNOWLEDGEMENT

It indeed, gives me a deep sense of pleasure to extend a sincere debt of gratitude to my respected supervisor Prof T. Majumdar, Head, Economics of Education, Zakir Husain Centre for Educational Studies, School of Social Sciences, Jawaharlal Nehru University, for his able and intellectual guidance, spontaneous encouragement and thought provoking suggestion to complete this dissertation successfully. I am really thankful to him for the sacrifice of his valuable time for my work.

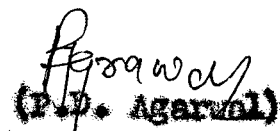
My thanks are also due to Dr S. Kejeriwal, Project Director, Adult Education and Dr B. Khatriya, Research Associate, Economics of Education of the Centre, for their fruitful suggestions and criticisms these help me to formulate and complete work smoothly.

I am also thankful to the National Institute for Entrepreneurship and Small Business Development for supplying me the relevant data.

My heart-felt respects are due to my parents who are always behind my being and becoming.

My friend Mr Debal K. Singharoy and others also deserve a lot of thanks for their timely suggestions and cooperation in this regard.

Lastly, I must thank Mr Chander who have taken the pain to type the dissertation neatly.


(P. D. Agarwal)

CHAPTER I

1.1. Introduction

"Small is beautiful." Small scale industry is an important source for the economic development of the underdeveloped country like India. Small scale industries are generally low capital intensive and high labour intensive in nature. Because of this quality small scale industry is very useful in a labour surplus country like India. Unemployment problem is one of the serious problems in India. In order to eradicate this problem, development of small-scale industry is considered as an important tool. Through its development it might be possible to provide employment to a large number of unemployed people.

Keeping this factor in view, the Indian Government had established several institutions both at the central as well as State level to provide certain support systems to small scale entrepreneurs. It was realised that, for the development and smooth functioning of the small scale industry, it is necessary to prepare/develop the small scale entrepreneurs.

1.2. Emergence of Entrepreneurial Development Programmes

There had been a popular myth particularly in the business world in India that entrepreneurs are born and not made. But this myth was challenged sometime around 1960,² when some public as well as private organisations came out with a number of "entrepreneurship training" schemes and started providing "entrepreneurial training" to the "potential" as well as "existing" entre-

preneurs. After that one noticed a growing realisation that, systematic, organised and concerted efforts for entrepreneurship development can help produce a class of entrepreneurs through training.

For the first time, a formal "entrepreneurial development training programme" (EDTP) was launched by Small Industry Development Organisation (SIDO) in 1970-71.⁵ It enabled the engineering graduates and diploma holders to take up self-employment ventures. This scheme was implemented through Small Industries Service Institute (SISI) which are spread all over India. The scheme was further extended to other categories of entrepreneurs in 1978-79.⁴ By 1981-82,⁵ it included not only educated unemployed, rural artisans and students but also the weaker sections including women, the physically handicapped etc. As a result people in large numbers came forward to take up small industrial enterprise of their own. Now a days not only the central institutions but a large number of state and private institutions have also started this (EDTP) programme.

1.3. Activities required to Prepare an Entrepreneur: A Classification

Alkhourl (1981)⁶ has suggested that there are three groups of activities which are essential for the success of small scale entrepreneurs in setting up of an enterprise. These three activities are:

- 1) Stimulatory;
- 2) Supporting;
- 3) Sustaining

1.3.1 Stimulatory Activities

Stimulatory activities ensure the emergence of entrepreneurs in society. Under this, the ground is prepared for entrepreneurship to germinate so that a people start looking for entrepreneurial pursuits. In other words it motivates the people towards the setting up of an enterprise. Activities included under this category are as follows:

- i) to impart entrepreneurial education
- ii) prepare planned publicity for entrepreneurial opportunity
- iii) identify potential entrepreneurs through scientific methods;
- iv) provide 'motivation training' to new entrepreneurs;
- v) help and guide in selecting products and preparing project reports;
- vi) make available techno-economic information and product profiles;
- vii) evolve new product and processes suitable to the local situation;
- viii) set up local agencies with trained personnel for entrepreneurial counselling;
- ix) Organise entrepreneurial forums;
- x) create situations where entrepreneurs get due recognition; etc.

All these activities generate the initial motivation among the people to perceive correctly the incentives and opportunities offered for acquiring entrepreneurial skills.

1.3.2 Supporting Activities

'Supporting activities' imply the activities that help entrepreneurs in establishing and smooth functioning of their enterprise. Under this category the following activities are

carried on; such as,

- i) registration of unit;
- ii) arranging finance for the purchase of plant and machinery;
- iii) provision of land, shed, water etc;
- iv) general guidance about the rules and regulation of the government;
- v) selecting plant and machinery;
- vi) management consultancy;
- vii) marketing facilities;
- viii) information about raw materials availability
- ix) common information related to industry, etc

The above activities partly, though not wholly, help/encourage the entrepreneurs to start the new enterprise.

1.3.3 Sustaining Activities

"Sustaining activities" refers to activities which help to make sure of efficient and profitable functioning of an enterprise. The activities included under this category are;

- i) modernisation of plant and machinery;
- ii) diversification/expansion substitute for production;
- iii) additional financing for full capacity utilisation;
- iv) deferring repayment interest depending on the situation;
- v) help/guidance in examining the cause of failure or low production/profit modification or change in legislative policy affecting the units;
- vi) diversification of product reservation;

- vii) creation of new path for marketing the product;
- viii) creating provision for quality testing and quality improvement on low cost;
- ix) creating common facilities which are not feasible in a single unit but are needed by the unit both in production and marketing, etc

All activities which are described in these three categories are not exhaustive.

The three groups of activities are highly complementary and so, they are interlinked with each other. The negligence or excessive emphasis of any group of activities reduces the usefulness of other group of activities.

Institutions engaged in the development of small scale industry or entrepreneurs may or may not provide all these activities.

An institution may be providing practical facilities in real terms whereas another may be giving only theoretical guidance about these activities.

1.4. Characteristics and Purpose of EDTP

1.4.1 The course content of the Entrepreneurial Development Training Programme (EDTP) covers a range of activities i.e (i) achievement motivation planning for small industry (ii) management of small industries (iii) preparation of bankable project reports etc. EDTP covers both the theoretical as well as practical training in its curriculum. Theoretically, through class room lectures, discussion, films show it provides the information about the necessary requirements and its availability in setting up of an enterprise. Under the practical training

it provides the facilities viz. inplant study or field unit visit to different industrial units where the trainees can freely discuss with the owners and managers of the industry and learn various aspects of industries. Market survey is also conducted by them. So that, the trainees can study the demand outlook of the proposed products for which they intend to set up an industrial unit. As a whole, we can say that EDTP is a theoretical-cum-practical training.

1.4.2 The main purpose of EDTP is to prepare and develop small scale entrepreneurs. In order to make this training more efficient and effective, most of the concerned institutions undertake post training or follow up activities. Through these activities the participants are assisted in preparing their project report if needed, other help such as registration, provision of land/shed, water, power etc, if they require. In order to keep contact with them, the organisation call them periodically and organize get-togethers to discuss the problems which they may be facing and help them to find out solution for the same. In such a way, the training institutions follow the activities of their trainees until they start their own enterprise (generally upto one year).

1.5. Need for Entrepreneurial Development

With the emphasis on industrialisation in the Indian plans, the demand for small scale entrepreneurs has increased at a fast rate. In order to bridge the gap between the demand for and supply of entrepreneurs, a large number of institutions came forward to conduct EDTP and now it is highly developed.

1.6. Significance of Cost-effectiveness Studies

Every year a large amount of money is spent on EDTPs. But a great deficiency in this field is that, the economic aspects i.e costs, benefits or the rate of return do not sufficiently engage the attention of the researcher/experts. Expenditure on education in general and EDTP in particular, is treated as "social investments" and allowed them to be determined residually. The central as well as the State Governments have the same attitude towards EDTP.

In every programme some resources are kept for alternative usages. By using these resources for a particular activity we are sacrificing the gains that could be obtained from using them for some other purposes. The value of this sacrifice or the cost of these resources which are used for a particular programme is called its cost. By using some inputs, some outputs can be produced, which are called the effectiveness of the programme. By putting effectiveness, into its costs; we may find out how significant the programme is. Hence, the significance of different programmes can be measured by measuring the cost-effectiveness of these programmes. Therefore, the cost-effectiveness study is very significant to find out the best alternative programmes.

1.7. Objectives of the Present Study

The present paper makes an attempt to study the problem of measuring the cost-effectiveness of some selected entrepreneurial training programmes. The questions raised in this

context are:

- i) What are the costs of EDTP ?
- ii) What are the different categories of trainees ? Does the cost differ from programme to programme depending on the categories of trainees trained ?
- iii) Do the costs have any impact on the rate of success ?
- iv) What are the different objectives of EDTP, and how can its effectiveness be measured ?
- v) Is the rate of success influenced by the categories of trainees ?
- vi) Does the locality of training have any impact on its rate of success ?

On the basis of these questions three hypotheses are considered.

1.8. Hypotheses

- 1) The higher the total costs of the programme the higher will be the rate of success, other things remaining the same.
- 2) The rate of success of EDTP will differ depending on the difference in the categories of trainees.
- 3) Differences in the rate of success may be due to difference in locality of training.

1.9. Data

So far no published analysis has appeared in this field. The study is therefore, based on various documents acquired from different concerned institutions. We have depended on primary sources such as the published and unpublished data of Development Commissioners, The Small Scale Industry, Ministry of Industry, New Delhi⁷, Industrial Development Bank of India, National Institution for Entrepreneurship and Small Business Development, New Delhi⁸ and Small Industries Service

Institute Karnal⁹ and Patna¹⁰. In other words this study is mainly based on data sources providing heterogeneous information. This obviously makes the nature of our analysis somewhat tentative.

1.10. Scope

The scope of this paper is limited to study the cost-effectiveness of entrepreneurial development training programme (EDTP). In order to make the study specific we have taken the EDTP of two Central Government institutions and one sponsored body organisation. Small Industries Service Institute (SISI) Karnal and Patna are two central Government institutions. These institutions are working under the network of Small Industry Development Organisation (SIDO), Ministry of Industry. The sponsored body organisation called the Bihar Industrial Technical Consultancy Organisation (BITCO), Patna is sponsored by Industrial Development Bank of India (IDBI), Industrial Finance Corporation of India (IFCI) and State Finance Corporation (SFC). These three organisations though not exclusively but partly conducted the EDTP.

The cost effectiveness of EDTPs conducted by these institutions is measured on the basis of the hypotheses which we framed. In other words we measure and compare (from three different angles) the cost effectiveness of EDTP conducted ^{by} three institutions .

First, we calculate the cost-effectiveness of EDTP of different institutions but same locality, i.e SISI, Patna

and BEGO, Patna.

Secondly, we calculate the cost-effectiveness of EDTP of similar institutions but two different locality, i.e. SISI, Karnal and SISI, Patna.

Thirdly, we calculate the cost-effectiveness of EDTP of one and the same institution but different categories of trainees, i.e. SISI, Karnal.

1.11. Methodology

The method which we will use to measure the cost-effectiveness of EDTP¹⁵ is slightly different from that used for other programmes, like formal education. Because of its (EDTP) certain peculiarities, we measure its costs in monetary units while the effectiveness in physical units. In order to measure the cost-effectiveness of EDTP we simply divide its costs by its effectiveness (as defined on pp)

C refers to costs

E refers to effectiveness

$\frac{C}{E}$ is cost-effectiveness.

Cost-effectiveness analysis is different from cost-benefit, cost-utility and cost-feasibility analysis. Levin (1983) mentioned that the above four analytical techniques are often used interchangeably for project evaluation. They belong to the general cost analysis family. But each has its own characteristics. A brief word about each of these techniques may be of interest.

1.11.1 Cost-effectiveness

Kim and Harris (1976)¹¹ mentioned that cost-effectiveness is an analytical tool which is generally used to evaluate a project. By assessing the effectiveness of the programmes on the basis of their objectives and calculating its costs we try to relate the total effectiveness (of the prog.) to its total costs.

Quade (1967)¹² (P1) defines cost-effectiveness study as "analytical study designed to assist a decision-maker in identifying a preferred choice among possible alternatives". He finds five components to the analysis: (1) the objectives, (2) the alternative ways in which the objectives might be attained (3) the costs, (4) a model or simplified representation of the situation to be analysed, and (5) a criterion or standard by which to rank the alternatives in order of desirability and to choose the most promising one (PP.4-5).

Knezevich (1973, p185)¹³ defines cost-effectiveness analysis as a series of activities:

- 1) specifying objectives,
- 2) identifying alternative means,
- 3) generating a model for the programme under study
- 4) computing the costs (disadvantages) for each alternative means to an objective,
- 5) determining the effectiveness (advantages) for each alternative
- 6) computing the ratios between cost and effectiveness for each alternative plan,

- 7) adopting a criterion, that is, a rule or standard to be used for ranking and selecting alternative means to an objective and
- 8) recognizing the importance of interactive processes for confirming refinement of the analysis.

Gary (1972, p. 61)¹⁴ says that cost-effectiveness technique in the context of school has been described as "the process of solving problems of choice requiring the definition of measurable objectives, identification of alternative ways of achieving the objective, identification of the anticipated cost and effectiveness for each alternative, and identification of the optimum alternative which potentially achieves the desired objectives for the educational activities of a school".

Levin (1985)¹⁵ views cost-effectiveness analysis as a technique which is used to evaluate the different projects on the basis of their costs and their effectiveness, in order to produce some outcome or set of outcome. It can only be possible when different projects have the same objectives/goals. In the words of Levin (a) programmes with similar or identical goals can be compared and (b) to assess their effectiveness a common measure of effectiveness can be applied.

As a whole, we can say that cost effectiveness study is an analytical technique which is generally used to evaluate the alternative programmes having identical goals. Here, the costs of the programmes are measured in monetary units and its effectiveness are measured in physical units. When

the effectiveness of programme combines with its costs, then we get the cost-effectiveness of this programme. The cost-effectiveness of different alternative programmes enables us to select the least cost or high effective programme with given effectiveness or given costs respectively. This is called the dual of one another.

The cost-effectiveness analysis has its own merits and demerits. The most important merit is that it is very useful to measure the cost-effectiveness of educational projects. At the same time it covers both the costs as well as effectiveness of the projects.

The major handicap of this analysis is that its applicability is limited to only those programme which have identical/similar goals. The cost-effectiveness analysis cannot be used for evaluating projects having different goals.

1.11.2 Cost-Benefit Analysis

Cost-benefit technique is generally used when the costs and benefits of any programme can be measured in monetary units. In other words, it is commonly used when the money value of each item is possible. After measuring the cost-benefit ratio one can choose the lowest cost-benefit ratio or the highest ratio of benefit to costs project.

No doubt it is very useful when the monetary values of all inputs and outputs are calculable. But the straight cost-benefit analysis is not feasible for this study. The reason is that the outcome/output of the entrepreneurial development training programme has no market value, nor can it be measured in monetary units.

1.11.3 Cost-utility Analysis

Cost-utility analysis requires to measure the utility or value of the outcome of the programme. It is helpful in evaluating the alternatives by comparing their inputs with estimating utility of their output. Estimating the utility of output is a psychological/subjective phenomena. This subjective assessment has its own limitation. Amount of utility derived by consuming a particular thing is difficult to give any measurement. At the same time, the value/utility assessed by the consumer is different from person to person.

Because of these shortcomings, it is not appropriate to evaluate the outcomes of the EDIP

1.11.4 Cost-feasibility Analysis

Cost feasibility analysis is used when the alternative projects are evaluated on the costs basis only. In other words, it denotes the cost-feasibility of different alternative projects; which project is most cost-feasible for the given budget. It helps when one can choose the project before implementing any project.

This technique totally ignore the effectiveness part of the programme. It is useful before implementing the programme.

This technique is not useful in the present study because it (present study) attempts to measure both the costs as well as effectiveness of EDIP. Added to it, we study those EDIP programmes which are already implemented. Therefore,

the cost-feasibility of the programmes are not needed to measure.

1.11.5 Appropriateness of Cost-effective Analysis

The outcome of the education in general and EDTP in particular, is intangible in nature. There is no specific market where it can be bought and sold directly. Hence, it is very difficult to ^{assess} the market value of education. In such a situation cost-effectiveness analysis is considered to be useful tool for evaluating the educational projects.

University education is not working within a budget constraint. It means its budget cannot be changed without any public opinion. But the entrepreneurial development training programme has budget constraints. It means its budget can be curtailed without taking public opinion. It may or may not change depending on the government decision. Hence, the costs and its related effectiveness is necessary to measure.

The outcome of the EDTP, like education, has no market in the usual sense of the term. Hence, it is difficult to estimate the market price of its out come. In such a situation "shadow price" is generally used to estimate the value of the outcome. In case of the output of educational systems (say graduates), we use the prevailing market wage rates to measure its value. Since the outcome of EDTP is peculiar "shadow price" is not a useful to determine the value of its output. Output of an EDTP has no wage rate. There is no labour market for them. Hence the indirect method

of valuing education output, (i.e salaries of graduates) cannot be used for the 'entrepreneurs'. The cost-effectiveness analysis is a useful technique to evaluate the EDTP where the monetary measurement is not needed. The conditions required for using the cost-effectiveness technique are (i) identity/similarity of goals (ii) possibility of at least hypothetical measurement or identifications of its output etc. When these conditions are fulfilled, one may use cost-effectiveness method.

From the above discussion; it appears that cost-effectiveness analysis may be appropriate for evaluating, EDT programmes.

1.12. Location of the Study

The present study covers two Central Government institutions; Small Industries Service Institute (SISI), Karnal and Patna and one sponsored body organisation, i.e Bihar Industrial Technical Consultancy Organisation (BITCO), Patna.

SISI, Karnal and Patna are same in every aspects viz. management, faculty, facilities etc except in locality factor. BITCO, Patna and SISI, Patna are different in all aspects; except in locality factor.

1.13. The Framework of the Study

Small Industry Development Organisation (SIDO), under the Ministry of Industry, has been pioneer in conducting "Entrepreneurial Development Training Programme" EDTP. It started this programme for the development of the small scale industries from early 1970s. Later on, its great

achievement might have encouraged other institutions. They came forward and started taking interest in EDTP. Gradually, the behavioural scientists have developed a strong interest in and started providing "Achievement Motivation Training" to motivate the potential entrepreneurs.

1.13.1. Like others, EDTP requires certain inputs in order to produce certain outputs. In order to provide inputs, a large amount of investment is made on it. But till today no work has been done to measure the cost-effectiveness of this activity (EDTP). In order to rationalize the investment strategies in the field of EDTP, it becomes exceedingly important to identify and measure the inputs and outputs of the EDTP. The measurement of cost-effectiveness of EDTP may be useful for evolving long term investment strategies in this field in the country.

1.13.2 It is interesting to know the inputs used and outputs produced in EDTP. Considered as an industry EDTP is a complex of different training institutions, physical equipment, entrepreneurs, faculty members, management etc. The professional, sub professional and technical manpower employed in this industry consists of its faculty members and guest faculty. The raw materials for this industry are "potential entrepreneurs. Other capital/inputs are the buildings, libraries and laboratory equipment (training tools and equipments).

The output of EDTP industry may be defined as the amount of knowledge absorbed and capabilities developed by

the entrepreneurs in the field of setting up of an unit as they come out of the training process. By output, we mean the number of entrepreneurs trained and who are eventually able to start their unit/enterprise.

1.13.3 Technique used to Calculate the Cost of EDTP in SISI

Costs can be broadly divided into two categories; "Fixed Costs" and "Variable Costs". "Fixed Cost" is fixed in nature without considering the programme is conducted or not while "variable cost" is varies from time to time depending on the several factors i.e number of programmes. Conducted, number of trainees attended etc.

The variable costs of EDTP in SISI is available in the cost data of SISI. The present study has taken the relevant data as reported by SISI. But the costs of fixed capital is not included in the available cost data. Therefore, its measurement is necessary to get the total costs of EDTP in SISI. The method adopted to measure its fixed costs is as follows:

Small Industries Service Institute has several divisions. Industrial Management Training (IMT) division is one of them. This division is responsible for conducting entrepreneurial development training programme (EDTP). Whatever funds (for fixed factors) granted to IMT division is used for EDTP also. In order to find out the fixed costs of EDTP separately it is necessary to know the proportion of utilisation of capital in two purposes. As discussed with the members of EDP cell of Development Commission, SSI, 2/3rd of the total fund

is spent on EDTP and the rest 1/3rd on IIT. Hence, the study takes the 2/3rd of total fixed cost of IIT division as the fixed costs of EDTP.

1.13.4 Costs of EDTP in BITCO

In case of BITCO, there is no need to estimate either the fixed costs or variable costs, because, the costs pattern of EDTP of BITCO includes both the costs.

1.13.5 Technique Used to Estimate the Outcome of EDTP

The outcome or effectiveness of EDTP is, the number of trainees who started their unit after completing the training. The formula used to measure the rate of success of training programme is:

$$\frac{\text{No. of trainees who started their Unit (NUS)}}{\text{Total no. of persons trained (TIT)}}$$

1.13.6 Technique used to Measure the Cost-effectiveness

The present study measures the cost-effectiveness of EDTP by first estimating the cost of per trainee and the effectiveness of per trainee combining ^{one} into another. In other words, the costs divided by effectiveness is called the cost-effectiveness i.e C/E.

1.14. Classification of Costs

Costs can be divided into three broad categories:

- 1) Institutional cost
- 2) Participant/trainee cost
- 3) Opportunity cost

1.14.1 Institutional Costs

The costs which are incurred by the institution is

called 'institutional cost'. It has four major components.

- i) capital cost
- ii) equipment cost
- iii) non-divisible operating cost
- iv) Divisible operating cost.

1.14.1.1 (i) Capital Cost

It includes the expenditure on items such as building, furniture etc. which are generally non-recurring in nature.

1.14.1.2 (ii) Equipment cost

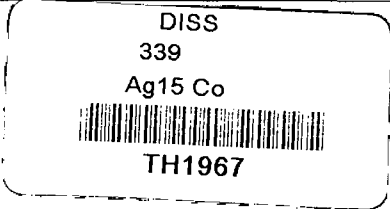
There is no fundamental difference between capital cost and equipment cost. The only difference is that the items included under equipment category, may be recurring or non-recurring in nature. The items included under this category is; costs of training tools, equipments etc.

1.14.1.3 (iii) Non-divisible Operating Cost

It includes the salary of teaching and non-teaching staff, gratuity, pension, provident fund, contribution of the institutions and expenditure on non-educational activities like inauguration and valedictory functions, entertainment, workshops, taxes, electricity and water charges; current expenses for repairing buildings, furniture, contingent expenditure on postage and stationery etc.

1.14.1.4 (iv) Divisible Operating Cost

Cost of items such as honorarium, TA/DA etc given



to guest faculty, course material used, stipend paid to the trainees, lodge and board costs, if any, etc are included under this category.

1.14.2 Participant Cost

The costs which are borne by the participants during training is called the participant's cost. This cost is also included under the total costs of the training programme. In case of EDTP there is no so called participants cost because the programme is very short in duration, therefore, no extra arrangements; maintenances etc is required to the participants. No admission fees are charged by the institution. If the programme is held out of station, then the institution borne the accommodation costs of the participants. It means, no extra lodge/board costs are incurred by the participants during the programme. Maintenance costs of the participants are not included under the training cost because if they could not attend the training then also they incurred the cost for the same. As a whole, we can say that there is no extra participant costs for EDTP.



1.14.3 Opportunity cost

Opportunity cost of the participant can be defined as the income foregone by the participants which they could have earned if they did not attend the training course. In case of EDTP the opportunity costs of participants is zero because most of the participants of EDTP are unemployed. Hence, there is no question of any sacrifice of income. But it does not mean that the opportunity cost of unemployed is zero. Zero from the individual point of view but it cannot be so from the

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social point of view. Because the potential contribution (from the unemployed) to national income remains unrealised.

1.15. Time

We had collected relevant data for four years 1980-81, 1981-82, 1982-83, 1983-84. But we used the data only for one year; 1983-84. Because, this year is considered as a normal year and also due to the fact that the data required for the present study is available for this year from different institutions. For other years adequate and comparable data for different institutions were not available. In any rough estimates for those other years shows that our result will not change in any significant way have we got enough data for these years.

1.16. The Structure of the Study

The study consists of five chapters.

- 1.16.1 Chapter I attempts to clarify the objectives of the present study and the method adopted for testing the different hypotheses which are framed in this study.
- 1.16.2 Chapter II attempts to clarify the definitional issues relating to entrepreneurs, role of training in the development of small scale entrepreneurs.
- 1.16.3 Chapter III deals with the costs of EDTP. It attempts to measure all the expenditure of EDTP (during 1983-84) of three institutions in question; two SEIs and one TCO.
- 1.16.4 Chapter IV highlights the effectiveness of EDTP. It

It attempts to measure its effectiveness by taking the number of successful entrepreneurs (who started their unit) out of the total number of trainees who trained during 1983-84. The same chapter attempts to measure the cost-effectiveness of EDIP of three institutions in question and try to compare their cost-effectiveness in order to test the hypotheses of this study.

1.16.5 Chapter V concludes this study by summarizing all the objectives and hypotheses on which the study is based. It provides some suggestions also for Government; Organizer, entrepreneur, etc. It provides some suggestions also for future planning, improvement in EDIP etc. These suggestions may be useful for the concerned organizations, institutions and government.

CHAPTER II

EMERGENCE OF ENTREPRENEURSHIP AND THE ROLE OF TRAINING FOR ITS DEVELOPMENT

A SHORT REVIEW

1.1 Evolution of Entrepreneur

The term 'entrepreneur' has varied connotations. Its meaning changes with change in socio-economic reality. Let us discuss about its evolution.

In the early sixteenth century France for instance, the term entrepreneur was used for army leaders. It was applied to business for the first time in the eighteenth century to designate a dealer who buys and sells goods at uncertain prices.¹

In recent times different economists and sociologists define the term entrepreneur in different ways. According to Schumpeter (1961)² an entrepreneur was a dynamic agent of change; or the catalyst who transformed increasingly physical, natural and human resources into corresponding product possibilities.

1.2 Difference between Entrepreneur and Manager

Although there is some synonymy between entrepreneur and manager. Some writers do not agree on this point. Collins and Moore³ argue that the entrepreneurs differ significantly from managers and executives, while Giesbrecht⁴ concludes that entrepreneurs are special breed. They behave differently and have different motive backgrounds and origins than managers, while H.N.P. Akouri (1985)⁵ mentioned that in small scale industry entrepreneurs are usually owner/managers. In the initial stage the entrepreneurs are more

concerned with the start of work, they play the role of workers more than that of managers. But as the industry starts developing the working role of the entrepreneur gradually diminishes and proportionately the manager's role goes on increasing. In other words in true sense there is no difference between an entrepreneur and a manager. The role of entrepreneur is a dynamic one. He is a special type of businessman who is an owner and initiator of a business and who may or may not be a manager in it as well.

In the words of Remu (1986)⁶ the term entrepreneur denotes more than a 'businessman' in the sense that it connotes not only innovativeness, initiativeness, institution and a capacity to endure risks but also one who is susceptible to the external environment such as competition, economy, technology etc a core ingredient for development and growth.

1.3.3 Contributory factors to Entrepreneurship

A number of thinkers and writers have emphasized various factors as determinants of entrepreneurship.

Max Weber (1930)⁷ held that the protestants progressed fast in bringing capitalism because of the "protestant ethic" which emerged from the religious belief system of calvinistic puritanism. The ethical values that were led a rational economic attitude is facilitated by this system. However he felt that it is absent in oriental religious belief systems like, Hinduism, Buddhism and Islam. The view has been challenged by many sociologists e.g (Fox (1973)⁸ Rosalita (1955)⁹ and others.

There is another school of thought that emphasized the need for "Achievement Motivation" McClelland (1969)¹⁰ believed that the 'psychological' factor viz 'achievement motivation' was a major

determinant of economic growth. He analysed entrepreneurial growth of different communities and societies by interpreting it in terms of ideologies reflected in literature, art, history and religion. Further he emphasized those that generated "high degree of achievement motivation facilitated entrepreneurial growth".

From 'religious' and psychological angles, the following school of thought gave turn towards exposure to new ideas and opportunities for entrepreneurial growth. Tripathi (1971)¹¹ and K.N. Sharma (1967)¹² believed that the emergence of new ideas and values was a prerequisite for entrepreneurship. Tripathi believes in formal education. For him education was a media through which entrepreneurial ideas and values could emerge. While Sharma believes that traditions and group affiliations based on religion, caste and region were more important source for the emergence of entrepreneurial ideas, and values.

Medhora (1965)¹³ has given more emphasis on "Political System". He believes that 'political system' was the cause of entrepreneurial growth. For him, due to the political instability in India there was late inception of entrepreneurial growth. According to Handy (1973)¹⁴ supporting community and self image give meaning value and status to an entrepreneurial career. Singer (1973)¹⁵ has given importance to the "traditional system of occupational culture". For him it facilitates the process of modernisation, special opportunities, motivations, experience; training or knowledge. Traditional belief and value system are flexible in nature. Hence, they allow reinterpretation with changing conditions.

A critical evaluation of all these thoughts bring out certain

common characteristics, viz., perception of economic opportunity, technical and organisational skills, managerial competence and motivation to achieve result etc to defining entrepreneurship.

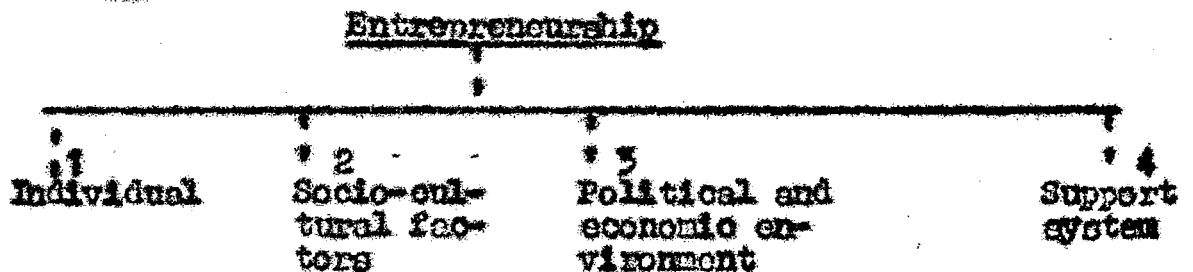
From the above discussion we can say that the emergence of entrepreneurs in a society depends upon closely interlinked economic, social, religious, cultural and psychological variables.

1.4.4 Entrepreneurship Development and the Role of Training

An entrepreneur can be defined as an agent who initiates and establishes an economic activity or an enterprise. Entrepreneur is one who transfers material and human resources into production possibilities. However, the basic characteristics of entrepreneurship include innovativeness, urge to take risk and capacity to foresee things etc.

Now the question arises as to what factors promote entrepreneurship in a society? Earlier we have discussed in detail about the factors which are responsible for the emergence and the development of entrepreneurship in a society. From these various definitions we could identify the following four sets of factors which are influencing the development of entrepreneurship.

Flow Diagram



The above diagram would be discussed in the following sections.

2.4.1 Individual

The individual constitutes the focal point of an enterprise because it is an the individual who decides to break from the past, to innovate, to take risk by investing and to start an enterprise. Hence, it is necessary to discuss the various factors that influence the individual. Three main factors which influence an individual's behaviour are as follows:

- i) his/her motivational factors
- ii) various skills that entrepreneur possesses;
- iii) the knowledge of entrepreneurship on several relevant aspects.

2.4.1.1 Motivation

By 'motivation' we mean the inner urge of the individual to do something new and unique. It is considered as the most crucial factor in entrepreneurship. The motivational factor has three major elements i.e (a) entrepreneurial motivation; (b) personal efficacy; and (c) coping capability.

a) Entrepreneurial Motivation: A lot of work have been done by different researchers on this factor. According to McClelland & Winter (1969)¹⁶, Hauck Hansen (1967)¹⁷, Lerner (1969)¹⁸ the most important motivation is the "achievement motivation". It may be termed as "efficiency motivation" also. "Efficiency motivation" means the efficiency of an entrepreneur to compete with others or with one's own standards of performance, and the urge to do something new/unique or to make the maximum utilisation of available resources.

(b) 'Personal efficacy' differs from individual to individual. Some individuals are more efficacious - personally more efficient or effective to produce the desired effect than others.

(c) 'Coping capability' means the capacity to cope with work stresses and problems. An entrepreneur involved in any business enterprise has to face work stress and other problems. One who effectively copes with such stresses becomes a successful entrepreneur.

The 'Entrepreneurial Development Training Programme' (EDTP) aims to develop the above discussed factors among the potential entrepreneurs in order to make them a successful entrepreneur.

Common Characteristics of Successful Entrepreneur

Several experts (psychologists and behavioural scientists) have tried to list the characteristics and personality traits which are commonly present in case of successful entrepreneurs. T.V. Rao and P. Nohra (1978)¹⁹ have listed a few characteristics such as:

- Need for achievement,
- Need for influencing others,
- Sense of efficiency,
- Risk taking,
- Openness to feed-back and learning,
- Need for independence,
- Hope of success,
- Belief of changing the environment,
- Pragmatic time-orientation,

- Drive co-workers hard,
- Competitive and yet collaborative,
- Flexibility in leadership styles,
- Extension consciousness,
- Dignity of labour,
- Urge to save and invest in growth, etc.

These are the characteristics which are considered as important. It is not necessary that a successful entrepreneur must possess all of the above mentioned characteristics. But the presence of these traits increases the probability of success in entrepreneurial built up.

Through motivational training processes the entrepreneurial development training programme, plays a very important role in developing these traits among the individual. Sometimes people have some entrepreneurial traits but they are unaware about their such qualities. All these traits can be developed further through education and motivational training. Several tests and exercises i.e 'Risk taking', 'Block building', 'Boat building' etc. which are developed by behavioural scientists, are helpful in identifying and measuring the hidden entrepreneurial traits and motivations of the people. These traits cannot be created overnight, but it is certainly possible to develop the dormant and latent capabilities, through a well-designed motivational training, which is a part of the entrepreneurial development training programme.

2.4.1.2 Skills

Apart from motivation, entrepreneur needs certain other

skills as well which may affect his efficiency in major functions. It may broadly be classified in the following three groups:

- a) Ability to perceive an economic opportunity in terms of a 'project'.
- b) Ability to establish an enterprise based on their perception of the 'project' and
- c) Ability to manage the enterprise efficiently.

In order to perform these functions entrepreneur needs certain skills i.e

- i) Skills for project planning,
- ii) Skills for enterprise building, and
- iii) Skills for enterprise management

2.4.1.2.1 Project Planning

Skills for project planning refers to one's ability of conceiving the proposed enterprise in the form of a project and the stages through which he should go to establish it. Training institutions by including project planning in their package, provide training to the potential entrepreneurs and develop entrepreneurs in the country. The project planning and development involves several stages, i.e

- a) Selection of the product
- b) Devising product mix
- c) Investment decision
- d) Profitability analysis
- e) Assessment of working capital
- f) Final feasibility.

Training provides an overall idea about the project planning. It also develops the skills, among the participants, necessary for the preparation of project report.

2.4.1.2.2 Enterprise Building

When a project has been 'planned' and 'developed', entrepreneur tried to build an enterprise. To start an enterprise an enterprise one requires certain skills, which may be developed through training and thus enable the participants to cover different stages such as;

- a) Putting together a project team
- b) Selling the project to bankers, governmental agencies etc
- c) Mobilising necessary inputs
- d) Implementing the project
- e) Recruiting personnel
- f) Initiating the "dryrun"

2.4.1.2.3 Managerial Skill

Once an enterprise is set up, managerial skills are required for its survival and growth. Managerial skills include the following qualities:

- a) Accounting and financial control
- b) Marketing
- c) Production planning and inventory control and
- d) Managing the people (who work in the enterprise)

How one can conduct these functions, are learnt through training.

There is a distinction between enterprise building and enterprise management though not in kind but in degree. The skill of enterprise building is required at the initial stage of the setting of an enterprise. When the enterprise starts working, the function of enterprise management starts its role. In other words by taking the advantages of the opportunity in an independent fashion one can build an enterprise while one can start playing the role of manager in the existing enterprise only. It means, for a manager the option is very limited. Whatever he does, ^{he does} for his enterprise only.

After a successful 'dry run' or 'enterprise build up' the entrepreneurial function may be transformed into managerial function.

The entrepreneurial development training programme includes some essential managerial skills (inputs). In the initial programme, the following inputs are included:

- a) Information about support systems, their procedures and policies, legal requirements i.e registration, licensing, infrastructural facilities etc,
- b) Production planning,
- c) Marketing,
- d) Procurement of raw materials and inventory control,
- e) Personnel
- f) Working capital management
- g) Costing account and taxation,
- h) relevant laws,
- i) General management

2.4.1.3 Knowledge

An entrepreneur needs to have knowledge about different

areas which are necessary at the time of starting an enterprise. These are broadly divided into three groups;

Environment,

Industry and

Technology

2.4.1.3.1 Environment

Knowledge about the political and economic environment come under this category. Training may provide a good deal of information about politico-economic environment, government policies, financial and commercial institutions, information about priorities for concessions and incentives, import-export policy, reservation of items etc., taxation policies, availability of raw materials and infrastructural facilities. Entrepreneurial development training provides not only theoretical knowledge but it also gives practical training about the various schemes as implemented by different support-systems, procedural requirement and other formalities.

2.4.1.3.2 Industry

For selecting a particular industry, an entrepreneur should have adequate knowledge about the alternative industries available and at the same time he should know about the industry which he selects to start, scale of investment required, marketability of products, required technology, existing competition, availability of raw materials etc. The knowledge about all these requirements is provided during training.

2.4.1.3.3 Technology

Knowledge about the technology involved in the industry would be necessary. Training provides some knowledge about the

technology required, for manufacturing the given products, alternative technology available for the same, cost and benefits of the different technologies etc.

2.4.2 Socio-cultural Factors

An individual's nature, his values, his attitude, and his norms of behaviour all are determined by the socio-cultural milieu. He works under the pressure of his family's expectations and his behaviour, attitude towards initiative and risk taking, self reliance, dignity of labour, are the result of socialisation process in the family, in school and the society at large. The socialisation process has a very important role in the development of entrepreneur's personality. Hence, there is a necessity to influence one's socio-cultural environment. This may be done through various means viz general education and some specific training programmes i.e. EDIP etc. Both these means can be considered as effective for these changes.

2.4.2.1 Role of Government

Government of India instituted several awards for excellence in small scale sector. The awards have been given to those who start their enterprise and are working on it successfully in rural and backward areas, and also these awards are mainly meant for those who do not have relevant family background but have had success in enterprise building. The prizes are generally distributed in a public function which indirectly encourage the potential entrepreneurs towards these lines.

Another method to reinforce the desirable values of young entrepreneurs is to invite them as guest to a meeting.

This method is being applied by different institutions. By inviting a successful entrepreneur to a conference or get-together and giving them a chance to speak about his enterprise and his experience in this field, the institution develops the leadership qualities among the entrepreneurs and at the same time it provides a psychological impact on them. Through this method the potential entrepreneurs are also motivated towards enterprise build up.

2.4.3 Politico-Economic Environment and Policies

The availability of economic opportunities in a country generally depend on several factors i.e politico-economic environment and policies of the government, financial institutions, commercial establishments, etc. Policy like reservation of certain products for small scale sector, preference in purchasing from small-scale units, incentives for import-substitutions and exports, public investments made for providing infrastructural facility, are influenced by political and economic policies. Sometimes peoples are unaware about these policies. Through several sources viz training etc which is considered as the best source of providing knowledge about these facilities and government policies, to its participants. Moreover, it also provides the trick, how to make best use of the available facilities.

2.4.4 Support Systems

Support systems we mean the facilities provided by various institutions for the development of the small-scale entrepreneurs. The efficient and effective operation of the support system has a vital role in the development of entrepreneurship. Different

institutions engaged in providing supports, has been provided these in various ways. Institutions, viz government departments, promotional corporations and boards, financial institutions i.e. industrial Development Bank of India, Industrial Finance Corporation of India and other several commercial banks, extension services, educational institutions, development administration in the districts, non-government organisations ie consultants, industrial associations, research and training establishment etc. The entrepreneur may feel encouraged or discouraged depending on the functions of these support agencies, because the entrepreneur continuously interacts with their functions. The support systems should strengthen, through interaction with entrepreneurs, values for taking initiative creativity, searching for alternatives, trying out innovations, risk-taking coupled with self-reliance, planning and systematic forecasting etc.

2.4.5 Some Training Institutions and Programmes

As data collected from different institutions and the EDP report of Small Industry extension Training, Hyderabad,²⁰ in India the following institutions are engaged in providing entrepreneurial development training programmes

- a) Small Industries and Service Institute (SISI)
- b) District Industries Centres (DIEOs)
- c) Technical Consultancy Organisations (TCOs)
- d) State Financial Corporations (SFCs)
- e) Different Commercial Banks i.e SBI, PNB, CB, IOB, etc.
- f) Institutions working (under as an autonomous body under the Societies Act) like National Institute for Entrepreneurship and Small-Business Development (NIESBUD)

- g) Management Development Institute (MDI)
Gurgaon, Haryana.
- h) Indian Institute of Technology (IIT)
- i) National Productivity Council (NPC)
- j) Several other volunteer organisations;
 - a) National Institute for Small Industries
Extension Training (NISIT), Hyderabad.
 - b) Entrepreneurial Development Institute
(EDI), Ahmedabad.
 - c) Centre for Entrepreneurial Development
(CED), Ahmedabad.
 - d) National Alliance for Young Entrepreneurs
(NAYE)
- k) Technical Teachers' Training Institute (TTTI)
Chandigarh.
- l) Integrated Training Centre, Bilotheri (Haryana)
- m) Some Engineering Colleges.
- n) Other voluntary organisation like Rotary Club,
Lions Club etc.
- o) All India Manufacturing Organisation (AIMO)

All the institutions which are mentioned above are directly or indirectly concerned with conducting entrepreneurial development training programs.

Small Industries Service Institutes are working under the network of Small Industries Development Organisations (SIDOs) in the Ministry of Industry. In most of the states of India there is one main SISI several branch Institutes and Extension/production Centre. Most of these Institute in addition to their other activities are engaged in conducting certain EDTEPs. under the central scheme.

District Industries Centres (DICs) are also conducting the EDTP. In most of the districts there is one DIC. As per DG (SSI) report (1984) there are 395 DICs which were approved during 1984-85. Though not all but some DICs of some states conducting the EDTPs. In every state there is Directorate of Industries which control the activities of all DICs which are included under its group. DICs are working under the responsibility of State Govt. Technical Consultancy Organisations (TCOs). Most of the state has its TCO. It is a sponsored body organisation. It is sponsored financed by Industrial Development Bank of India (IDBI) and IDCI. Sometimes financed by other commercial banks also but on programme basis. Besides providing consultancy services, they are conducting EDTPs also.

State Financial Corporations (SFC) generally provide financial assistance to different organisation for conducting EDTPs but sometimes in some state SFC involved in EDTPs directly by conducting some programmes.

State Bank of India (SBI), head office, Bombay instruct all the SBI local head office for conducting EDTPs in backward areas of their own state. So that, in all states, SBI apart from their main activities conducting programmes on entrepreneurial development. The lead bank of different states also involved in EDTPs partly.

National Institute for Entrepreneurship and Small Business Development (NIESBUD) was started in July, 1983. It is working as the Government of India Society Act but it is funded by the Central Government. Besides conducting EDTPs this institution

as an apex body conducting the trainers training programmes, some related research work also. Among the volunteer organisations, the National Institute for Small Industries Extension Training (NISSET), Centre for Entrepreneurial Development (CED), and Entrepreneurial Development Institute (EDI) have a very crucial role in the entrepreneurial development field. These three institutions are established exclusively for EDP. They are conducting the entrepreneurial development training programme in full strength. They are called the parents institution of EDP in India.

IITs are also included EDP in their activities. In some IITs, there is a separate cell for EDP where the EDP work has been done.

NDI, NPC also conduct some programmes on entrepreneurial development.

NATP, a voluntary organisation has different branch offices in various states and contribute a crucial role for the development of entrepreneur.

Technical Teachers Training Institute has a separate cell for EDPs who conduct certain training programme for small scale entrepreneurs.

National Small Industries Corporation (NSIC) plays a very crucial role for the development of small scale entrepreneurs by providing export import facilities, machinery on hire-purchasing basis and by providing Proto-Type Development Training on various field. But it is not involved in conducting entrepreneurial Development Training Programme.

All India Manufacturing Organisation provides training to the potential entrepreneurs as well as existing entrepreneurs. It has also several branch offices in different states. EDEP conducted by this institution is corresponding in nature.

As was seen in the discussion SISIs are Central Government Institutions, DIs are State Government Institutions and others are public limited company or voluntary organisations. Also, no organisation is exclusively engaged in conducting EDEP.

CHAPTER III

Costs of EDTP and Its Measurement

All goods and services have some value. Expenditure incurred to get these goods and services is called their costs. All programmes require certain inputs for its performance. The expenditure incurred to get these inputs is called the costs of the programme.

3.1.0 Resource/Inputs Methods

If the resources/inputs used in one programme can be identified and their costs can be ascertained, one can estimate the total costs of that programme. According to the uses of resources they can be broadly divided into 'fixed cost', 'variable cost', 'direct cost' and 'indirect cost'.

'Fixed cost' is defined as the value of resources/inputs which are used and do not change with changes in output of the programme. It is sometimes called the 'overhead cost'. 'variable cost' is just the opposite of the fixed cost. It changes with the amount of output produced.

Costs may be divided into 'direct' and 'indirect' costs depending on the specificity and monetary assessment of the programme. Costs of the resources that can be specifically identified for the operation of a programme is called the 'direct costs', whereas the 'indirect costs' consists the expenditure of the resources whose costs cannot be measured in monetary terms.

3.1.1 Identifying resources

There are various procedures for the identification of the resources. It is generally possible when the evaluator makes himself familiar with the programme. The familiarity with the programme can be possible through review of reports, discussion with the concerned personnel and direct observation of the programme. Among these various methods, the direct observation is considered to be the best. Because there may be the same possibility of unidentification of certain factors through discussions or reading reports/documents etc. But the direct observation of the programme is not always possible. Thus, depending on the situation, one can identify the inputs used in the programme either through their reports and/or direct observation.

Let us try to find out the costs of EDT programme by identifying the resources used in this programme.

3.1.2 Resources required for EDTP

Like other programmes, EDTP has also used certain resources and these resources have also certain costs. In order to find out the costs of this programme, at first we identify the resources used in EDTP. By observing, discussing with concerned persons, and reading documents etc. We feel that the resources generally used in EDTP may be classified into three broad categories:

- 1) Personnel
- 2) Facilities, and
- 3) Equipment and materials

3.1.2.1 (1) Personnel

Personnel includes the human resources used in EDTP. This category includes the full time, part-time and temporary personnel. The personnel used in EDTP are

- 1) Director, Deputy Director,
- 2) Promotional Officers
- 3) Field Investigators
- 4) Administrative staff and
- 5) Guest faculty.

3.1.2.2 Facilities

By *facilities*, we mean the arrangement made by the institution for the benefit of the trainees, for example institutional building free lodging, boarding, transportation, stipend, field visit, help in preparation of project report and others entertainment facilities.

3.1.2.5 Equipment and Materials

These refer to the equipment and materials that are used for the EDTP. EDTP requires equipment like, behavioural games and tools, projector video, furniture etc and materials like stationery, books, course materials and others.

Before discussing the purpose and principles of cost valuation it should be better to make it clear that the above discussed three categories of costs may be fixed and variable depending on their nature.

Fixed cost includes the salaries and other benefits of teaching and non-teaching staff (of the personnel category) costs of the building (of the facilities category) and costs

of furniture and equipments (of the equipment and material category).

Let us discuss how we attempt to measure the fixed costs of EDTP. Before measuring its fixed costs it is necessary to discuss the structure of SISIs and BIRCO at first.

3.2.0 Structure of SISIs

So far as the structure of SISI, Karnal and Patna is concerned both are same in every aspects. In every SISI, there are several divisions which are concerned with multiple functions. Industrial Management Training (IMT) is one of them. There is no separate division in the name of EDP. The IMT division conducted the EDTP programmes besides its own programmes.

Finance

Whatever fund granted to the IMT divisions for its fixed resource is used for EDTP also. In other words no separate fund is given to fixed resources of EDTP. The information collected through personal discussion and interview has indicated that the $\frac{2}{3}$ of total fixed resources of IMT division is used for EDTP. Hence, in order to calculate the fixed costs of EDTP, we have taken $\frac{2}{3}$ rd time of total fixed costs of IMT division.

3.3.0 Structure of BIRCO

The Bihar Industrial Technical Consultancy Organisation Limited (BIRCO) is sponsored jointly by the all India and State level financial institutions. Besides its other activities,

it conducts some programmes on EDTP. In this organisation, there is some separate personnel for EDTP i.e one EDP supervisor, and other non-teaching staff. But the items like building, equipment and materials are concerned, it takes the building and other fixed equipments separately while conducting the EDTP. It means one hall and one room required for EDTP has been taken on rent basis for one month during the training. Similarly, cost incurred on other 'fixed' items, such as salaries etc are also given in their accounts books. Hence, there is no need of applying any method to calculate its fixed cost for building and equipments. Whatever they mentioned in their expenditure chart are taken as its fixed costs.

3.4.0 Methods Used for Valuing Fixed Resources of EDTP SISI

So far as the question of valuing fixed resources is concerned the different methods ^{are} applied ~~is~~ for different items.

3.4.1 Personnel

As mentioned earlier the fixed items viz teaching and non-teaching staff are included under personnel categories. In this study we estimate the personnel's costs by taking into account their salaries benefits, perks etc, which they earn in exchange of their labour.

The structure of staff is exactly the same both for SISI, Karnal and SIBI, Patna. The salary structure other benefits etc are also identical. This is so simply due to the fact that salary, other benefits perks etc are decided at the central

level for each and every SISIs. Given the fact that structure of the staff and their salaries are identical, SISI both at Patna and Karnal are granted the same amounts to meet the expenditure on their personnels.

As noted above, the personnel or staff member work not only for EDTP but they are required to work in other units also. Therefore, we cannot attribute their total/full salaries to EDTP. As mentioned earlier, we have assumed that they spend only 2/3 of their time on EDTP. Hence, we take 2/3 of their salary as expenditure for EDTP. The personnel costs of EDTP in SISIs are as follows:

Table 3.1

Items	INF + EDTP	EDTP (2/3 of 2nd column)
1	2	3
1) Salaries & allowances of faculty members	Rs. 45200/-	Rs. 29800/-
2) Salaries and allowances of non-faculty staff	Rs. 91200/-	Rs. 60800/-

Sources: 1984-85 Annual Report of SISI Karnal and SISI Patna.
1984-85 Account Register of DC SSI
Personal discussion with director, deputy director of SISI, Karnal.

4.2 Facilities

The costs of most of the items under facilities group are estimated by the institutions. Sometimes, one institution may have considered building depreciation as a programme costs while another institution did not. But as we know it is also

a part of total programme costs. Therefore, its cost valuation is necessary to know the exact costs of EDTP.

One can estimate the annual costs of building by applying either of the two methods. These methods are (i) if the building can be rented out one can take the annual lease value or rental value of the building; and (ii) by taking its depreciation and interest on the remaining value. The later one is quite complicated to calculate because it requires the knowledge of three factors; (a) the replacement cost of the building; (b) the life span of the building, and (c) the rate of interest that is foregone by investing in a building. All these information about a building is difficult to get. As it is easier to get the information on rental value, this study used the rental value method. In fact, necessary information is supplied by the SISI's Annual Report as well as through personal discussion it is easy to get the monthly rental value of the building in the market. The same IIT building is used for EDTP also. By ascertaining the monthly rent of this (IIT) building we determine the monthly value of EDTP building by applying the same formula i.e $\frac{2}{3}$ of total rental value. By taking the monthly rental value, we multiplied it by 12 to get the annual rental value. The building costs of SISI Patna and Karnal is different depending on the rental value of the building in the market. The calculated rental value of EDTP building of SISIs are:

Table 3.2

Institutions	Items	INT + EDP	EDTP
SISI, Karnal	Building cost	Rs. 36000.00	Rs 24000.00
SISI, Patna	Building cost	Rs. 27840.00	Rs. 19560.00

Source: 1984-85 Annual Report of SISI Patna and Karnal. Personal discussion.

3.4.3 Equipment

Like building, the costs of equipment, furniture, library books, behavioural games etc may be measured by taking either the rental value or the depreciation value of the same. This study, has taken the rough figure of rental value of all these items which are shown below:

Table 3.3

Institution	Items	INT + EDTP	EDTP
SISI, Karnal	Equipments	Rs. 12000.00	Rs. 8000.00
SISI, Patna	Equipments	Rs. 9400.00	Rs. 6400.00

Source: Through personal discussion.
1984-85 Annual Report of SISI Patna & Karnal.

In this way, we calculate the fixed costs of EDTP. The above figures/costs of EDTP implies the annual fixed costs of EDTP. In order to calculate the fixed costs of per EDTP, we divided the total annual fixed costs of EDTP by the number of

EDTP conducted during that year. Sometimes the difficulty arises when all the EDTPs are not same in duration. For example, most of the EDTPs of SIS Is are one month in duration but some are two months in duration. In such cases, we find out the fixed cost of EDTP having one month duration and if the EDTP is two months duration we simply multiply the former costs into two and thus make them comparable with other programme.

Both fixed costs and variable costs are included in total costs. Let us discuss about the variable costs.

3.5.0 Variable Costs and its Measurement

'Variable Costs' are those costs which vary from programme to programme depending on the nature of the training. The costs of following factors come under this category of EDTP:

- a) Inauguration
- b) Validation
- c) Stipend
- d) Stationery
- e) Inplant visit
- f) Honorarium to the guest faculty
- g) Transportation
- h) Course material
- i) Miscellaneous expenses
- j) Other expenses

3.5.1 Cost Valuation of Variable Factors of EDTP

There are two methods of collecting the variable of costs of EDTP of SIS Is (a) Government budget/fund which it granted to its institutions for conducting EDTP, (b) the actual cost data of EDTP, which are available in the institution.

The central government prepared the budget of EDTP (for SIBIs) where it includes the costs of variable factors only. Besides, it fixes the duration and types of EDTP and the number of participants (for detail see Appendix 'A').

3.5.2 Inadequacy of Budget for Cost Analysis

The question arises why should we estimate costs? When the government prepare the budget for EDTP which contain the expenditure. What is the need for estimating the cost separately. Answer to this we can say that the budget prepared by the government has certain drawbacks i.e.,

First, it is very aggregated in nature. It does not include cost information of all the resources that are used in the EDTP.

Secondly, it does not include the costs of resources which are incurred initially, for example, the cost of the building, equipment etc.

Thirdly, it does not show the true costs of EDTP. It includes the costs of variable factors only. It completely excludes the costs of fixed factor; building, salary of the teaching and non-teaching staff etc. But to know the total costs of EDTP it should be necessary to have the knowledge of its fixed costs also.

Fourthly, it includes the 'planned' expenditure which may substantially differ from the 'actual' amount spent.

Because of these reasons, we can say that though government budget is necessary but not sufficient to measure the

costs of EDTP. Therefore, we have collected the government budget of EDTP and shown the cost pattern of EDTP separately (in appendix 'A' because the fund granted to different institutions are based on that pattern.

The present study has not taken the government budget for the cost analysis of EDTP. It believes on the 'actual expenses which were incurred by the institutions for EDTP.

3.6.7 Total costs and Unit Costs

Before measuring the costs of EDTP, let us discuss about the total costs and unit costs.

'Total Cost' is nothing but summation of fixed costs and variable costs. In other words it may be estimated by adding the costs of all the factors (fixed & variable) used in the programme.

'Unit cost' is called the average cost. It can be calculated by dividing the total costs of the programme by the number of programmes conducted. Here we get the 'unit cost of per programme'. In order to find out the unit cost of per trainee we can divide the total costs of programme by the number of persons attending that programme. The formulae used here are:

$$\frac{TC}{NP} = UPP$$

TC = Total costs

NP = Number of programme

UPP= Unit cost per programme

$$\frac{TC}{NT} = UPT$$

NT = Number of trainees

UPT= Unit cost per trainee

It is useful to estimate the unit costs per programme as well as per trainee because it is helpful for future planning. Information regarding unit cost is needed:

- i) at the time of financial allocation (among different institutions) and also for calculating the cost of programme;
- ii) for studying the level of efficiency of different institutions;
- iii) to ensure the optimum utilisation of resources available in the institute;
- iv) to measure the effectiveness of training programme;
- v) to know the training cost of our extra trainee or marginal cost of trainees;
- vi) to start a new institution, etc

Because of these benefits of unit costs, we have estimated it in our study. In order to make the thing more easier we estimate the unit cost per programme, conducted by our three institutions, and also the unit cost of per trainee who attended the different programme during 1983-84. While using the 'unit cost' in any practical situation, we must remember that it has some limitations also.

3.6.1 Limitations of Unit Cost

Everything has its own limitations. Unit costs are also affected by various factors;

- i) Types and duration of programme
- ii) Age of the institutions may influence the 'unit cost' of the training programme of these institutions
- iii) Any improvement in the existing institute.

We must keep in our view these limitations while using the unit cost measurement.

3. 7.3 Activities of Three Institutions During 1983-84.

While calculating the costs of IDDP of three institutions in question during 1983-84, we must have the knowledge of their activities (IDDP) during that year. By activities here we mean the number of programmes conducted, types and number of trainees who participated in different programmes conducted by three institutions. The following tables consist of three columns showing the type of programmes, number of programmes conducted and number of participants trained during 1983-84.

Table 3.4

SIESL, Karnal

Types of programme	No of programme	No of participants trained
Wagon	1	52
Educated unemployed	1	33
Welder section	1	28
Engineer	1	36
Total	4	129

Sources: Annual Report of IDDP, SIESL, Karnal,
Personal discussion and survey conducted
by the researcher.

Table 3.5

SISI, Patna

Types of programs	No of programs	No of participants trained
Women	1	26
Worker section	1	25
Rural Artisans	1	30
Technician & Foreman	1	25
Total	4	106

Source: Annual Report of SISI, Patna, 1984
 Personal discussion and survey which was conducted by the researcher

Table 3.6

BEEO, Patna

Type of programs	No of programs	No of participants trained
Women	1	30
Worker section	1	25
Educated unemployed	1	35
Science & technology	1	30
Tribal	1	20
Total	5	140

Source: Annual Report of BEEO
 Personal discussion during survey
 BEEO's register.

The foregoing section described the activities of three institutions on entrepreneurial development training programme (EDTP) during 1983-84. SISI As the tables show, SISI, Karnal and Patna have conducted 4 programmes each where the BECO has conducted 5 programmes. SISI, Karnal trained 124 participants, SISI, Patna trained 106 participants whereas BECO trained 140 participants during that year.

3.8.1 Actual Costs of EDTP of Three Institutions During 1983-84.

In this section we attempt to analyse the costs of EDTP of three institutions on the basis of hypotheses which we framed. (For these hypotheses, see above chapter I. p)

3.8.1 The testing of first hypothesis requires an estimate of average costs of per programme and per trainee of two institutions. Here we have selected SISI, Patna and BECO, Patna for this purpose because both are in same locality. As we discussed the unit cost of per EDTP programme is calculated by taking the total costs of EDTP and dividing it by the number of programmes conducted. The unit costs of per programme in SISI, Patna during 1983-84 can be calculated by taking its total costs and dividing it by number of programmes conducted (4). Similarly to get the unit cost of per programme in BECO we divide its total costs by 5. Likewise the unit cost of per trainee in SISI, Patna and BECO can be calculated by dividing their total costs by 106 and 140 respectively (whom they trained during 1983-84). The following table shows the things in detail:

Table 3.7

SISI, Patna

				In Rs
S.No	Type of Programme (1)	Total Costs (2)	No of trainees (3)	Unit cost per trainee (4)
1	Rural Artisan	62724.00	30	2090.80
2	Women	29185.20	26	1120.20
3	Technician & Foreman	27500.00	25	1100.00
4	Worker Section	27620.00	25	1112.80
Total		147169.20	106	1388.50

Sources: Cost register, EDEP of SISI, Patna, in DC. SSI
Annual Report of SISI,
Cost Register of SISI, Patna & personal discussion
during survey

Note: The break up of the costs for EDEPs are available in
in Appendix 'B'

Table 3.8

BISCO, Patna

S.No	Type of programme (1)	Total costs (2)	No of trainees (3)	Unit cost per trainee (4)
1	Science & Technology	62400.00	30	2080.00
2	Women	70500.00	30	2350.00
3	Tribal people	53800.00	20	2690.00
4	Educated unemployed	65240.00	35	1864.00
5	Worker Section	53100.00	25	2124.00
Total costs		315040.00	140	2250.29

Sources: Cost pattern of EDE submitted in DBI by BISCO, Patna
Cost pattern of EDE submitted in HIESUB by BISCO, Patna
(BISCO, file no EAP 1983-84 of UNLSD)

Note: The break of costs of EDEPs are enclosed in Appendix 'C'

The above tables 5.7 and 5.8 consists of 4 columns indicating the types of programmes, total costs of EDPE, number of persons trained and unit costs of per trainee.

The table 5.7 shows the costs of SISI, Patna. The first column of this table shows the types of EDPE Programmes conducted by SISI, Patna. Column 2 shows the total costs of each EDPE. It is the combination of both fixed costs as well as variable costs. Column 3 indicates the number of participants trained under different EDPE programmes. Column 4 shows the unit costs per trainee for each programme which is estimated by dividing the total costs of one programme by the number of participants trained under this programme. The total cost row shows the total costs of all these 4 programmes, total number of trainees trained under these 4 programmes and its unit cost per trainee.

Alike table 5.7, table 5.8 shows the different costs of EDPE of BICU, Patna during 1983-84.

Average cost of EDPE programme is calculated by applying the formula:

$$\frac{\text{TEPs}}{\text{NPs}} = \text{ACEP}$$

TEPs = Total costs of programmes

NPs = Number of programmes

ACEP = Average cost per programme

Here the average cost of EDPE in SISI, Patna is

$$\text{Rs. } \frac{147169.20}{4} = \text{Rs. } 36792.50 \quad \dots\dots 1$$

Similarly, the average cost of EDPE in BICU is

$$\text{Rs. } \frac{315000.00}{5} = \text{Rs. } 63000.00 \quad \dots\dots 2$$

These calculations indicate that the average costs per programme of IDEP in SISI, Patna is Rs. 56792.50 whereas in BIECO, Patna, Rs. 65008.00, which is quite higher than former institution. Likewise (as table 5.7 and 5.8 show) the average cost of per trainee in BIECO is Rs. 2311.60, which is higher than SISI, Patna i.e. Rs. 1388.4. As a whole, we can say that the average costs of IDEP as well as the per trainees in BIECO is much more than of SISI, Patna during 1983-84.

3.6.2 The testing of second hypothesis needs the calculation of costs of IDEP of two institutions which are located in two different localities. In this study, we have selected the SISI, Patna and SEI, Karnal for this purpose. These two institutions are same in every aspects except in their locality.

To estimate the total costs of IDEPs in SEI, Karnal we calculate the costs of every IDEP conducted by it during 1983-84. The adding of all these costs we get the total costs of IDEP during that year.

The average costs of per IDEP can be found by dividing its total costs by the number of programmes (4)

$$\begin{aligned} \frac{\text{TCs}}{\text{IPs}} &= \frac{190192.60}{4} \\ &= \text{ACIP} = \text{Rs. } 47548.20 \end{aligned}$$

Similarly the unit costs of per trainee can be found by dividing the total costs of IDEP by the number of persons trained.

As mentioned earlier, the costs of IDEP in SEI, Patna is also estimated by the same methods. The above table 5.7 shows the costs of IDEP in SISI, Patna during 1983-84.

The table 3.9 shows the costs of SISI, Karnal during 1983-84

Table 3.9
SISI, Karnal

S.No	Types of Programme (1)	Total Costs (2)	No of trainee (3)	Unit cost per trainee (4)
1.	Women	36517.12	32	1141.16
2.	Engineering	90899.98	36	2525.00
3.	Weaker section	26034.16	23	1131.92
4.	Educated unemployed	36741.54	33	1113.38
	Total costs	190192.80	124	1477.86

Sources Annual Report of SISI, Karnal, Personal discussion DC, SSI, register of SISI, Karnal

Note: See the detail break of costs of its EDTP, see Appendix 'D'

Like 3.7 and 3.8, table 3.9 also consists of 4 columns and indicates the different costs of EDTP. This table shows that the total costs of all EDTPs are Rs. 190192.80 whereas average costs per programme (as calculated) is Rs. 47548.20. Likewise, the average costs per trainee is Rs. 1477.86

As calculated the average costs of per EDTP (In SISI, Patna) is Rs. 36792.30, whereas same for per trainee is Rs. 1388.4

While comparing these two tables (3.7 and 3.9) we find that unit costs per programme and per trainee in SISI, Karnal

is higher than these costs in SISI, Patna. Though the difference is not much. Whatever it may be, with other things remaining the same, we can say that this difference is only because of location factor.

3.8.3 The testing of third hypothesis requires the measurement of costs of different types of EDTP. Here we select the SISI, Karnal for this purpose. During 1983-84, SISI, Karnal has conducted 4 types of EDTP; women, weaker section, Engineers and educated unemployed. By types of EDTP, we mean the categories of trainees for whom it is imparted.

As shown in table 3.9, the total costs incurred by SISI, Karnal for women, weaker section of the society, engineers and educated unemployed people are Rs. 36517.12, Rs. 26034.16, Rs. 90899.98 and Rs. 36741.54 respectively. Likewise the unit costs of per trainee of different programmes are Rs. 1141.16, Rs. 1151.92, Rs. 2525.00 and Rs. 1113.38.

The column 2 of table 3.9 shows that the total costs of engineering programme is much higher than others. The reason is that the duration of engineering programme is two months whereas the duration for other programmes are one month only. Therefore, the costs of engineering programme is higher than other programmes which have shorter duration (1 month).

In order to make these programmes comparable let us divide the total costs of engineers programmes by two (2) (because it is two months course whereas others are one month course).

$$\text{Rs. } \frac{90899.98}{2} = \text{Rs } 45449.99$$

The total costs of engineering programme for one month is Rs. 45449.99. On that basis we calculate the unit cost of per engineer trainee

$$\frac{TC}{NT} = UCT$$

$$\frac{TC}{NT} = \frac{\text{Rs. } 45449.99}{36} = \text{Rs. } 1262.49 \text{ (UCT)}$$

Here, the unit costs per engineer trainee is Rs. 1262.49.

Now we can compare the total costs and unit costs per trainee of different types of programmes. As shown from the above discussion both these costs are higher in case of engineering programme than of others. The costs of all programmes, except engineering, are almost same.

There are all about the costs of EDEP of three institutions in question during 1963-64. The main aim of our study is to measure the cost effectiveness of EDEP. In order to measure it, the measurement of costs of EDEP is necessary but not sufficient. Besides cost, the effectiveness estimation is also important. Therefore, without measuring the effectiveness we cannot draw any conclusion about EDEP. Because the higher cost (EDP) is not always bad if its effectiveness is also higher.

Hence, before drawing any conclusion, we study in chapter IV, the effectiveness of different programmes of the institutions in question.

CHAPTER IV

EFFECTIVENESS OF EDTP AND ITS IIT SURVIVORS

In chapter III we saw the cost pattern of entrepreneurial development training programs (EDTP) in case of three training institutions in question. This chapter attempts to measure the effectiveness/outcome of these training programmes.

Before measuring the effectiveness of EDTP, let us discuss what is "effectiveness" and how it is defined in this study.

4.1.3 Formal Education and EDTP

Although there is a similarity between EDTP and general education/training process. Yet, a clear line of demarcation also exists, i.e. EDTP has its own peculiarity. Like industrial firms, EDTP institutions are producing some outputs and require some inputs. The main output of these institutions is "training" imparted to various entrepreneurs. The aim/goal of this training is to prepare a successful entrepreneur.

From the output point of view EDTP is same with general education because an education produced the educated student EDTP has produced the trained entrepreneur. When the question of measurement of value of their output is concerned EDTP is different from general education. One can place the value on output of education. For example, there is some specific labour market for graduates, post-graduates etc. One can

estimate the value of a graduate from given market wage-rates. Though, this system has its own weaknesses and does not give the true picture of the thing. Yet, sometimes it can be possible with certain assumption.

So far output of EDTP is concerned, it is not possible to place any specific value on its outcome. Because there is no special market for an entrepreneur from where one can measure its value. First, in value term all the entrepreneurs are not the same. In other words, entrepreneurs trained from the same institution earn different rate of profits. Secondly, the rate of profit is not same forever. Whatever it is at present, it may or may not be so in future. Due to these reasons, its qualitative assessment is difficult.

4.2.3 Quantitative Measurement

To avoid the above problem, the present study attempts to measure its output quantitatively. Quantitative in the sense by counting the number of entrepreneurs trained and out of those trained persons how many started their entrepreneurial units. In other words, how many trainees are capable to start their units. The high number of trainees who started their units indicates the higher effectiveness of the training.

The number of successful entrepreneurs is high or low not only because of the "training" but also on the provision of 'facilities' available during the training. In order to make it more clear let us compare the facilities available in three institutions and their rate of success (no of succes-

eful entrepreneurs).

4.3.3 Effectiveness on the Facilities Basis

"Better the facilities better the rate of success". Facilities broadly mean the number of faculty, lodging and boarding, follow up activities, helps provided in project identification and project preparation etc.

From the facilities point of view, all the central government institutions are equal. Hence, there is no need to discuss SISI, Karnal and SISI, Patna separately on the basis of facilities. But there is a lot of differences between SISIg and (central government institutions) and Bihar Industrial Technical Consultancy Organisation (BISCO, sponsored body organisation). In the following, section we compare the facilities provision in these two institutions (SISI & BISCO).

BISCO provides the lodging and boarding facilities to its participants free of cost. So that, the participants from outside Patna also can come for training. But in SISI, there is no such facilities. Therefore, its programmes are restricted to the local area only. As a result the number of persons who benefited from its training is less in comparison to BISCO, Patna.

In terms of faculty provision/availability BISCO is better than SISI. Some faculty members of BISCO are exclusively engaged in conducting EDTP. But in case of SISI, no one is exclusively engaged in EDTP. As mentioned earlier, the faculty members of SISI are conducting both Industrial Management Training Programme (IMT) as well as Entrepreneurial Development

Training Programme (ETP). In other words they have to perform multiple tasks. Therefore, they can't give such attention towards ETP as BITCO's members can.

So far as the project preparation and market survey are concerned, BITCO provides these facilities. BITCO conducts market survey for different items in various areas and gives suggestions to its participants about the position of that particular district with respect to particular items. Thus, it helps the trainees in selecting the items of production for their future units. It also helps the trainees at the time of preparation of project report. But SISI does not provide such facilities for its participants.

Follow-up activities is considered as a crucial factor for the effectiveness of training programme. BITCO has taken this activity seriously and gives emphasis on it.

By follow-up activities we mean the contact that an institution may establish with its trainees. It may keep records of their progress and provide help/guidance if required to enable them in setting up an enterprise. This post training help is required because sometimes what they had learnt in the class is different than what they face in the real life. In such situation they become puzzled and require the guidance of others. If institution watches the activities of its trainees then it can come to their rescue by guiding and encouraging them in such critical situation. In BITCO there is one EDP supervisor who visits the field periodically and conduct this activity. But in SISI, because of the shortage of staff they

cannot contact the people personally.

In short, from the point of view of facilities provision, the BITCO's training programmes are more effective than SBL.

4.4.0 Effectiveness on the Basis of Objectives

Facilities provision does not always give the true picture of programme's effectiveness. In such cases the fulfilment of programme's objectives is considered as the best weapon to measure its effectiveness.

Every programme has certain objectives. Like others, EDTP is also based on certain objectives i.e. to make the entrepreneurs conscious of their hidden entrepreneurial qualities and motivate them to set up an enterprise. Once the objectives of the training have been identified, the effectiveness can be estimated by its results.

There are various types of methods of project evaluation. They can be broadly categorised into two viz. 'Formative' and 'Summative' evaluation.

4.5.0 Evaluation

4.5.1 Formative Evaluation

By 'formative evaluation', Stanley (1984)¹ means those strategies which study the training process from the very early stages of Training Needs Assessment, to objective setting and throughout the implementation. It sometimes continues to the point of studying post training application of what was learnt.

The actors who are directly involved in the training can get regular feed back from this type of evaluation. Formative

evaluation is more useful to enhance adjustments and improvements that will make the execution of training more effective, in terms of facilitating learning. It is not useful to evaluate the EDTP because the effectiveness of EDTP is measured in terms of the number successful entrepreneurs in starting their enterprise.

4.5.2 Summative Evaluation

It measures the final results of a training programme. The purpose of this evaluation is to give report/information about the extent to which the completed activity has met the objectives/goals that were set. It provides the final results of the programme either in quantitative or qualitative terms.

Summative evaluation may help to improve future programmes only. However, the formative evaluation helps to improve the current ongoing activities only.

The effectiveness of any training should be measured because it may help us to improve both current and/or future planning programming and decision making. That's why the summative and formative evaluation has no value if they used separately.

4.6.© Formula used to Measure the Effectiveness of EDTP

The formula which we adopt to measure the effectiveness of EDTP is;

$$\frac{NPS}{TPT}$$

NPS = Number of trained persons who started their units

TPT = Total persons trained

It means the number of persons who started their unit out of the total persons trained.

Let us measure the effectiveness of EDTP conducted by three institutions in question during 1983-84. Before estimating its effectiveness we must have the knowledge of total persons trained under different institutions during that year and the number of persons who started their units after taking training.

The following three tables (4.1, 4.2 & 4.3) give the relevant knowledge of three institutions and also attempt to measure their effectiveness on the basis of their available statistics.

Like cost, the effectiveness can also be estimated for verifying hypotheses which we framed in chapter. I.

4.6.1 The first hypothesis requires measurements of the effectiveness of EDTP in two institutions. Here we have selected the SSI, Patna and BECO Patna. The following tables 4.1 and 4.2 indicate the effectiveness of EDTP in SSI, Patna and BECO Patna during 1983-84.

These tables (4.1 and 4.2) have four columns each. The column I indicates the types of programmes conducted by the institution. Column 2 indicates the number of trainees who attended different training. Column 3 indicates the number of persons/participants who started their unit and the column 4 estimates the effectiveness of different training programmes by dividing column 3 by column 2 ($3/2$).

Table 4.1

Effectiveness of SISI, Patna

Types of Programme	No of trainees	No of persons started their unit	Effectiveness
1	2	3	4
Women	26	6	0.23
Weaker Section	25	4	0.16
Technician and Foreman	25	4	0.16
Rural Artisans	30	4	0.13
Total	106	18	0.17

Sources: Annual Report of EDP, SISI, Patna, DC, SSI, register, EDP, 1984-85
 Survey conducted by the author
 Status Analysis of EDP in India
 NIESBUD's Publication

Table 4.2

Effectiveness of BICO

Types of Programme	No of trainees	No. of participants started their unit	Effectiveness
Women	30	12	0.40
Weaker section	25	10	0.40
Educated unemployed	35	15	0.43
Science and Tech- -nology	30	12	0.40
Tribal	20	7	0.35
Total	140	56	0.40

Sources: NIESBUD's file No. BICO/EDP/1984-85.
 Status Analysis of EDP in India, NIESBUD, 1985
 DBI Report. BICO's report to DBI.

From the above tables it is clear that the average effectiveness of EDTP in SISI, Patna is 0.17 whereas it is 0.40 in BITCO, Patna. It indicates the the effectiveness of EDTP in BITCO is much higher than in SISI. 'Effectiveness' as measured here must be juxtaposed with the costs incurred by two institutions. In other words, one must compare effectiveness with costs. Without such comparison one cannot conclude with programme is relatively better. So that, we make this comparison in the section 7.0 of this chapter.

4.6.2 Second hypothesis requires a comparison between the effectiveness of two institutions which are situated in different localities. In our study SBI, Karnal and SISI, Patna are located in two different localities. The Table 4.3 indicates the effectiveness of EDTP conducted by SISI, Karnal during 1983-84.

Table 4.3

Effectiveness of SISI, Karnal

Types of Programme	No of trainees	No of persons started their units	Effective ness
Women	32	9	0.28
Educated unemployed	33	7	0.21
Weaker section	23	6	0.26
Engineer	36	9	0.25
Total	124	29	0.25

Source: Annual Report of EDP, SISI, Karnal
EDP register No. SISI/EDP/1984-85, DC, SSI
status Analysis of EDP in India, NISSID, 1985
survey conducted by research

Table 4.1 shows the effectiveness of SISI, Patna which we have discussed earlier.

The tables 4.1 and 4.3 indicates that the average effectiveness of SISI, Patna is 0.17 whereas in SISI, Karnal it is 0.25. From the point of view of effectiveness alone we can say that EDTP in SISI, Karnal is more effective than it is in SISI, Patna. But as we have said earlier, effectiveness alone (i.e without consideration of cost) does not show the true picture of the EDTP.

4.6.3 The testing of third hypothesis require estimates of the effectiveness of different training programmes of one institution. Here we estimate the effectiveness of EDTPs of SISI, Karnal.

The above table 4.3 shows a clear picture of the effectiveness of different programmes conducted by SISI, Karnal during 1983-84. As shown in this table, the effectiveness of women programme is highest (0.28) followed by weaker section and Engineering programme i.e 0.26 and 0.25 respectively. The effectiveness of educated unemployed programme is lowest (0.21) On the whole we may say that there is not much difference in the effectiveness of these programmes.

The assessment of effectiveness is not enough to measure the cost-effectiveness of EDTP. Therefore, in the following section we try to incorporate the effectiveness of the EDTP into its costs to measure its cost-effectiveness.

4.7. Cost-effectiveness and its Measurement

The combination of costs and effectiveness shows the amount

of effectiveness that can be obtained for an estimated cost. When we compare the cost-effectiveness of different EDTP conducted by three institutions we will find out the programme which is most cost-effective i.e. where cost per unit is lowest.

- 4.7.1 In order to measure the cost effectiveness of training programme we used the following method:

$$\frac{CPT}{EPT} = CE$$

CPT = Cost per trainee

EPT = Effectiveness per trainee

CE = Cost-effectiveness

The following three tables; 4.4, 4.5 and 4.6 attempt to measure the cost-effectiveness of EDTP of three institutions; SISI, Patna, BICO, Patna and SISI, Karnal respectively.

The formula adopted to measure the cost-effectiveness requires a knowledge of cost per trainee and effectiveness per trainee of each EDTP. In order to get the above information we measured the cost per trainee in chapter III and effectiveness per trainee in the earlier part of this chapter.

Tables (4.4, 4.5, & 4.6) having 3 columns indicate the cost per trainee, effectiveness per trainee and cost-effectiveness, serially. The column I of tables 4.4, 4.5 and 4.6 is same with column 4 of table 3.7, 3.8 and 3.9 respectively. Similarly column II is same as column 4 of table 4.1, 4.2 and 4.3 respectively.

Cost-effectiveness of EDTPs of three Institutions
During 1983-84

Table 4.4

Cost-effectiveness of SBI, Patna

Types of Programme	Costs per	Effectiveness	Cost-effective
	trainee	per trainee	ness C/E
	I	II (2)	III (3)
Women	1120.20	0.23	4870.43
Weaker Section	1112.50	0.16	6955.00
Technician Foremen	1100.00	0.16	6875.00
Rural Artisans	2090.80	0.13	16085.08
Average	1388.40	0.17	7975.00

Sources: Column I and 2 from III chapter column 4 of table 3.7 and from IV chapter column 4 of table 4.1 respectively. Column 3 is calculated by dividing by I by column 2.

Table 4.5

Cost-effectiveness of BITCO, Patna

Types of Programme	Cost per trainee in Re.	Effectiveness per trainee	Cost-effectiveness
Women	2350.00	0.40	5875.00
Weaker Section	2324.00	0.40	5810.00
Educated unemployed	1864.00	0.43	4334.88
Science and Technology	2080.00	0.40	5200.00
Tribal	2940.00	0.35	8400.00
Average	2311.60	0.40	5779.00

Sources: Column 1 and 2 is similar with column 4 of table 3.8 and 4.2 respectively. Column 3 is calculated from column 1 and 2 of Table 4.5

Table 4.6

Cost-effectiveness of SBI, Karnal

Types of programme	Cost per trainee in rupees	Effectiveness per trainee	Cost-effectiveness
	1	2	3
Women	1141.16	0.28	4075.57
Educated unemployed	1113.38	0.21	5301.80
Weaker section	1131.92	0.26	4353.54
Engineer	2525.00	0.25	10100.00
Average	1477.86	0.29	5096.07

Sources: Column 1 and 2 are taken from column 4 of table 3.9 and 4.3 respectively. Column 3 is calculated from column 1 and 2 of table 4.6

The table 4.4 and 4.5 indicate that the average cost-effectiveness of per trainee in BIECO is lower than that for SISI, Patna. BIECO requires Rs. 5779 for one trainee whereas SISI, Patna requires Rs. 7975 per trainee. Therefore, we can say EDTP in BIECO is more cost-effective than in SISI, Patna

Table 4.6 shows that the average cost-effectiveness of EDTP in SISI, Karnal is Rs. 5096.07 per trainee whereas as table 4.4 shows in Patna it is Rs. 7975, which is higher than Karnal. Though the institutions are same in every aspects except in locality. Thus, we can say that the locality factor is responsible to make the Karnal's programmes more cost-effective than Patna's programme.

Cost-effectiveness of different types of programme (EDTP) of SISI, Karnal are shown in table 4.6. The problem which we face is that all the programmes except engineering are for a period of one month. Engineering programme is two months in duration. In order to make it comparable with others we simply divided its total costs by two (2) and then estimate its cost-effectiveness.

As shown in chapter III, the unit costs per engineer is Rs. 1262.49 and its effectiveness is 0.25 as measured in chapter IV. So the cost-effectiveness of per engineer is,

$$\text{Rs. } \frac{1262.49}{0.25} = 5050$$

Let us compare the cost-effectiveness of all programmes conducted by SISI, Karnal. As table 4.6 shows, the institu-

tion requires Rs. 5304.80 per educated unemployed trainee which is followed by per engineer trainee (Rs. 5050). Whereas Rs. 4075.57 is required for per woman trainee and Rs. 4353.54 for per weaker section trainee. By comparing the cost-effectiveness of these 4 programmes we can say that the women's programmes is most cost-effective and educated unemployed programme is least cost-effective.

CHAPTER V

CONCLUSION

The concluding chapter examines the performance of 'Entrepreneurial Development Training Programme' (EDTP) which is conducted by various institutions (three institutions in question). Apart from this, objectives and corresponding hypotheses, which we framed in Chapter I, are also depicted in this Chapter. In short, we can say that the concluding chapter is a summation of all the questions raised in the previous chapters.

Let us examine the objectives and hypotheses which form the basis of our study. The objectives of this paper are;

i) what are the costs of EDTP ?

ii) what are the different types of EDTP ?

Do the costs differ from programme to programme ?

iii) Do the costs have any impact on the rate of success

iv) what are the different objectives of EDTP?

iv)a how EDTP's effectiveness may be measured ?

what may be the methodology for the same ?

v) Is the rate of success influenced by the type of programmes ?

vi) Does the locality of training has any impact on its rate of success ?

Hypotheses which formed the basis of the present study are:

1) The higher the cost the higher will be the rate of success, other things remaining the same.

2) Differences in the rate of success may be due to difference in locality of training.

3) The rate of success of EDTP will differ depending on the categories of trainees (women, educated unemployed, rural artisans etc....) attended the training.

5.1.3 Objectives of the Study

5.1.1 The first objective of the study required to find out the cost of entrepreneurial development training programme. Chapter III deals with the cost measurement of EDTP. It identified all the items required for EDTP and measured their costs. By adding the expenditures incurred on individual items, we get the total costs of EDTP.

5.1.2 The second objective required the knowledge about the different types of EDTP and differences if any, in their costs. Chapter III examined both the objectives. Different types of programmes means the programmes conducted for whom. In other words what are the different categories of trainees under EDTP. Our study found that the following categories of persons are trained in EDTP programmes:

- a) Women
- b) Worker section
- c) Educated unemployed
- d) Tribal
- e) Engineers
- f) Technicians & foremen
- g) Rural Artisans
- h) Science and technology etc

Table 39 of chapter III shows that the costs differ depending on the types of the programme even if the programmes are conducted by the same institution.

5.1.3 The third objective required to know the relationship between costs of EDTP and its rate of success (effectiveness). Tables 37 and 38 of chapter III and tables 41 and 42 of Chapter IV show that, there is a positive co-relation between costs of EDTP and its rate of success. In other words, higher the cost, higher is the rate of success. We may say that costs has a positive impact on the rate of success of a programme.

5.1.4 Fourth objective inquired about the aims of EDTP. Fifth objective was to describe the method applied to measure EDTP's effectiveness. First Chapter IV describes, the aims and objectives of EDTP. Second, there is discussion of the method/formula adopted for the measurement of EDTP's effectiveness.

The objectives of EDTP is to prepare a successful entrepreneur. Its effectiveness is measured by applying the following formula:

$$\frac{NES}{TPT} = E = R.S$$

NES = Number of trainees who started their unit.

TPT = Total persons trained.

E = Effectiveness.

R.S = Rate of success.

5.1.5 Fifth objective required to find out the relationship between types of programme and their rate of success. Table 43 of chapter IV shows, the rate of success differs from

programme to programme even if the programmes are conducted by the same institution. Thus one may say that with other things remaining the same, the rate of success is low or high depending on the 'type' of trainees attending the programme. Type of trainees means whether they are engineers, women, educated unemployed rural artisans etc.

5. 1.6 Sixth objective tried to find out the state of the locality on the rate of success. Relevant results are given in Table 42 and 43 of chapter IV. They measured the rate of success of two institutions which were same in every aspects except in terms of locality. It was reported in chapter IV, the rate of success of both institutions differed from one another; the rate of success is higher in an advanced locality and is lower in a backward locality

5. 2.0 Hypotheses

5. 2.1 Let us now recall our hypotheses. The first two hypotheses need the inter-institutional comparison and the third hypotheses requires intra - institutional comparison.

Inter-institutional Comparison

First hypothesis was that there is a positive co-relation between costs of EDTP and its rate of success (effectiveness). Let us discuss how far it is true.

From the case study of two different institutions (BICO and SSI, Patna) we found that the cost-effectiveness of EDTP is substantially lower than that of SSI, Patna (see tables 44 and 45) Why it is so ? Answer may be found by looking at the costs and effectiveness of EDTP in BICO and SSI, Patna.

Tables 3.7 and 3.8 report that the unit costs per trainee in BIRCO is higher than that in SISI, Patna. Similarly, as table 4.1 and 4.2 of chapter IV show, the per unit effectiveness of EDTP in BIRCO is higher than that in SISI, Patna. From these discussions we can say that in case of BIRCO, with other things remaining the same, the effectiveness of EDTP is higher because its costs is higher and in case of SISI, Patna its effectiveness is lower because of its low costs.

In short we may say that there is a positive correlation between the costs and effectiveness of EDTP. The first hypothesis is tested and proved positively.

5. 2.2 Let us discuss now our second hypothesis. By studying two institutions (SISI, Karnal and Patna) we found that the locality has some impact on the success rate of the EDTP. This impact on effectiveness is positive or negative? It depends on the locality i.e whether locality is developed or backward. In order to test these things we have taken SISI, Karnal, which is considered to be in a ^{developed locality} backward locality and SISI, Patna which is considered to be in a backward locality. We have compared their effectiveness in chapter IV. The results of such a comparison was that the EDTP of SISI, Karnal is more cost-effective than that in SISI, Patna. Although both the institutions are same in every aspects except locality. Thus, we may say that locality factor is responsible for the difference in effectiveness other things remaining the same.

5. 2.3 Intra-institutional Comparison

As mentioned earlier, the third hypothesis needs to examine the cost-effectiveness of different programmes conducted

by the same institutions. Chapter IV measured and compared the cost-effectiveness of different programmes of SEI, Karnal. This gives an intra-institutional comparison of EDTPs. Table 4.6 of chapter IV shows that, out of four programmes (women, weaker section engineer and educated unemployed) conducted by SEI Karnal during 1983-84 the women programme is most co-effective and engineering programme is least cost effective. One may conclude that women programme is more cost-effective than others.

We find that cost-effectiveness of EDTP differs depending on the types of persons trained under different programmes, other things remaining the same.

From these above discussion it appears all three hypotheses are proved.

5.3.0 Some Limitations of the Study

There are certain limitations of this study. The first weakness of the present study is that the items included to measure the costs of the programme is not sufficient. It is because the costs data as reported in chapter III does not include expenditure on all the items. But it is not sufficient. Hence costs data are neither adequate nor accurate.

Secondly, the method adopted to measure the effectiveness is not perfect. For a better study of effectiveness a close and first hand observation is needed which in turn requires a longer time. We had only limited time at our disposal. The time constraints did not permit us better observations and data collection.

5. Some Suggestions

In order to make this type of study more accurate the institutions require certain changes in the maintenance and reporting of their account.

First, the concerned institution should prepare and maintain a proper format of all costs (which we show in Appendix 'B' including both fixed and variables. It would be better for the institutions themselves, to judge the actual costs of their programme which they are conducting and going to conduct in future. It will be useful for others also i.e for further research study and for funding agencies and sponsoring body.

Second, a detail record of successful entrepreneurship should be maintained. So that, one can know the end result of its activities.

Third, no institutions, neither IDP nor sponsored organisation, have measured the cost-effectiveness of their activities. Institutions should measure the cost-effectiveness. This will help them to utilise their scarce resources optimally either by getting given output at the least costs or by getting the highest output from the given inputs (costs).

There is a need for reorganizing the programme with a view of ensuring that its benefits percolate to the persons for whom it is meant. One may mention that recently these institutions have started taking various steps for the improvement of IDP. Recently Feb 1986 there was a workshop of SISI, directors which was conducted by HERSHO where the directors

(GIST) some experts of HISSMO shared the strengths and weaknesses of their institutions regarding EDP. At the end of the workshop they prepared an Action Plan for the better implementation of the EDP in future. Though the result has not come out yet there is the possibility of future improvement of EDP.

Foot Notes

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Appendix 'A'

Cost Pattern of EDTF, Prepared by Central GovtTable A-1EDTF Among Women

Items	Expenses
1) Expenses on inaugural/valedictory functions, entertainment and hire charges etc	Rs 500.00
2) Course materials and other audio visual aids	Rs.1000.00
3) Inplant training/study visits including guiding/accompanying officers etc	Rs.1500.00
4) Honorarium/TA to guest speakers/experts	Rs 1000.00
5) Stipend (a) Rs.100/- per month per trainee	Rs.3000.00
6) Misc expenses on material demonstration transportation and display of products/processes	Rs.1000.00
Total	Rs8000.00

Source: (No.7 (47)/83-EDF, Government of India, Office of the Development Commissioner, (Small Scale Industries) Birla House, New Delhi.

Table A-2

EDP amongst Technicians/Foremen

<u>Items of expenses</u>		
1)	Expenses on inaugural/valedictory functions entertainment and hire charges etc	Rs. 500/-
2)	Course material and other audio visual aids	Rs. 1000/-
3)	Stipend (a) Rs. 100/- per month per trainee	Rs. 3000/-
4)	Misc expenses on materials, demonstration & display of products/processes, etc	Rs. 1000/-
		Rs. 5500/-

Sources: Same as for Table A1

Table A-3

EDP Amongst Physically Handicapped

<u>Items of expenses</u>		
1)	Expenses on inaugural/valedictory function entertainments and hire charges etc	Rs. 500/-
2)	Course- material and other audio-visual aids	Rs. 1000/-
3)	Stipend (a) Rs. 100/- p.m. for trainee	Rs. 3000/-
4)	Misc expenses on material, demonstra- tion & display of products/processes etc	Rs. 1000/-
		Rs. 5500/-

Sources: Same as for Table A.1

Table A-4EDP Amongst Weaker Section of the Community

Items of expenses		
1)	Stipend (a) Rs. 100/- pm per trainee	Rs. 2000/-
2)	Tech. training expenses in the units	Rs. 2000/-
3)	Misc expenses including inaugural/valedictory entertainment, hire charges, course materials, honorarium to guest speakers audio visual aids etc	Rs. 2000/-
		Rs. 6000/-

Sources: Same as for Table A-1

Table A-5EDP Amongst Rural Artisans

Items of expenses		
1)	Stipend of Rs. 250/- p.m per trainee	Rs. 10000
2)	Implant training/study visits including officers accompanying/guiding trainees	Rs. 4000
3)	Misc expenses including inaugural/valedictory functions, entertainments, hire charges, course materials, honorarium to guest speakers, audio-visual aids etc	Rs. 3000
		Rs. 17000

Sources: Same as for Table A-1

Table A-6EDF Amongst Students

Items of Expenses		
1)	Honorarium to guest speaker	Rs 1000/-
2)	Course materials	Rs 500/-
3)	TA including officers/accompanying/ guiding trainees	Rs 500/-
		Rs. 2000/-

Source: Same as for table A-1

Table A-7EDF Amongst Educated Unemployed

Items of Expenses		
1)	Expenses on inaugural/valedictory functions hire charges etc	Rs. 500/-
2)	Expenditure on training/study visits including guide accompanying officers etc	Rs. 1500/-
3)	Course material and other audio visual aids etc	Rs. 1000/-
4)	Honorarium/TA to guest speakers	Rs. 1000/-
5)	Stipend Rs. 100/- p.m. per trainee	Rs. 3000/-
6)	Misc expenditure on material, demonstra- tion, transportation, display of products/ processes etc	Rs. 1000/-
		Rs. 8000

Source: Same as for Table A-1

Table A-8Industrial Entrepreneurship for Engineers

Items of expenses		
1)	Expenses on inaugural/valedictory function entertainment and hire charges etc	Rs. 500/-
2)	Honorarium/TA to guest speakers/experts	Rs.4000/-
3)	Implant Training/Study visits including guiding/ accompanying officers etc	Rs.6000/-
4)	Course materials, lectures notes, discussions materials, manuals etc	Rs.2250/-
5)	Stipend Rs. 250/- p.m. per trainee	Rs18750/-
6)	Misc-expenses on materials for demonstration transportation and display of products/processes etc.	Rs. 1000/-
		Rs3 2500/-

Sources: Same as for Table A.1

Table A-9Industrial Entrepreneurship for Employed Engineers

Items of expenses		
1)	Expenses on inaugural/valedictory function entertainment and hire charges etc	Rs 500/-
2)	Honorarium/TA to guest speakers/experts	Rs1500/-
3)	Implant training/study visits (a) Rs 100/- per trainee	Rs3000/-
4)	Course Materials, lecture notes, discussion materials, manuals etc.	Rs2250
5)	Misc expenses on materials for demonstration, transportation and display of products/processes etc	Rs 250/-
		Rs7500/-

Sources: Same as for Table A-1

Table A-10Identification, Selection and Motivation of EntrepreneursIntensive Campaigns and Seminars

Items of Expenses	
1) Inaugural functions, entertainment and hire charges	Rs. 500.00
2) Preparation and publications of schemes publicity materials etc	Rs. 1000.00
3) Audio-visual aids, films slides etc	Rs. 500.00
4) Hire charges of Shamiana, furniture public address systems, accomodation, ectricity water and misc charges	Rs. 1000.00
5) TA/DA to experts, specialists and officers	Rs. 1000.00
6) Expenditure on transports and display of exhibits, products	Rs. 1000.00
Total	Rs. 5000.00

Sources: Same as for Table A-1

Table A-11

Categories and Number of participants and
Duration of EDTP

	Type of Programme	Duration	No of participants
1)	Women	One month	30
2)	Technicians/ foremen	one month	30
3)	Physically handi- -capped	One month	30
4)	Worker Section	One month	20
5)	Rural Artisans	Two months	20
6)	Students	One month	20
7)	Educated unemployed	one month	30
8)	Unemployed Engineers	Three months	25
9)	Employed Engineers	Three months (Part time)	25 to 30

Sources: Same as for Table A-1

Appendix 'B'Cost Incurred on Various Items and the Cost per Money
Head During 1983-84Table B1Money Spent on Different Items by SISI, Patna, for Rural
Artisans, 30 participants

Items	Amount	Per head
1) Expenses on inaugural/valdiatory functions, entertainment and hire charges etc	100.00	3.33
2) Implant training/study visits including guiding accompanying officers etc	1000.00	33.33
3) Course materials and other audiovisual aids		
4) Honorarium/TA to guest speaker/experts	300.00	10.00
5) Stipend Rs. 250/- p.m. per trainee	15000.00	500.00
6) Misc expenses on materials, demonstration transportation, and display of product/process etc	700.00	23.33
7) Advertisement cost		
8) Any other expenses		
9) Salaries and allowances of faculty members	11520.00	384.00
10) Salaries and allowances of non-faculty members and	24320.00	810.67
11) Building cost (rent basis)	7424.00	247.47
12) Library books and furniture charges	2360.00	78.67
	62724.00	2090.80

- Sources: 1) Survey conducted by the researcher
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Table B2Money Spent on Different Items by SISI, Patna for Women26 Participants

Items	Amount	Per head
1) Expenses on inaugural/valodictory functions, entertainment and hire charges etc	500.00	19.23
2) Inplant training/study visits including guiding accompanying officers etc	700.00	26.92
3) Course materials and other audio visual aids	1000.00	38.46
4) Honorarium/SA to guest speakers experts	300.00	11.54
5) Stipend Rs. 100/- p.m per trainee	2600.00	100.00
6) Misc expenses on material, demonstration, transportation and display of product/process etc	500.00	19.23
7) Advertisement cost	500.00	19.23
8) Any other expenses	115.20	4.35
9) Salaries and allowances of faculty members	5760.00	221.54
10) Salaries and allowances of non-faculty members	12160.00	467.70
11) Building cost (rent basis)	3712.00	142.77
12) Library books and furniture charges (rent basis)	1280.00	49.23
	29125.20	1120.20

Sources: Same as for Table B1

Table B-3Money Spent on Different Items by SISE, Patna
for Technicians and Foremen 25

Items	in Rs	
	Amount	Per head
1) Expenses on Mangural/valedictory functions, entertainment and hire charges etc	188.00	7.52
2) Inplant training/study visits including guiding accompanying officers etc		
3) Course materials and other audio visual aids	1000.00	40.00
4) Honorarium/TA to guest speaker experts	300.00	12.00
5) Stipend Rs. 100/- p.m. per trainee	2500.00	100.00
6) Misc expenses on material, demonstration, transportation and display of product/process etc	500.00	20.00
7) Advertisement cost		
8) Any other expenses	100.00	4.00
9) Salaries and allowances of faculty members	5760.00	230.40
10) Salaries and allowances of non-faculty members	12160.00	426.40
11) Building cost (rent basis)	3712.00	148.48
12) Library books and furniture charges (rent basis)	1280.00	51.20
	27500.00	1100.00

Sources: Same as for Table B-1

Table B-4

42

Money Spent on Different Items by SISI, Patna
for Weeker Section 25

Items	Amount	Per head
1) Expenses on Inaugural/valedictory functions, entertainment and hire charges etc	100.00	4.00
2) Inplant training/study visits including guiding accompanying officers etc	600.00	24.00
3) Course materials and other audiovisual aids	1000.00	40.00
4) Honorarium/TA to guest speaker experts	600.00	24.00
5) Stipend Rs.100/- p.m. per trainee	2500.00	100.00
6) Misc expenses on material, demonstration, transportation and display of product/process etc.	108.00	4.32
7) Advertisement cost	-	-
8) Any other expenses	-	-
9) Salaries and allowances of faculty members	5760.00	230.40
10) Salaries and allowances of non-faculty members	12160.00	486.40
11) Building costt (rent basis)	3712.00	148.48
12) Library books and furniture charges (rent basis)	1280.00	51.20
	27820.00	1112.80

Sources: Same as for table B-1.

Table C-1

Cost Incurred by BIRCO, Patna, during Science & Technology 30

Items	Amount	Per head
1) Advertisement and Publicity expenditure	930.00	31.00
2) Expenses on election of entrepreneurs	815.00	27.17
3) Inauguration expenses	575.00	19.17
4) Postage/Telegram/Telephones expenses	305.00	10.17
5) Cost of stationery and printing	250.00	8.33
6) Cost of course material	2600.00	86.67
7) Rent for hall		
8) Honorarium/TA paid to outside faculty members and inside faculty members	1800.00	60.00
9) Boarding and lodging expenses	1562 0.00	454.00
10) Follow-up expenses	920.00	306.67
11) Stipend payable to the trainee		
12) Study of district resources and district potential survey	2500.00	83.33
13) Travelling expenses on institutional staff	400.00	13.33
14) Lodging to guest	525.00	17.50
15) Boarding to guest	-	11.33
16) Travelling expenses to participants	340.00	
17) Local conveyance to staff	400.00	13.33
18) Hiring charges of furniture and utensils	3125.00	104.17

Table C-1 (contd)

Items	Amount	Per head
19) Typing and photostats at campus	150.00	5.00
20) Video film entertainment		
21) Medical expenses	*	26.67
22) Fuel for vehicle for transportation	800.00	*
23) Salary of institutional staff	18000.00	600.00
24) Salary of EDP supervisor	2000.00	66.67
25) Travelling expenses of EDP supervisor	400.00	13.33
26) Velodictory function	600.00	20.00
27) DA/TA to institution staff	2000.00	66.67
28) Wages to labourers	1065.00	33.50
	62400.00	2080.00

Sources: Survey conducted by the researcher.
 Cost of EDP in BIRGO, Patna file No.
 BIT/EDP/1983-84.
 Status Analysis of EDP Institutions
 in India, BIRSBUD, New Delhi.

Table C-2

Women 30

Items	Amount	Per head
1) Advertisement and publicity	850.00	28.33
2) Expenses on selection of entrepreneur	500.00	16.67
3) Inauguration expenses	700.00	23.33
4) Postage/Telegram/Telephone	300.00	10.00
5) Cost of stationery and printing	750.00	24.33
6) Cost of course material	3000.00	100.00
7) Rent for hall	2000.00	66.67
8) Honorarium/TA paid to outsider and insider faculty members	5045.00	168.17
9) Boarding and lodging for trainees		
10) Follow-up expenses	19500.00	650.00
11) Stipend payable		123.33
12) Study of district resources and district potential survey	3700.00	60.00
13) Travelling expenses on institution staff	1800.00	13.33
14) Lodging to guest	400.00	-
15) Boarding to guest	1000.00	33.33
16) Travelling expenses to participants	200.00	6.67
17) Local Conveyance to staff	400.00	13.33
18) Hiring charges to furniture and utensils	2450.00	81.67

Table C-2 (Contd)

(xv)

Items	Amount	Per head
19) Typing and photostate of census	450.00	15.00
20) Video-film	1000.00	33.33
21) Medical expenses		13.33
22) Fuel for vehicle for transportation	400.00	-
23) Salary of institution staff	18000.00	600.00
24) Salary of EDP supervisor	2000.00	66.67
25) Travelling expenses of EDP supervisor	1275.00	42.50
26) Voluntary function	2000.00	66.67
27) DA/TA to institution staff	1600.00	53.33
28) Wages to labourers	1200.00	40.00
	70500.00	2350.00

Sources: Same as for table C-1

Table C-3Tribal People 20

Items	Amount	Per head
1) Advertisement/publicity	900	45.00
2) Expenses on selection of centre	1000	50.00
3) Inauguration function	700	35.00
4) Postage/telegram/telephone	300	15.00
5) Cost of stationery and printing	550	27.50
6) Cost of course material	2500	125.00
7) Rent for hall	1000	50.00
8) Honorarium, F.A. paid to inside and outside faculty members	5000	150.00
9) Boarding and lodging per trainee	10400	520.00
10) Follow-up expenses	8000	400.00
11) Stipend payable
12) Study of district resources and district potential survey	2000	100.00
13) Travelling expenses on institutional staff	600	30.00
14) Lodging to guest	300	25.00
15) Boarding to guest	-	-
16) Travelling expenses to participants	-	-
17) Local conveyance to staff	300	15.00
18) Hiring charges of furniture and utensils	1000	50.00
19) Typing and Photostate at campus	-	-

Table C-3 (contd)

Items	Amount	Per head
20. Vedio film	150	7.50
21. Medical expenses	-	-
22. Fuel-coal, wood, kerosene	1200	60.00
23. Fuel for vehicle for transportation	800	40.00
24. Salary of institution staff	18000	900.00
25. Salary of EDP supervisor	2000	100.00
26. Travelling expenses of EDP supervisor	500	25.00
27. Valedictory expenses	900	45.00
28. DATA to institutional staff	1800	90.00
29. Wages to labourers	700	35.00
58800	2940.00	

Sources: Same as for Table C-1.

Table C-4Éducated Unemployed 35

Items	Amount	Per head
1) Advertisement/Publicity	800	22.86
2) Expenses on selection of entrepreneurs	900	25.71
3) Inauguration expenses	600	17.14
4) Postage/Telegram/Telephone	100	2.86
5) Cost of stationery and printing	500	14.29
6) Cost of Course material	2500	71.43
7) Rent for hall	1000	28.57
8) Honorarium, 2A paid to outside and inside faculty members	4000	114.29
9) Boarding and lodging for trainees	15240	435.43
10) Follow-up expenses	9300	265.71
11) Stypend payable		
12) Study of district resources and district potential survey	2500	71.43
13) Travelling expenses on institution staff	400	11.43
14) Lodging to guest	300	8.57
15) Boarding to guest		
16) Travelling expenses to participants	400	11.43
17) Local conveyance to staff	300	8.57
18) Hiring charges of furniture and utensils	1500	42.86

Table C-4 (contd)

Items	Amount	Per head
19) Typing and photostats at campus	200	5.71
20) Video film	-	-
21) Medical expenses	-	-
22) Fuel-coal, wood, kerosene	1000	28.57
23) Fuel for vehicles for transportation	500	14.29
24) Salary of institution staff	18000	514.29
25) Salary of EDP supervisor	2000	57.14
26) Travelling expenses of EDP	500	14.29
27) Valedictory function	1100	31.43
28) DR/TA to institutional staff	1000	28.57
29) Wages to labourers	700	20.00
	65240	1864

Sources: Same as for Table C-1

Table C-5
Worker Section 25

Items	Total cost in Rs	Per unit in Rs.
1) Advertisement/publicity	600	24.00
2) Expenses on selection of entrepreneurs	700	28.00
3) Inauguration expenses	500	20.00
4) Postage/Telegram/telephone	80	3.20
5) Cost of stationery and printing	550	22.00
6) Cost of course material	2500	100.00
7) Rent for hall	1000	40.00
8) Honorarium, T.A paid to outside and inside faculty members	4420	176.80
9) Boarding and lodging for trainee	12350	494.00
10) Follow-up expenses	8000	320.00
11) Stipend payable		
12) Study of district resources and district potential survey	1700	68.00
13) Travelling expenses on institution staff	300	12.00
14) Lodging to guest	100	4.00
15) Boarding to guest		
16) Travelling expenses to participants	200	8.00
17) Local conveyance to staff	300	12.00
18) Hiring charges of furniture & utensils	1500	52.00

Table C-5 (contd)

1	Items	Total Cost in Rs.	Per unit in Rs.
19)	Typing and photostats at campus	100.	4.00
20)	Vedio film		
21)	Medical expenses		
22)	Fuel, coal, Kerosene etc		
23)	Fuel for vehicle for transportation	500	12 .00
24)	Salary of institution staff	18000	720.00
25)	Salary of EDP supervisor	2000	80.00
26)	Travelling expenses of EDP supervisor	500	20.00
27)	Valedictory function	500	20.00
28)	TA/DA to institution staff	1300	52.00
29)	Wages to labourers	500	20.00
		58100	232 4.00

Source: Same as for Table 1

Appendix *D*

Table D-1

Money Spent on Different Items by SISI, Karnal for
Women Programme 82

Items	Price in Rs	
	Amount Spent	Per head
1) Expenses on Inaugural/valodictory functions, entertainment and hire charges etc	704.10	22.01
2) Inplant training/study visits including guiding accompany officers etc	2170.00	67.81
3) Course materials and other audio-visual aids	2000.10	62.51
4) Honorarium/TA to guest speaker/experts	1975.75	61.74
5) Stipend Rs.100/- p.m per trainee	3200.00	100.00
6) Misc. expenses on material, demonstration, transportation and display of products/process etc	2400.50	75.00
7) Advertisement cost	1800.00	56.25
8) Any other expenses	2000.00	62.50
9) Salaries and allowances of faculty members	4800.00	150.00
10) Salaries and allowances of non-faculty members	10153.34	316.67
11) Building cost (rent basis)	4000.00	125.00
12) Library books and furniture charges (rent basis)	1533.33	41.67
	365167.12	1141.16

- Sources: 1) Survey conducted by researcher
 2) EDP Annual Report, 1983-84, SISI, Karnal, Haryana
 3) EDP/Karnal/SISI/1983-84, DG.SSI, Ministry of Indus New Delhi.
 4) Status Analysis of EDP Institution in India, NIES New Delhi, 1985.

Table D-2

Money Spent on Different Items by SISI, Karnal for
Engineering programme 36

Items	Amount	Per head
1) Expenses on inaugural/validatory functions, entertainment and hire charges etc	100.00	2.78
2) Inplant training/study visits including guiding accompanying officers etc	1500.00	41.07
3) Course materials and other audiovisual aids	1000.00	27.78
4) Honorarium/TA to guest speaker/experts	300.00	8.33
5) Stipend Rs. 250/- p.m. per trainees	27000.00	750.00
6) Misc expenses on material, demonstration, transportation and display of products/process etc	200.00	5.56
7) Advertisement cost	-	-
8) Any other expenses	-	-
9) Salaries and allowances of faculty members	14400.00	400.00
10) Salaries and allowances of non-faculty members	30399.99	844.44
11) Building cost (rent basis)	12000.00	333.33
12) Library books and furniture charges (rent basis)	3999.99	111.11
	90899.98	2525.00

Sources: Same as for Table D-1

Table D-3

Money Spent on Different Items by SISI, Karnal for
Workshop Session 23 Participants.

Items	Amount	Per head
1) Expenses on inaugural/valedictory functions, entertainment and hire charges etc	507.50	22.06
2) Inplant training/study visits including guiding accompanying officers etc.	100.00	47.83
3) Course material and other audiovisual aids	1000.00	43.48
4) Honorarium/TA to guest speaker experts	800.00	34.75
5) Stipend Rs. 100/- p.m. per trainee	2500.00	100.00
6) Misc expenses on material, demonstration, transportation and display of product/process etc	60.00	2.61
7) Advertisement cost		
8) Any other expenses		
9) Salaries and allowances of faculty members	4800.00	208.70
10) Salaries and allowances of non-faculty members	10133.33	440.58
11) Building cost (rent basis)	4000.00	173.91
12) Library books and furniture charges (rent basis)	1333.33	57.97
	25034.16	1151.92

Sources: Same as for Table D-1

Table D-4Money Spent on Different Items by SIZL Karmel for
educated unemployed 22 participants

Items	Amount	Per head
1) Expenses on inaugural/velodictory functions, entertainment and hire charges etc	1904.15	57.70
2) Inplant training/study visits including guiding accompanying officers etc	2900.00	75.76
3) Course materials and other audio-visual aids	1720.75	52.14
4) Honorarium/TA to guest speaker/experts	1600.00	45.48
5) Stipend Rs. 100/ p.m. per trainee	5300.00	100.00
6) Misc expenses on material, demonstration, transportation and display of product/process etc	1950.00	59.09
7) Advertisement cost	600.00	16.18
8) Any other expenses	2900.00	87.88
9) Salaries and allowances of faculty members	4800.00	105.46
10) Salaries and allowances of non-faculty members	10133.53	207.08
11) Building cost (rent basis)	4000.00	121.22
12) Library books and furniture charges	1333.53	40.40
	36741.54	1115.38

Source: As same as for Table D.1