EC/EE/EI/CH 411

	IV/IV E	Tech DEGREE EXAMINATION	
OCTOBER	R, 2016	Common for ECE, EEE, E	IE & CH
Seventh Se	mester	Industrial Management And Entrepreneurship De	evelopmen
Time: Three H	ours	Maximur	n : 60 Mark
Inswer Questic	m No.1 compulsorily.	(1X12	= 12 Marks
	estion from each unit.		48 Marks)
Answer all qu			2=12 Marks
a	Principle	(IXI	2-12 Warks
ь	Company		
с	Selling		
d	Production control		
e	MRP		
f	Budgeting		
g	Management		
h	Human resource		
i	Motivation		
j	Entrepreneurship		
k	Product		
1	Analysis		
		UNIT – I	
2.a	Define the functions of Ma		6 M
2.b	Define Joint Stock Compa		6 M
		(OR)	
3.a		plain its merits and demerits.	6 M
3.b	Define the stages of Produc	UNIT – II	6 M
4.a	Define the types of Produc		6 M
4.b		Analysis and VED Analysis.	6 M
		(OR)	enere.
5.a	Define Working Capital a	nd explain its principles.	6 M
5.b	Manohar purchased machi	nery for his business at Rs 1,50,000 on 1/1/1990. Assumin	ng 6M
	method and life of the mac	6, calculate depreciation for 5 years under fixed installme	ent
	method and me of the mac	nine is to years.	
		UNIT – III	
6.a	Define Recruitment and ex		8 M
6.b	Explain the process of Sele	ction. (OR)	4 M
7.a	Define Performance Annra	isal and explain the methods of it.	
7.b	Define Leadership and exp		6 M
	and the second		6 M
		UNIT – IV	
		d explain the factors affecting Entrepreneurship.	6 M
8.b 1	Define Product Design and		6 M
	Define the concept Product	(OR)	
9.a L			4 M

IV/IV B.Tech Degree Examination (October 2016)

Solution and Scheme Evaluation for

INDUSTRIAL MANAGEMENT AND ENTREPREUNERSHIP DEVELOPMENT

(EC/EE/EI/CH 411)

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IMED SOLUTIONS

(Common for ECE, EEE, EI, CHEM)

1.

(1X12=12M)

a. Principle: a fundamental truth or proposition that serves as the foundation for a system of belief or behaviour or for a chain of reasoning.

b.Company: A Company is a legal entity made up of an association of persons, be they natural, legal, or a mixture of both, for carrying on a commercial or industrial enterprise. Company members share a common purpose and unite in order to focus their various talents and organize their collectively available skills or resources to achieve specific, declared goals.

c. Selling: Give or hand over (something) in exchange for money.

The last step in the chain of commerce where a buyer exchanges cash for a seller's good or service, or the activity of trying to bring this about.

d. Production Control: Production control is the task of predicting, planning and scheduling work, taking into account manpower, materials availability and other capacity restrictions, and cost so as to achieve proper quality and quantity at the time it is needed and then following up the schedule to see that the plan is carried out, using whatever systems have proven satisfactory for the purpose.

e.MRP: **Material requirements planning** (**MRP**) is a production planning, scheduling, and inventory control system used to manage manufacturing processes. Most MRP systems are software-based, but it is possible to conduct MRP by hand as well.

An MRP system is intended to simultaneously meet three objectives:

- Ensure materials are available for production and products are available for delivery to customers.
- Maintain the lowest possible material and product levels in store
- Plan manufacturing activities, delivery schedules and purchasing activities.

f. Budgeting: **Budgeting** is an important component of financial success. It's not difficult to implement, and it's not just for people with limited funds. **Budgeting** makes it easier for people with incomes and expenses of all sizes to make conscious decisions about how they'd prefer to allocate their money.

g. Management: **Management** (or **managing**) is the administration of an organization, whether it be a business, a not-for-profit organization, or government body. Management includes the

activities of setting the strategy of an organization and coordinating the efforts of its employees or volunteers to accomplish its objectives through the application of available resources, such as financial, natural, technological, and human resources. The term "management" may also refer to the people who manage an organization.

h. Human resource: **Human resources** are the people who make up the workforce of an organization, business sector, or economy. "Human capital" is sometimes used synonymously with "human resources", although human capital typically refers to a more narrow view (i.e., the knowledge the individuals embody and economic growth). Likewise, other terms sometimes used include "manpower", "talent", "labour", "personnel", or simply "people".

i. Motivation: **Motivation** is a theoretical construct used to explain behavior. It gives the reasons for people's actions, desires, and needs. Motivation can also be defined as one's direction to behavior, or what causes a person to want to repeat a behavior and vice versa. A motive is what prompts the person to act in a certain way, or at least develop an inclination for specific behavior. According to Maehr and Meyer, "Motivation is a word that is part of the popular culture as few other psychological concepts are.

j. Entrepreneurship: **Entrepreneurship** has traditionally been defined as the process of designing, launching and running a new business, which typically begins as a small business, such as a startup company, offering a product, process or service for sale or hire, and the people who do so are called '**entrepreneurs**'.

k. Product: An article or substance that is manufactured or refined for sale.

A thing or person that is the result of an action or process.

l.Analysis: **Analysis** is the process of breaking a complex topic or substance into smaller parts in order to gain a better understanding of it. The technique has been applied in the study of mathematics and logic, though *analysis* as a formal concept is a relatively recent development

Detailed examination of the elements or structure of something.

UNIT-I

2. a. Functions of Management:

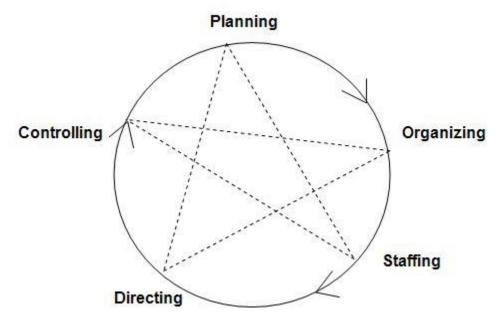
Management has been described as a social process involving responsibility for economical and effective planning & regulation of operation of an enterprise in the fulfillment of given purposes. It is a dynamic process consisting of various elements and activities. These activities are

different from operative functions like marketing, finance, purchase etc. Rather these activities are common to each and every manger irrespective of his level or status.

Different experts have classified functions of management. According to *George & Jerry*, "There are four fundamental functions of management i.e. planning, organizing, actuating and controlling".

According to Henry Fayol, "To manage is to forecast and plan, to organize, to command, & to control". Whereas Luther Gullick has given a keyword '**POSDCORB**' where P stands for Planning, O for Organizing, S for Staffing, D for Directing, Co for Co-ordination, R for reporting & B for Budgeting. But the most widely accepted are functions of management given by KOONTZ and O'DONNEL i.e.**Planning**, **Organizing**, **Staffing**, **Directing** and **Controlling**.

For theoretical purposes, it may be convenient to separate the function of management but practically these functions are overlapping in nature i.e. they are highly inseparable. Each function blends into the other & each affects the performance of others.



1. Planning

It is the basic function of management. It deals with chalking out a future course of action & deciding in advance the most appropriate course of actions for achievement of predetermined goals. According to KOONTZ, "Planning is deciding in advance - what to do, when to do & how to do. It bridges the gap from where we are & where we want to be". A plan is a future course of actions. It is an exercise in problem solving & decision making. Planning is determination of courses of action to achieve desired goals. Thus, planning is a systematic thinking about ways & means for accomplishment of predetermined goals. Planning is necessary to ensure proper utilization of human & non-human resources. It is all pervasive, it is an intellectual activity and it also helps in avoiding confusion, uncertainties, risks, wastages etc.

2. Organizing

It is the process of bringing together physical, financial and human resources and developing productive relationship amongst them for achievement of organizational goals. According to Henry Fayol, "To organize a business is to provide it with everything useful or its functioning i.e. raw material, tools, capital and personnel's". To organize a business involves determining & providing human and non-human resources to the organizational structure. Organizing as a process involves:

- Identification of activities.
- Classification of grouping of activities.
- Assignment of duties.
- Delegation of authority and creation of responsibility.
- Coordinating authority and responsibility relationships.

3. Staffing

It is the function of manning the organization structure and keeping it manned. Staffing has assumed greater importance in the recent years due to advancement of technology, increase in size of business, complexity of human behavior etc. The main purpose o staffing is to put right man on right job i.e. square pegs in square holes and round pegs in round holes. According to Kootz & O'Donell, "Managerial function of staffing involves manning the organization structure through proper and effective selection, appraisal & development of personnel to fill the roles designed un the structure". Staffing involves:

- Manpower Planning (estimating man power in terms of searching, choose the person and giving the right place).
- Recruitment, Selection & Placement.
- Training & Development.
- Remuneration.
- Performance Appraisal.
- Promotions & Transfer.

4. Directing

It is that part of managerial function which actuates the organizational methods to work efficiently for achievement of organizational purposes. It is considered life-spark of the enterprise which sets it in motion the action of people because planning, organizing and staffing are the mere preparations for doing the work. Direction is that inert-personnel aspect of management which deals directly with influencing, guiding, supervising, motivating sub-ordinate for the achievement of organizational goals. Direction has following elements:

- Supervision
- Motivation
- Leadership
- Communication

Supervision- implies overseeing the work of subordinates by their superiors. It is the act of watching & directing work & workers.

Motivation- means inspiring, stimulating or encouraging the sub-ordinates with zeal to work. Positive, negative, monetary, non-monetary incentives may be used for this purpose.

Leadership- may be defined as a process by which manager guides and influences the work of subordinates in desired direction.

Communications- is the process of passing information, experience, opinion etc from one person to another. It is a bridge of understanding.

5. Controlling

It implies measurement of accomplishment against the standards and correction of deviation if any to ensure achievement of organizational goals. The purpose of controlling is to ensure that everything occurs in conformities with the standards. An efficient system of control helps to predict deviations before they actually occur. According to *Theo Haimann*, "Controlling is the process of checking whether or not proper progress is being made towards the objectives and goals and acting if necessary, to correct any deviation". According to Koontz & O'Donell "Controlling is the measurement & correction of performance activities of subordinates in order to make sure that the enterprise objectives and plans desired to obtain them as being accomplished". Therefore controlling has following steps:

- a. Establishment of standard performance.
- b. Measurement of actual performance.
- c. Comparison of actual performance with the standards and finding out deviation if any.

(6M)

d. Corrective action.

2.b. Joint Stock Comapany:

A **joint-stock company** is a business entity where different stocks can be bought and owned by shareholders. Each shareholder owns company stock in proportion, evidenced by his or her shares (certificates of ownership). This allows for the unequal ownership of a business with some shareholders owning a bigger proportion of a company than others do. Shareholders are able to transfer their shares to others without any effects to the continued existence of the company

A Joint Stock Company is a voluntary association of persons to carry on the business. It is an association of persons who contribute money which is called capital for some common purpose. These persons are members of the company. The proportion of capital to which each member is entitled is his share and every member holding such share is called shareholders and the capital of the company is known as share capital. The Companies Act 1956 defines a joint stock company as an artificial person created by law, having separate legal entity from its owner with

perpetual succession and a common seal. Shareholders of Joint Stock Company have limited liability i.e liability limited by guarantee or shares. Shares of such company are easily transferable. From the above definition the following characteristics of a Joint Stock Company can be easily identified:

1. **Artificial Person :** A Joint Stock Company is an artificial person as it does not possess any physical attributes of a natural person and it is created by law. Thus it has a legal entity separate from its members.

2. **Separate legal Entity :** Being an artificial person a company has its own legal entity separate from its members. It can own assets or property, enter into contracts, sue or can be sued by anyone in the court of law. Its shareholders can not be held liable for any conduct of the company.

3. **Perpetual Existence :** A company once formed continues to exist as long as it is fulfilling all the conditions prescribed by the law. Its existence is not affected by the death, insolvency or retirement of its members.

4. **Limited liability of shareholders :** Shareholders of a joint stock company are only liable to the extent of shares they hold in a company not more than that. Their liability is limited by guarantee or shares held by them.

5. **Common Seal :** Being an artificial person a joint stock company cannot sign any documents thus this common seal is the company's representative while dealing with the outsiders. Any document having common seal and the signature of the officer is binding on the company.

6. **Transferability of Shares :** Members of a joint stock company are free to transfer their shares to anyone.

7. Capital : A joint stock company can raise large amount of capital by issuing its shares.

8. **Management :** A joint stock company has a democratic management which is managed by the elected representatives of shareholders, known as directors of the company.

9. **Membership :** To form a private limited company minimum number of members prescribed in the companies Act is 2 and the maximum number is 50. But in the case of public limited company the minimum limit is 7 and no limit on maximum number of members.

10. Formation : Generally a company is formed with the initiative of group of members who are also known as promoters but it comes into existence after completing all the formalities prescribed in Companies Act 1956.

(**OR**)

3.a. Advertising:

Advertising is an audio or visual form of marketing communication that employs an openly sponsored, non personal message to promote or sell a product, service or idea. Sponsors of advertising are often businesses who wish to promote their products or services. Advertising is differentiated from public relations in that an advertiser usually pays for and has control over the message. It is differentiated from personal selling in that the message is non personal, i.e., not directed to a particular individual. Advertising is communicated through various mass media, including old media such as newspapers, magazines, Television, Radio, outdoor advertising or direct mail; or new media such as search results, blogs, websites or text messages. The actual presentation of the message in a medium is referred to as an advertisement or "ad".

Merits

The major advantages of advertising are: (1) introduces a new product in the market, (2) expansion of the market, (3) increased sales, (4) fights competition, (5) enhances good-will, (6) educates the consumers, (7) elimination of middlemen, (8) better quality products, (9) supports the salesmanship, (10) more employment opportunities, (11) reduction in the prices of newspapers and magazines, (12) higher standard of living.

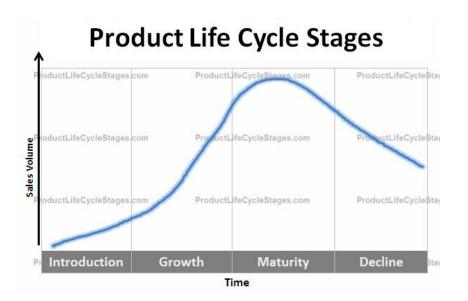
Demerits:

- (1) Adds to Costs
- (2) Undermines Social Values
- (3) Confuses the Buyers
- (4) Encourages Sale of Inferior Products
- (5) Some Advertisement is in Bad Taste

Explanation is required for each point.

3. b. Stages of Product life cycle

(6M)



As consumers, we buy millions of products every year. And just like us, these products have a life cycle. Older, long-established products eventually become less popular, while in contrast, the demand for new, more modern goods usually increases quite rapidly after they are launched.

Because most companies understand the different product life cycle stages, and that the products they sell all have a limited lifespan, the majority of them will invest heavily in new product development in order to make sure that their businesses continue to grow.

Product Life Cycle Stages Explained

The product life cycle has 4 very clearly defined stages, each with its own characteristics that mean different things for business that are trying to manage the life cycle of their particular products.

Introduction Stage – This stage of the cycle could be the most expensive for a company launching a new product. The size of the market for the product is small, which means sales are low, although they will be increasing. On the other hand, the cost of things like research and development, consumer testing, and the marketing needed to launch the product can be very high, especially if it's a competitive sector.

Growth Stage – The growth stage is typically characterized by a strong growth in sales and profits, and because the company can start to benefit from economies of scale in production, the profit margins, as well as the overall amount of profit, will increase. This makes it possible for businesses to invest more money in the promotional activity to maximize the potential of this growth stage.

Maturity Stage – During the maturity stage, the product is established and the aim for the manufacturer is now to maintain the market share they have built up. This is probably the most

competitive time for most products and businesses need to invest wisely in any marketing they undertake. They also need to consider any product modifications or improvements to the production process which might give them a competitive advantage.

Decline Stage – Eventually, the market for a product will start to shrink, and this is what's known as the decline stage. This shrinkage could be due to the market becoming saturated (i.e. all the customers who will buy the product have already purchased it), or because the consumers are switching to a different type of product. While this decline may be inevitable, it may still be possible for companies to make some profit by switching to less-expensive production methods and cheaper markets

Unit-II

4. a. Types of Production systems

A production manager will have to choose most appropriate method for his enterprise.

The final decision regarding any particular method of production is very much affected by the nature of the products and the quantity to be produced. Production methods may be broadly classified as Job Production, Batch production and Mass or Flow Production.

(i) Job Production:

Under this method peculiar, special or non-standardized products are produced in accordance with the orders received from the customers. As each product is non-standardized varying in size and nature, it requires separate job for production. The machines and equipment's are adjusted in such a manner so as to suit the requirements of a particular job.

Job production involves intermittent process as the work is carried as and when the order is received. It consists of bringing together of material, parts and components in order to assemble and commission a single piece of equipment or product.

Ship building, dam construction, bridge building, book printing are some of the examples of job production. Third method of plant layout viz., Stationery Material Layout is suitable for job production.

Characteristics:

The job production possesses the following characteristics

- 1. A large number of general purpose machines are required.
- 2. A large number of workers conversant with different jobs will have to be employed.
- 3. There can be some variations in production.
- 4. Some flexibility in financing is required because of variations in work load.
- 5. A large inventory of materials, parts and tools will be required.

6. The machines and equipment setting will have to be adjusted and readjusted to the manufacturing requirements.

7. The movement of materials through the process is intermittent.

Limitations:

Job production has the following limitations:

1. The economies of large scale production may not be attained because production is done in short-runs.

2. The demand is irregular for some products.

3. The use of labour and equipment may be an inefficient.

4. The scientific assessment of costs is difficult.

(ii) Batch production:

Batch production pertains to repetitive production. It refers to the production of goods, the quantity of which is known in advance. It is that form of production where identical products are produced in batches on the basis of demand of customers' or of expected demand for products.

This method is generally similar to job production except the quantity of production. Instead of making one single product as in case of job production, a batch or group of products are produced at one time. It should be remembered here that one batch of products may not resemble with the next batch.

Under batch system of production the work is divided into operations and one operation is done at a time. After completing the work on one operation it is passed on to the second operation and so on till the product is completed. Batch production can be explained with the help of an illustration. An enterprise wants to manufacture 20 electric motors.

The work will be divided into different operations. The first operation on all the motors will be completed in the first batch and then it will pass on to the next operation. The second group of operators will complete the second operation before the next and so on. Under job production the same operators will manufacture full machine and not one operation only.

Batch production can fetch the benefits of repetitive production to a large extent, if the batch is of a sufficient quantity. Thus batch production may be defined as the manufacture of a product in small or large batches or lots by series of operations, each operation being carried on the whole batch before any subsequent operation is operated. This method is generally adopted in case of biscuit and confectionery and motor manufacturing, medicines, tinned food and hardware's like nuts and bolts etc.

The batch production method possesses the following characteristics:

1. The work is of repetitive nature.

2. There is a functional layout of various manufacturing processes.

3. One operation is carried out on whole batch and then is passed on to the next operation and so on.

4. Same type of machines is arranged at one place.

5. It is generally chosen where trade is seasonal or there is a need to produce great variety of goods.

(iii) Mass or flow production:

This method involves a continuous production of standardized products on a large scale. Under this method, production remains continuous in anticipation of future demand. Standardization is the basis of mass production. Standardized products are produced under this method by using standardized materials and equipment. There is a continuous or uninterrupted flow of production obtained by arranging the machines in a proper sequence of operations. Process layout is best suited method for mass production units.

Flow production is the manufacture of a product by a series of operations, each article going on to a succeeding operation as soon as possible. The manufacturing process is broken into separate operations.

The product completed at one operation is automatically passed on to the next till its completion. There is no time gap between the work done at one process and the starting at the next. The flow of production is continuous and progressive.

Characteristics:

The mass or flow production possesses the following characteristics.

1. The units flow from one operation point to another throughout the whole process.

- 2. There will be one type of machine for each process.
- 3. The products, tools, materials and methods are standardised.
- 4. Production is done in anticipation of demand.
- 5. Production volume is usually high.
- 6. Machine set ups remain unchanged for a considerable long period.

7. Any fault in flow of production is immediately corrected otherwise it will stop the whole production process.

Suitability of flow/mass production:

1. There must be continuity in demand for the product.

2. The products, materials and equipments must be standardised because the flow of line is inflexible.

3. The operations should be well defined.

- 4. It should be possible to maintain certain quality standards.
- 5. It should be possible to find time taken at each operation so that flow of work is standardised.
- 6. The process of stages of production should be continuous.

Advantages of mass production:

A properly planned flow production method, results in the following advantages:

- 1. The product is standardised and any deviation in quality etc. is detected at the spot.
- 2. There will be accuracy in product design and quality.
- 3. It will help in reducing direct labour cost.

4. There will be no need of work-in-progress because products will automatically pass on from operation to operation.

5. Since flow of work is simplified there will be lesser need for control.

6. A weakness in any operation comes to the notice immediately.

7. There may not be any need of keeping work-in-progress, hence storage cost is reduced.

4. b. FSN and VED analysis:

(6M)

VED stands for vital, essential and desirable. This analysis relates to the classification of maintenance spare parts and denotes the essentiality of stocking spares.

The spares are split into three categories in order of importance. From the view-points of functional utility, the effects of non-availability at the time of requirement or the operation, process, production, plant or equipment and the urgency of replacement in case of breakdown.

Some spares are so important that their non-availability renders the equipment or a number of equipment in a process line completely inoperative, or even causes extreme damage to plant, equipment or human life.

On the other hand some spares are non-functional, serving relatively unimportant purposes and their replacement can be postponed or alternative methods of repair found. All these factors will have direct effects on the stocks of spares to be maintained.

Therefore, it is necessary to classify the spares in the following categories: V:

Vital items which render the equipment or the whole line operation in a process totally and immediately inoperative or unsafe; and if these items go out of stock or are not readily available, there is loss of production for the whole period.

Essential items which reduce the equipment's performance but do not render it inoperative or unsafe; non-availability of these items may result in temporary loss of production or dislocation of production work; replacement can be delayed without affecting the equipment's performance seriously; temporary repairs are sometimes possible.

D:

Desirable items which are mostly non-functional and do not affect the performance of the equipment.

As the common saying goes "Vital Few — trivial many", the number of vital spares in a plant or a particular equipment will only be a few while most of the spares will fall in 'the desirable and essential' category.

However, the decision regarding the stock of spares to be maintained will depend not only on how critical the spares are from the functional point of view (VED analysis) but also on the annual consumption (user) cost of spares (ABC — analysis) and, therefore, for control of spare parts both VED and ABC analyses are to be combined.

Here the items are classified into fast-moving (F), slow-moving (S) and Non-moving (N) items on the basis of quantity and rate of consumption. The non-moving items (usually, not consumed over a period of two years) are of great importance. It is found that many companies maintain huge stocks of non-moving items blocking quite a lot of capital.

Moreover, there are thousands of such items. Scrutiny of these items is made to determine whether they could be used or to be disposed off. The classification of fast and slow moving items helps in arrangement of stocks in stores and their distribution and handling methods.

(**OR**)

5. a. Working Capital:

The capital of a business which is used in its day-to-day trading operations, calculated as the current assets minus the current liabilities.

This **principle** is concerned with planning the total investment in current assets. According to this **principle**, the amount of **working capital** invested in each component should be adequately justified by a firm's equity position. Every rupee invested in the current assets should contribute to the net worth of the firm.

The financial manager must keep in mind the following **principles of working capital management**:

1. **Principle of Optimization:** The level of working capital must be so kept that the rate of return on investment is optimized. In other words, the working capital should be maintained at an optimum level. This is the point at which the increase in cost due to decline in working capital is equal to the increase in the gain associated with it. According to the principle of optimization, the magnitude of working capital should be such that each rupee invested adds to its net value. In other words capital should be invested in each component of working capital as long as the equity position of firm increases."

2. **Principle of Risk Variation:** This principle is based on the assumption that the rate of return on investment is linked with degree of risk in the business. Risk here refers to the inability of firm to maintain sufficient current assets to pay its obligations. If working capital is varied relative to sales, the amount of risk that a firm assumes is also varied and the opportunity for gain or loss is increased. In other words, there is a definite relationship between the degree of risk and the rate of return. As a firm assumes more risk, the opportunity for gain or loss increases. As the level of working capital relative to sales decreases, the degree of risk increases. When the degree of risk increases, the opportunity for gain and loss also increases. Thus, if the level of working capital goes up, amount of risk goes down, and vice-versa, the opportunity for gain is like-wise adversely affected.

3. **Principle of Cost of Capital:** Each source of working capital has different cost of capital. The degree of risk also differs from one source to another. The type of capital used to finance working capital directly affects the amount of risk that a firm assumes as well as the opportunity for gain or loss and cost of capital. A firm should raise capital in such a manner that a balance is maintained between risk and profit.

4. **Principle of Maturity of Payment:** This principle states that the working capital should be so raised from different sources that the firm is able to repay them on maturity out of its inflows of funds. Otherwise the firm would fail to repay on maturity and ultimately, it would find itself into liquidation though it is earning huge profits. This implies that the firm's ability to repay its short-term debts depends not on its earnings but on the flow of cash into it.

5. **Principle of Equity Position:** According to this principle, the amount of working capital invested in each component should be adequately justified by a firm's equity position. Every rupee invested in the working capital should contribute to the net worth of the firm.

5.b.

Given Data Initial cost, C=Rs 1, 50,000 Annual depreciation, D=10% Life of machine, N=10 Years Depreciation for 5 years under fixed installment method=? We know that, Under fixed installment method, Depreciation, D=(C-S)/N D= (1, 50,000)/10 Depreciation, D=15,000 Under fixed installment method, depreciation is same for all years. Hence, Year Depreciation (Rs)

1	<i>c</i>
	n
-	

15,000	
15,000	
75,000/-	
	-

UNIT-III

6. a. Recruitment:

15,000

15,000

15.000

 $\frac{1}{2}$

3

4 5 Total

Recruitment refers to the overall process of attracting, selecting and appointing suitable candidates for jobs (either permanent or temporary) within an organization. **Recruitment** can also refer to processes involved in choosing individuals for unpaid positions, such as voluntary roles or unpaid trainee roles.

Recruitment (hiring) is a core function of human resource management. Recruitment refers to the overall process of attracting, selecting and appointing suitable candidates for jobs (either permanent or temporary) within an organization. Recruitment can also refer to processes involved in choosing individuals for unpaid positions, such as voluntary roles or unpaid trainee roles. Managers, human resource generalists and recruitment specialists may be tasked with carrying out recruitment, but in some cases public-sector employment agencies, commercial recruitment agencies, or specialist search consultancies are used to undertake parts of the process. Internet-based technologies to support all aspects of recruitment have become widespread.

Whenever there is a vacancy in the organization, generally it is to be filled. To make the candidate available for filling those vacancies, their selection procedure and placement on a proper job comes under the purview of recruitment.

As soon as the available vacancies are known, they are advertised through different media and accordingly the applications are collected for the vacant posts. A group of candidates interested in doing the job and are eligible to do, it is created through recruitment.

It is an operative function of human resource management coming under the managerial function called organizing. In the words of Edwin Flippo, 'recruitment is the process of searching for prospective employees and stimulating them to apply for jobs in the organisation'.

In short, it involves attracting and obtaining as many applications as possible from eligible job seekers.

Sources of Recruitment:

The eligible and suitable candidates required for a particular job are available through various sources. These sources can be divided into two categories, as shown in Figure 5.5.

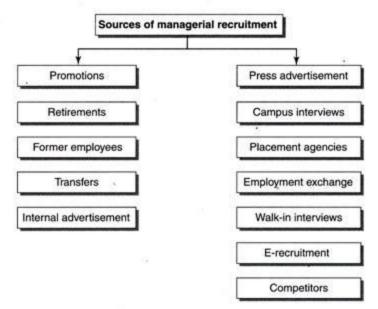


Fig. 5.5 Sources of Recruitment

Internal Sources of Recruitment: 1. Promotions:

The promotion policy is followed as a motivational technique for the employees who work hard and show good performance. Promotion results in enhancements in pay, position, responsibility and authority. The important requirement for implementation of the promotion policy is that the terms, conditions, rules and regulations should be well-defined.

2. Retirements:

The retired employees may be given the extension in their service in case of non-availability of suitable candidates for the post.

3. Former employees:

Former employees who had performed well during their tenure may be called back, and higher wages and incentives can be paid to them.

4. Transfer:

Employees may be transferred from one department to another wherever the post becomes vacant.

5. Internal advertisement:

The existing employees may be interested in taking up the vacant jobs. As they are working in the company since long time, they know about the specification and description of the vacant job. For their benefit, the advertisement within the company is circulated so that the employees will be intimated.

Benefits of Internal Sources of Recruitment:

- 1. The existing employees get motivated.
- 2. Cost is saved as there is no need to give advertisements about the vacancy.
- 3. It builds loyalty among employees towards the organization.
- 4. Training cost is saved as the employees already know about the nature of job to be performed.
- 5. It is a reliable and easy process.

Limitations of Internal Sources of Recruitment:

1. Young people with the knowledge of modem technology and innovative ideas do not get the chance.

2. The performance of the existing employees may not be as efficient as before.

- 3. It brings the morale down of employees who do not get promotion or selected.
- 4. It may leads to encouragement to favouritism.
- 5. It may not be always in the good interest of the organization.

External Sources of Recruitment:

1. Press advertisement:

A wide choice for selecting the appropriate candidate for the post is available through this source. It gives publicity to the vacant posts and the details about the job in the form of job description and job specification are made available to public in general.

2. Campus interviews:

It is the best possible method for companies to select students from various educational institutions. It is easy and economical. The company officials personally visit various institutes and select students eligible for a particular post through interviews. Students get a good opportunity to prove themselves and get selected for a good job.

3. Placement agencies:

A databank of candidates is sent to organizations for their selection purpose and agencies get commission in return.

4. Employment exchange:

People register themselves with government employment exchanges with their personal details. According to the needs and request of the organization, the candidates are sent for interviews.

5. Walk in interviews:

These interviews are declared by companies on the specific day and time and conducted for selection.

6. E-recruitment:

Various sites such as jobs.com, naukri.com, and monster.com are the available electronic sites on which candidates upload their resume and seek the jobs.

7. Competitors:

By offering better terms and conditions of service, the human resource managers try to get the employees working in the competitor's organization.

Benefits of External Sources of Recruitment:

1. New talents get the opportunity.

2. The best selection is possible as a large number of candidates apply for the job.

3. In case of unavailability of suitable candidates within the organization, it is better to select them from outside sources.

Limitations of External Sources of Recruitment:

1. Skilled and ambitious employees may switch the job more frequently.

2. It gives a sense of insecurity among the existing candidates.

3. It increases the cost as advertisement is to be given through press and training facilities to be provided for new candidates.

6. b. Process of selection:

The first step in the **selection process** is to review the information (resume, application form) provided by all job applicants to determine which applicants meet the minimum qualifications as stated in the job posting. No further consideration will be given to those who do not meet the minimum qualifications.

Finding the interested candidates who have submitted their profiles for a particular job is the process of recruitment, and choosing the best and most suitable candidates among them is the process of selection. It results in elimination of unsuitable candidates. It follows scientific techniques for the appropriate choice of a person for the job.

The recruitment process has a wide coverage as it collects the applications of interested candidates, whereas the selection process narrows down the scope and becomes specific when it selects the suitable candidates.

Stone defines, 'Selection is the process of differentiating between applicants in order to identify (and hire) those with a greater likelihood of success in a job'.

Steps Involved in Selection Procedure:

A scientific and logical selection procedure leads to scientific selection of candidates. The criterion finalized for selecting a candidate for a particular job varies from company to company.

Therefore, the selection procedure followed by different organizations, many times, becomes lengthy as it is a question of getting the most suitable candidates for which various tests are to be done and interviews to be taken. The procedure for selection should be systematic so that it does not leave any scope for confusions and doubts about the choice of the selected candidate (Figure 5.6).

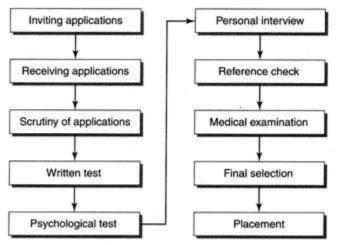


Fig. 5.6 Steps Involved in Selection Procedure

Brief details of the various steps in selection procedure are given as follows:

1. Inviting applications:

The prospective candidates from within the organization or outside the organization are called for applying for the post. Detailed job description and job specification are provided in the advertisement for the job. It attracts a large number of candidates from various areas.

2. Receiving applications:

Detailed applications are collected from the candidates which provide the necessary information about personal and professional details of a person. These applications facilitate analysis and comparison of the candidates.

3. Scrutiny of applications:

As the limit of the period within which the company is supposed to receive applications ends, the applications are sorted out. Incomplete applications get rejected; applicants with un-matching job specifications are also rejected.

4. Written tests:

As the final list of candidates becomes ready after the scrutiny of applications, the written test is conducted. This test is conducted for understanding the technical knowledge, attitude and interest of the candidates. This process is useful when the number of applicants is large.

Many times, a second chance is given to candidates to prove themselves by conducting another written test.

5. Psychological tests:

These tests are conducted individually and they help for finding out the individual quality and skill of a person. The types of psychological tests are aptitude test, intelligence test, synthetic test and personality test

6. Personal interview:

Candidates proving themselves successful through tests are interviewed personally. The interviewers may be individual or a panel. It generally involves officers from the top management.

The candidates are asked several questions about their experience on another job, their family background, their interests, etc. They are supposed to describe their expectations from the said job. Their strengths and weaknesses are identified and noted by the interviewers which help them to take the final decision of selection.

7. Reference check:

Generally, at least two references are asked for by the company from the candidate. Reference check is a type of crosscheck for the information provided by the candidate through their application form and during the interviews.

8. Medical examination:

Physical strength and fitness of a candidate is must before they takes up the job. In-spite of good performance in tests and interviews, candidates can be rejected on the basis of their ill health.

9. Final selection:

At this step, the candidate is given the appointment letter to join the organization on a particular date. The appointment letter specifies the post, title, salary and terms of employment. Generally, initial appointment is on probation and after specific time period it becomes permanent.

10. Placement:

This is a final step. A suitable job is allocated to the appointed candidate so that they can get the whole idea about the nature of the job. They can get adjusted to the job and perform well in future with all capacities and strengths.

7. a. Performance appraisal:

(**6M**)

A **performance appraisal** (PA), also referred to as a **performance** review, **performance** evaluation, (career) development discussion, or employee **appraisal** is a method by which the job **performance** of an employee is documented and evaluated.

- 1. Ranking
- 2. Paired Comparison
- 3. Forced Distribution
- 4. Confidential Report
- 5. Essay Evaluation
- 6. Critical Incident
- 7. Checklists
- 8. Graphic Rating Scale
- 9. BARS
- 10. Forced Choice Method
- 11. MBO
- 12. Field Review Technique
- 13. Performance Test

We will be discussing the important performance appraisal tools and techniques in detail.

1. Ranking Method

The ranking system requires the rater to rank his subordinates on overall performance. This consists in simply putting a man in a rank order. Under this method, the ranking of an employee in a work group is done against that of another employee. The relative position of each employee is tested in terms of his numerical rank. It may also be done by ranking a person on his job performance against another member of the competitive group.

Advantages of Ranking Method

- i. Employees are ranked according to their performance levels.
- ii. It is easier to rank the best and the worst employee.

Limitations of Ranking Method

- iii. The "whole man" is compared with another "whole man" in this method. In practice, it is very difficult to compare individuals possessing various individual traits.
- iv. This method speaks only of the position where an employee stands in his group. It does not test anything about how much better or how much worse an employee is when compared to another employee.
- v. When a large number of employees are working, ranking of individuals become a difficult issue.
- vi. There is no systematic procedure for ranking individuals in the organization. The ranking system does not eliminate the possibility of snap judgements.

2. Forced Distribution method

This is a ranking technique where raters are required to allocate a certain percentage of rates to certain categories (eg: superior, above average, average) or percentiles (eg: top 10 percent, bottom 20 percent etc). Both the number of categories and percentage of employees to be allotted to each category are a function of performance appraisal design and format. The workers of outstanding merit may be placed at top 10 percent of the scale, the rest may be placed as 20 % good, 40 % outstanding, 20 % fair and 10 % fair.

Advantages of Forced Distribution

- i. This method tends to eliminate raters bias
- ii. By forcing the distribution according to pre-determined percentages, the problem of making use of different raters with different scales is avoided.

Limitations of Forced Distribution

iii. The limitation of using this method in salary administration, however, is that it may lead low morale, low productivity and high absenteeism.

Employees who feel that they are productive, but find themselves in lower grade(than expected) feel frustrated and exhibit over a period of time reluctance to work.

3. Critical Incident techniques

Under this method, the manager prepares lists of statements of very effective and ineffective behaviour of an employee. These critical incidents or events represent the outstanding or poor behaviour of employees or the job. The manager maintains logs of each employee, whereby he periodically records critical incidents of the workers behaviour. At the end of the rating period, these recorded critical incidents are used in the evaluation of the worker's performance. Example of a good critical incident of a Customer Relations Officer is : March 12 - The Officer patiently attended to a customers complaint. He was very polite and prompt in attending the customers problem.

Advantages of Critical Incident techniques

- i. This method provides an objective basis for conducting a thorough discussion of an employees performance.
- ii. This method avoids recency bias (most recent incidents are too much emphasized)

Limitations of Critical Incident techniques

- iii. Negative incidents may be more noticeable than positive incidents.
- iv. The supervisors have a tendency to unload a series of complaints about the incidents during an annual performance review sessions.
- v. It results in very close supervision which may not be liked by an employee.
- vi. The recording of incidents may be a chore for the manager concerned, who may be too busy or may forget to do it.

4. Checklists and Weighted Checklists

In this system, a large number of statements that describe a specific job are given. Each statement has a weight or scale value attached to it. While rating an employee the supervisor checks all those statements that most closely describe the behaviour of the individual under assessment. The rating sheet is then scored by averaging the weights of all the statements checked by the rater. A checklist is constructed for each job by having persons who are quite familiar with the jobs. These statements are then categorized by the judges and weights are assigned to the statements in accordance with the value attached by the judges.

Advantages of Checklists and Weighted Checklists

i. Most frequently used method in evaluation of the employees performance.

Limitations of Checklists and Weighted Checklists

- ii. This method is very expensive and time consuming
- iii. Rater may be biased in distinguishing the positive and negative questions.

iv. It becomes difficult for the manager to assemble, analyze and weigh a number of statements about the employees characteristics, contributions and behaviours.

7. b. Leadership:

Leadership is both a research area and a practical skill encompassing the ability of an individual or organization to "lead" or guide other individuals, teams, or entire organizations. The literature debates various viewpoints: contrasting Eastern and Western approaches to leadership, and also (within the West) US vs. European approaches. US academic environments define leadership as "a process of social influence in which a person can enlist the aid and support of others in the accomplishment of a common task"

Different types of leadership styles exist in work environments. Advantages and disadvantages exist within each leadership style. The culture and goals of an organization determine which leadership style fits the firm best. Some companies offer several leadership styles within the organization, dependent upon the necessary tasks to complete and departmental needs.

1. Laissez-Faire

A laissez-faire leader lacks direct supervision of employees and fails to provide regular feedback to those under his supervision. Highly experienced and trained employees requiring little supervision fall under the laissez-faire leadership style. However, not all employees possess those characteristics. This leadership style hinders the production of employees needing supervision. The laissez-faire style produces no leadership or supervision efforts from managers, which can lead to poor production, lack of control and increasing costs.

2. Autocratic

The autocratic leadership style allows managers to make decisions alone without the input of others. Managers possess total authority and impose their will on employees. No one challenges the decisions of autocratic leaders. Countries such as Cuba and North Korea operate under the autocratic leadership style. This leadership style benefits employees who require close supervision. Creative employees who thrive in group functions detest this leadership style.

3. Participative

Often called the democratic leadership style, participative leadership values the input of team members and peers, but the responsibility of making the final decision rests with the participative leader. Participative leadership boosts employee morale because employees make contributions to the decision-making process. It causes them to feel as if their opinions matter. When a company needs to make changes within the organization, the participative leadership style helps employees accept changes easily because they play a role in the process. This style meets challenges when companies need to make a decision in a short period.

4. Transactional

Managers using the transactional leadership style receive certain tasks to perform and provide rewards or punishments to team members based on performance results. Managers and team members set predetermined goals together, and employees agree to follow the direction and leadership of the manager to accomplish those goals. The manager possesses power to review results and train or correct employees when team members fail to meet goals. Employees receive rewards, such as bonuses, when they accomplish goals.

5. Transformational

The transformational leadership style depends on high levels of communication from management to meet goals. Leaders motivate employees and enhance productivity and efficiency through communication and high visibility. This style of leadership requires the involvement of management to meet goals. Leaders focus on the big picture within an organization and delegate smaller tasks to the team to accomplish goals.

UNIT-IV

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8. a. Entrepreneurship:

Entrepreneurship has traditionally been defined as the process of designing, launching and running a new business, which typically begins as a small business, such as a startup company, offering a product, process or service for sale or hire, and the people who do so are called 'entrepreneurs'.

All the **factors** outside and inside the organization interact and **affect** the performance of the organization. **Entrepreneurship** is environmentally determined. The most essential for **entrepreneurial** growth is the presence of the favorable business environment.

Entrepreneurship is influenced by four distinct factors: economic development, culture, technological development and education. In areas where these factors are present, you can expect to see strong and consistent entrepreneurial growth.

These conditions may have both positive and negative influences on the emergence of entrepreneurship. Positive influences constitute facilitative and conducive conditions for the emergence of entrepreneurship, whereas negative influences create inhibiting milieu to the emergence of entrepreneurship.

Let us look at each one of them in details.

Economic Factors

Economic environment exercises the most direct and immediate influence on entrepreneurship. This is likely because people become entrepreneurs due to necessity when there are no other jobs or because of opportunity.

The economic factors that affect the growth of entrepreneurship are the following:

1. Capital

Capital is one of the most important factors of production for the establishment of an enterprise. Increase in capital investment in viable projects results in increase in profits which help in accelerating the process of capital formation. Entrepreneurship activity too gets a boost with the easy availability of funds for investment.

Availability of capital facilitates for the entrepreneur to bring together the land of one, machine of another and raw material of yet another to combine them to produce goods. Capital is therefore, regarded as lubricant to the process of production.

France and Russia exemplify how the lack of capital for industrial pursuits impeded the process of entrepreneurship and an adequate supply of capital promoted it.

2. Labor

Easy availability of right type of workers also effect entrepreneurship. The quality rather than quantity of labor influences the emergence and growth of entrepreneurship. The problem of labor immobility can be solved by providing infrastructural facilities including efficient transportation.

The quality rather quantity of labor is another factor which influences the emergence of entrepreneurship. Most less developed countries are labor rich nations owing to a dense and even

increasing population. But entrepreneurship is encouraged if there is a mobile and flexible labor force. And, the potential advantages of low-cost labor are regulated by the deleterious effects of labor immobility. The considerations of economic and emotional security inhibit labor mobility. Entrepreneurs, therefore, often find difficulty to secure sufficient labor.

3. Raw Materials

The necessity of raw materials hardly needs any emphasis for establishing any industrial activity and its influence in the emergence of entrepreneurship. In the absence of raw materials, neither any enterprise can be established nor can an entrepreneur be emerged

It is one of the basic ingredients required for production. Shortage of raw material can adversely affect entrepreneurial environment. Without adequate supply of raw materials no industry can function properly and emergence of entrepreneurship to is adversely affected.

In fact, the supply of raw materials is not influenced by themselves but becomes influential depending upon other opportunity conditions. The more favorable these conditions are, the more likely is the raw material to have its influence of entrepreneurial emergence.

4. Market

The role and importance of market and marketing is very important for the growth of entrepreneurship. In modern competitive world no entrepreneur can think of surviving in the absence of latest knowledge about market and various marketing techniques.

The fact remains that the potential of the market constitutes the major determinant of probable rewards from entrepreneurial function. Frankly speaking, if the proof of pudding lies in eating, the proof of all production lies in consumption, i.e., marketing.

The size and composition of market both influence entrepreneurship in their own ways. Practically, monopoly in a particular product in a market becomes more influential for entrepreneurship than a competitive market. However, the disadvantage of a competitive market can be cancelled to some extent by improvement in transportation system facilitating the movement of raw material and finished goods, and increasing the demand for producer goods.

5. Infrastructure

Expansion of entrepreneurship presupposes properly developed communication and transportation facilities. It not only helps to enlarge the market, but expand the horizons of business too. Take for instance, the establishment of post and telegraph system and construction of roads and highways in India. It helped considerable entrepreneurial activities which took place in the 1850s.

Apart from the above factors, institutions like trade/ business associations, business schools, libraries, etc. also make valuable contribution towards promoting and sustaining entrepreneurship' in the economy. You can gather all the information you want from these bodies. They also act as a forum for communication and joint action.

Social Factors

Social factors can go a long way in encouraging entrepreneurship. In fact it was the highly helpful society that made the industrial revolution a glorious success in Europe. Strongly affect the entrepreneurial behavior, which contribute to entrepreneurial growth. The social setting in which the people grow, shapes their basic beliefs, values and norms.

The main components of social environment are as follows:

1. Caste Factor

There are certain cultural practices and values in every society which influence the' actions of individuals. These practices and value have evolved over hundred of years. For instance, consider the caste system (the varna system) among the Hindus in India. It has divided the

population on the basis of caste into four division. The Brahmana (priest), the Kshatriya (warrior), the Vaishya (trade) and the Shudra (artisan): It has also defined limits to the social mobility of individuals.

By social mobility' we mean the freedom to move from one caste to another. The caste system does not permit an individual who is born a Shridra to move to a higher caste. Thus, commercial activities were the monopoly of the Vaishyas. Members of the three other Hindu Varnas did not become interested in trade and commence, even when India had extensive commercial interrelations with many foreign countries. Dominance of certain ethnical groups in entrepreneurship is a global phenomenon

2. Family Background

This factor includes size of family, type of family and economic status of family. In a study by Hadimani, it has been revealed that Zamindar family helped to gain access to political power and exhibit higher level of entrepreneurship.

Background of a family in manufacturing provided a source of industrial entrepreneurship. Occupational and social status of the family influenced mobility. There are certain circumstances where very few people would have to be venturesome. For example in a society where the joint family system is in vogue, those members of joint family who gain wealth by their hard work denied the opportunity to enjoy the fruits of their labor because they have to share their wealth with the other members of the family.

3. Education

Education enables one to understand the outside world and equips him with the basic knowledge and skills to deal with day-to-day problems. In any society, the system of education has a significant role to play in inculcating entrepreneurial values.

In India, the system of education prior to the 20th century was based on religion. In this rigid system, critical and questioning attitudes towards society were discouraged. The caste system and the resultant occupational structure were reinforced by such education. It promoted the idea that business is not a respectable occupation. Later, when the British came to our country, they introduced an education system, just to produce clerks and accountants for the East India Company, The base of such a system, as you can well see, is very anti-entrepreneurial.

Our educational methods have not changed much even today. The emphasis is till on preparing students for standard jobs, rather than marking them capable enough to stand on their feet.

4. Attitude of the Society

A related aspect to these is the attitude of the society towards entrepreneurship. Certain societies encourage innovations and novelties, and thus approve entrepreneurs' actions and rewards like profits. Certain others do not tolerate changes and in such circumstances, entrepreneurship cannot take root and grow. Similarly, some societies have an inherent dislike for any money-making activity. It is said, that in Russia, in the nineteenth century, the upper classes did not like entrepreneurs. For them, cultivating the land meant a good life. They believed that rand belongs to God and the produce of the land was nothing but god's blessing. Russian folk-tales, proverbs and songs during this period carried the message that making wealth through business was not right.

5. Cultural Value

Motives impel men to action. Entrepreneurial growth requires proper motives like profit-making, acquisition of prestige and attainment of social status. Ambitious and talented men would take risks and innovate if these motives are strong. The strength of these motives depends upon the culture of the society. If the culture is economically or monetarily oriented, entrepreneurship

would be applauded and praised; wealth accumulation as a way of life would be appreciated. In the less developed countries, people are not economically motivated. Monetary incentives have relatively less attraction. People have ample opportunities of attaining social distinction by noneconomic pursuits. Men with organizational abilities are, therefore, not dragged into business. They use their talents for non-economic end.

Psychological Factors

Many entrepreneurial theorists have propounded theories of entrepreneurship that concentrate especially upon psychological factors. These are as follows :

1. Need Achievement

The most important psychological theories of entrepreneurship was put forward in the early) 960s by David McClelland. According to McClelland 'need achievement' is social motive to excel that tends to characterise successful entrepreneurs, especially when reinforced by cultural factors. He found that certain kinds of people, especially those who became entrepreneurs, had this characteristic. Moreover, some societies tend to reproduce a larger percentage of people with high 'need achievement' than other societies. McClelland attributed this to sociological factors. Differences among societies and individuals accounted for 'need achievement' being greater in some societies and less in certain others.

The theory states that people with high need-achievement are distinctive in several ways. They like to take risks and these risks stimulate them to greater effort. The theory identifies the factors that produce such people. Initially McClelland attributed the role of parents, specially the mother, in mustering her son or daughter to be masterful and self-reliant. Later he put less emphasis on the parent-child relationship and gave more importance to social and cultural factors. He concluded that the 'need achievement' is conditioned more by social and cultural reinforcement rather than by parental influence and such related factors.

2. Withdrawal of Status Respect

There are several other researchers who have tried to understand the psychological roots of entrepreneurship. One such individual is Everett Hagen who stresses the-psychological consequences of social change. Hagen says, at some point many social groups experience a radical loss of status. Hagen attributed the withdrawal of status respect of a group to the genesis of entrepreneurship.

Hage believes that the initial condition leading to eventual entrepreneurial behavior is the loss of status by a group. He postulates that four types of events can produce status withdrawal:

i. The group may be displaced by force;

- ii. It may have its valued symbols denigrated;
- iii. It may drift into a situation of status inconsistency; and
- iv. It may not be accepted the expected status on migration in a new society.

3. Motives

Other psychological theories of entrepreneurship stress the motives or goals of the entrepreneur. Cole is of the opinion that besides wealth, entrepreneurs seek power, prestige, security and service to society. Stepanek points particularly to non-monetary aspects such as independence, persons' self-esteem, power and regard of the society.

On the same subject, Evans distinguishes motive by three kinds of entrepreneurs

- 1. Managing entrepreneurs whose chief motive is security.
- 2. Innovating entrepreneurs, who are interested only in excitement.
- 3. Controlling entrepreneurs, who above all otter motives, want power and authority.

Finally, Rostow has examined inter gradational changes in the families of entrepreneurs. He believes that the first generation seeks wealth, the second prestige and the third art and beauty.

4. Others

Thomas Begley and David P. Boyd studied in detail the psychological roots of entrepreneurship in the mid-1980s. They came to the conclusion that entrepreneurial attitudes based on psychological considerations have five dimensions:

- 1. First came 'need-achievement' as described by McClelland. In all studies of successful entrepreneurs a high achievement orientation is invariably present.
- 2. The second dimension that Begley and Boyd call 'locus of control' This means that the entrepreneur follows the idea that he can control his own life and is not influenced by factors like luck, fate and so on. Need-achievement logically implies that people can control their own lives and are not influenced by external forces.
- 3. The third dimension is the willingness to take risks. These two researchers have come to the conclusion that entrepreneurs who take moderate risks earn higher returns on their assets than those who take no risks at all or who take extravagant risks.
- 4. Tolerance is the next dimension of this study. Very few decisions are made with complete information. So all business executives must, have a certain amount of tolerance for ambiguity.
- 5. Finally, here is what psychologists call 'Type A' behavior. This is nothing but "a chronic, incessant struggle to achieve more and more in less and less of time" Entrepreneurs are characterize by the presence of 'Type A' behavior in all their endeavors.

8. b.

Product Design: **Product design** as a verb is to create a new **product** to be sold by a business to its customers. A very broad concept, it is essentially the efficient and effective generation and development of ideas through a process that leads to new **products**.

- Step 1: Product Concept
- Step 2: Research
- Step 3: Product design development
- Step 4: Research and development of the final design
- Step 5: CAD
- Step 6: CAM
- Step 7: Prototype Testing
- Step 8: Manufacturing
 - Explanation is required for each point.

(OR)

9. a. **Product analysis**

can take different forms but in general it means asking questions about a **product** and forming answers. It can mean experts analysing a **product** or members of the general public or potential

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customers/groups of people. **Product analysis** can take place at almost any stage of the design process.

Everyday we use thousands of different products, from telephones to bikes and drinks cans to washing machines. But have you ever thought about how they work or the way they are made?

Every product is designed in a particular way - *product analysis* enables us to understand the important **materials**, **processing**, **economic** and **aesthetic** decisions which are required before any product can be manufactured. An understanding of these decisions can help us in designing and making for ourselves.

The first task in product analysis is to become familiar with the product! What does it do? How does it do it? What does it look like? All these questions, and more, need to be asked before a product can be analysed. As well as considering the obvious mechanical (and possibly electrical) requirements, it is also important to consider the **ergonomics**, how the design has been made **user-friendly** and any**marketing** issues - these all have an impact on the later design decisions.

Let's take the example of a bike:

- What is the function of a bicycle?
- How does the function depend on the type of bike (e.g. racing, or about-town, or child's bike)?
- How is it made to be easily maintained?
- What should it cost?
- What should it look like (colours etc.)?
- How has it been made comfortable to ride?
- How do the mechanical bits work and interact?

If you do this exercise for various products, you will very quickly discover something interesting.

9. b.

Training: the action of teaching a person or animal a particular skill or type of behaviour.

Training is teaching, or developing in oneself or others, any skills and knowledge that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance. It forms the core of apprentices hips and provides the backbone of content at institutes of technology

While small and medium sized enterprises (SMEs) are acknowledged by researchers and policymakers alike as the major source of vitality in an economy, they are also found to be extremely vulnerable especially to the vagaries and turbulences of the external environment. It is therefore recognized by policy-makers in most countries that SMEs need special help for their survival and

growth. Traditionally such help was offered by way of facilitating the external environment. Such facilitation will be effective only if the SMEs have the internal capabilities for taking advantage of the external facilitation. This is why the experiments with external facilitation have not met with much success especially in developing countries, where SMEs are inherently weaker than their counterparts in developed countries. Strengthening the internal capabilities of SMEs therefore has become a top priority nowadays and is positioned as an alternative or supplementary strategy for SME development. Training is recognized as an important tool for developing the internal capabilities of SMEs. However, research in the Western countries has shown that even though trainers, consultants and policy-makers consider training as an important tool for SME development, the SMEs themselves do not feel so. It is against this background that we launched a survey in Bangalore (India) to assess the training needs of SMEs, as perceived by themselves. This study is especially relevant as there are no other similar studies undertaken in India so far. The survey was conducted among 300 randomly selected SME units in Bangalore. The survey questionnaire enquired about the perceived need for training and the preferences for the topics, duration, timings, costs, training providers, etc. The findings show that the trainingrelated attitudes and behaviour of SMEs are not very different from what is observed by the Western researchers. The overall finding of positive relationships of enterprise characteristics and the 'acquired' characteristics of entrepreneurs with the perception of training need suggests that training need perception is more a function of the developmental stage of the enterprise than the personal preferences of the entrepreneur.

Just over half of the SMEs interviewed discussed formal training approaches such as courses, with the majority of these SMEs being mature, small to medium enterprises, requiring technical and management skills. Courses are usually available through:

- Universities/colleges (some SMEs encourage their staff to undertake a Masters Degree).
- Private training firms.
- Industry organisations/institutes.
- Public bodies.
- Chambers of Commerce.
- Regional organisations. The benefits to the firm for staff undertaking formal training are:
- covers skills needs and gaps within the firm;
- accreditation, meeting standards and updates in regulation;

• provides effective and productive working environment – including organisational growth, improvements in labour productivity, higher turnover and profits;

• develops a common understanding and culture among staff;

• investment in the future, increases quality/quantity of research and development and innovation. Formal training benefits to the employee include:

- Increased knowledge and skills technical, managerial, social, communication and teamwork.
- Higher motivation and self-confidence and increased productivity.
- Qualifications and worker advancement.

• Increase in entrepreneurial behaviour. Only one firm, a medical company from Ankara region, Turkey, noted that formal training benefits the local area through strengthening the image of the industrial zone OSTIM as a region hosting successful businesses. Eighty per cent of the SMEs interviewed identified a number of formal training issues and/or concerns. These include micro, small, and medium SMEs; the majority were mature businesses, from all participating countries. This suggests that the mature firms, no matter what size, have developed the experience and knowledge over the years to assess the quality and value of formal training approaches that are available to SMEs. These issues and concerns could explain why only half of the SMEs interviewed utilised formal training approaches. The areas of concern are categorised into the following:

- Enterprise/company.
- Public bodies.
- Training providers/programmes.

• Universities/colleges. Enterprise/company issues and concerns -87.5% of those SMEs who identified issues and concerns recognised that these relate to their firm in three ways, which were:

• High cost/too expensive to provide training – associated with the costs of hiring external training providers and resources as a result of: universities that do not offer short courses and are more suited to larger companies; courses offered by public institutions are often too broad/basic, teachers lack the industrial experience, and colleges no longer conduct industrial workshops; and production loss due to the financial crisis.

• Impossible to interrupt production time/lack of time – due to company size, employees are constantly needed to maintain production and service, in order to allow an employee time off work to carry out training there is an increase in the pressure and workload of other employees or there is a reduction in product output.

• Too difficult to identify suitable training providers or lack of training providers/ programmes – although skills development activities are on offer, it is often difficult for SMEs to assess the quality of the available training programmes or, in some cases, there is a lack of awareness that training opportunities exist. On the other hand, some SMEs are highly specialised and in their cases there are a lack of training programmes available. Other company issues/concerns identified:

- Staff are recruited with the skills needed.
- Staff not willing to participate in training.
- Fear of company espionage.
- Lack of public funding.

• Risk of poaching after training. Specific circumstances illustrating these difficulties are provided through the following quotes from firms: The firm then looks at courses offered by private trainers such as Software Education, an Australasian firm with offices in Brisbane, Sydney and Wellington. Staff have participated in these courses, which has provided new skills, but the firms finds it an expensive option, especially if it is wanting a team of staff members to develop the skills or if the course involves travel toWellington or Sydney. A three-day course would cost about NZD 2 500 (including travel) plus the opportunity cost of releasing the staff members from work when the business has lots of work to do and deadlines to meet. It is harder for a smaller enterprise to take "time out" even if it would be worth it in the long-run.