CHAPTER 2

Human Factor

2.1 IMPORTANCE OF HUMAN FACTOR
2.2 HUMAN PSYCHOLOGY
2.3 MOTIVATIONAL FACTORS
2.1 Importance Of Human Factor

People form organisations because they have learnt that they can fulfil their needs more effectively in groups rather than as individuals. To be specific creating organisations helps people to divide their work and attain specialisation leading to enhanced proficiency. This, in turn, results in greater productivity, more than what individual effort alone can ever provide. Thus, an organisation is a means to achieve common goals more effectively.

An organisation is a system consisting of technical and human elements. The technical element is concerned with organising materials, machines and men to produce goods and services. The human element deals with securing the maximum productivity from human resources. This is possible only when an organisation has a reasonably satisfied and motivated human force.

Taking a macro view, human resources mean the knowledge, skill, creative abilities and talents prevalent in the population of a nation. Dealing with the micro aspect, human resources are meant to be inherent and acquired knowledge and skills reflected in the talent and aptitude of the employees.

Since human resources consist of people with distinct qualities and specific nature, managing human resources is the most complex task of any manager. When people work in groups to achieve organisational objectives, the individual differences are bound to create hindrances. These individual differences crop due to psychological variations among individuals. Every individual is unique by birth and subsequent
experiences make him even more different. The resolution of these conflicts requires the sciences of "Human Relations".

Davis\(^1\) is of the opinion that human relations are motivating people in organisational settings to develop team-work which accomplishes individual as well as organisational goals effectively. Human relations in industrial or business setting lays emphasis on people rather than on money, materials or machines. This approach implies that manager, by skillfully applying Human Relation Science should help release and guide the inner drives of human being who, if properly motivated, are capable of producing an output greater than the sum of their inputs. Unlike the formal organisation school which takes of organisations without people and the behaviorists who speak of people without organisations, Human Relations considers these two as one. This is because organisations must have people and people must have organisations, if they are to achieve their best goals.

The importance of human factor in an organisation and the economy as a whole can never be over-emphasised. Men, materials, machines and money are all important factors of production. But one thing which makes human factor stand out amongst these factors is the fact that it is the only dynamic factor of production which makes all these passive factors work for the achievement of organisational goals. Without human factor, no management can achieve organisational objectives. Human factor is the only resource, which can produce an output greater than the sum of inputs. No other factor of production can do that. This is the only factor which can think, conceive, grow and develop with the passage of time. Investments in all other factors of production like
machinery, material etc. get obsolete whereas human factor instead of getting obsolete with time, grows into more efficient factor of production as they learn and develop with education, training and practical experiences.

In the early part of the last century, F.W. Taylor began "Scientific Management" movement, which sought to systematize management practices, emphasizing standards and controls in work situations. But this approach ignored the significance of interpersonal behaviour in the workplace, which involves leadership, communication, group tasks and norms and group cohesiveness.

1920's stand out as a landmark in the stand of human behaviour at work. Elton Mayo and his colleagues conducted Hawthorne studies to demonstrate the positive correlation between productivity and worker participation in decisions influencing the worker and his work. The worker was no longer considered to be merely a factor of production; rather he was thought of as a human being with likes and dislikes, feelings, motivations and attitudes, all of which had an effect on his productivity.

The 1920's also the era of welfare management. During this period, employment departments, later called personnel departments were opened in factories to deal with the problems in employer-employee relations. Attempts were made to emphasize a professional approach to human problems in work settings. In 1930's, there was a lull because of the depression. However, the revival of the economy and the growth of the unionism, interest in workers' welfare got a renewal.

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Extensive studies were conducted by behavioural scientists. Gradually, the HR movement gained popularity.

Effective management of today's organisations and the human resources that make them either go or not to go is facing enormous challenges. Downsizing, reengineering, the knowledge and information explosion, global competition and TQM are not only some of the latest buzzwords, they are representative of the harsh reality facing managers now and in the future. There are many solutions being offered of how to deal with these complex challenges. Yet the simplest but most profound solution may be found in the words of Sam Walton, the founder of Wal-Mart and richest person in the world when he said that the answer to successful organisations and management lies in the quote “People are the key”.

In the past decade, managers were preoccupied with restructuring their organisations to improve productivity and meet the competitive challenges in the marketplace. Although the resultant lean and mean organisation offered some short-run benefits in the form of low costs and improved productivity, they won't be able to meet the challenges that lie ahead. In a recent survey of companies that had downsized over the past five years, about a half reported increased profits and a third reported increased productivity, but almost all (86 percent) said they had experienced greatly decreased morale. The emerging new workplaces, sometimes called knowledge organisations and the dramatically changing environment call for new understanding and new people-oriented solution.

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The real competitive advantages lies in quality of human resources, be it an organisation or the economy as a whole. Girzberg\(^3\), "The difference in the level of economic development of the countries is largely a reflection of the differences in quality of their human factor. The key element in this preposition is that values, attitude, general orientation and quality of people of a country determine its economic development". Small countries benefited of natural resources like Singapore, Hongkong, Japan etc. have been able to put themselves on a rapid development track whereas big countries rich in natural resources like India are still languishing way behind in terms of economic development. The real key lies in proper development and utilisation of its human resources. The countries which have made efforts to harness their human resources wealth properly have left other countries far behind in the race of economic development.

Jeffery Pfeffer\(^4\) explains that in the recent past, organisations have been downsized and total quality programme have been implemented, they now use information technology throughout the organisation and have an increasingly diverse workforce. However, even though people have often been sacrificed in these new organisational developments, it is also becoming clear that the only true, lasting competitive advantage comes through human resources and how they are managed.

Fred Luthans\(^5\) and others are of the view that "The fact of the matter is that human resources do make a difference. As successful real world organisations ranging from Chrysler to GE to Microsoft to the

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corner drugstore and the startup company have discovered, people may be the only sustainable advantage that an organisation has in our globalised, informationalised world. The people, their ideas, their productivity, their adaptability to change and their capacity to learn-at all levels of the organisation are the competitive advantage”.

Thus it becomes imperative to study human behaviour in detail to see the impact of psychological and motivational factors on developing and taking care of human factor. Studying human psychology becomes important for the purpose of this study because we have to analyse the forces which cause human behaviour in an organisation.

2.2 Human Psychology

Human behaviour is caused, motivated and goal-directed. This indicates that there are certain external stimuli which cause human behaviour whereas certain internal forces propel an individual to behave. If we try to analyse human psychology, the behavioural viewpoint provides us with the S-O-B model, which represents a causal sequence. Interaction takes place between the situation and the individual before behaviour results. This interaction is called perception and it forms a part of ‘O’ (organism) along with personality and psychological processes of learning and motivation.

We will now concentrate ourselves on ‘O’ part of human behaviour as it is here the processing takes place before the resultant behaviour becomes known to others. In physiological factors, an individual inherits a similarity to other individuals as well as uniqueness in the form of genes and chromosomes which is due to heredity factors. The growth of

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5 Don L. Bohl, Fred Luthans, John W. Slocum, Jr. And Richard M. Modgetts, "Ideas that will shape the future of Management Practice", Organisational Dynamics, Summer 1996, p.8
the individual is influenced by the functioning of the ductless glands, including the pituitary, the thyroid, the adrenals and the gonads. The S-O-B model is shown in diagram No. 2.1.
The nervous system plays a significant role in bringing about the integration of human behaviour and personality. Integration of human behaviour takes place because of the constant functioning of receptors, effectors and connectors. The numerous receptor cells attached to the individual’s sense organs convert physical and chemical events from the environment into neural events. The several factor cells attached to the muscles and glands convert these neural events into responses. The human behaviour ranges from the simple reflex action to complex problem-solving activity.

F.H. Sanford⁶ explains that sensation refers to the input about the physical world provided by the sensory receptors. The motivated individual senses the world, interprets and responds to it, and reacts to the results of his own responses. It will not be possible for him to accomplish his motives unless his senses allow an intimate touch with the environment in which he lives. The factors of sensation include a stimulus, a specialised receptor and the central nervous system.

When individuals are confronted with problems, their behaviour seems to have two features not visible in the behaviour of lower organisms:

(a) The capacity to react to external stimuli not physically present.
(b) A plan or strategy or insight in the search for solutions. As regards the first part, it has been found that implicit muscular movements, implicit speech as well as imagery are involved in thinking - most complex type of learning involving the perception of relationships. Research studies on concept formation have revealed that concepts are smoothly learnt if few
conflicting responses to single instances of concepts are involved; if single instances are familiar, if the series of instances incorporates one instance which forcefully gives rise to relevant response and if instances are positive instead of negative. Individual differences in linguistic habits cause differences in the ability to solve problems such as sorting and discrimination. The clear statement of a plan as well as the labeling of segments of a problem tends to facilitate solutions. The effective solution of problems necessitates knowledge. Here, a number of biases can creep into the process, hampering solution.

Individual behaviour is the result of a number of mental processes like motivation, perception and learning processes. Beliefs also play an important role in forming human behaviour. D. Krech and R.S. Cratchfield opined that belief is a term used in generic sense to include knowledge, opinions and faith. Beliefs inconsistent with facts are as strong as consistent with them. Beliefs provide continuity to the personality of an individual. They assign meaning to his day-to-day perceptions and activities and serve in his attempted solutions of varied goals. An individual’s beliefs also exert a vital impact on his motivation in two ways. First, he must believe that he is capable of performing the acts, which the organisation expects of him. If he does not believe that, effective performance is never possible and his motivation is bound to be low. Second, he must believe that performance of acts desired by the organisation will have positive outcomes for him personally. Unless he

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8 Sanford, F.H. Psychology – A scientific study of Man, Wordsworth Publishing company Inc., Belmont, California, H66 P.277.
7 Ibid, p.423
believes that some personal benefits will follow from performing effectively, he is less likely to be motivated.

Attitudes are also an important part of human psychology and are reflected in human behaviour. Attitude is a condition of readiness to be motivated. It indicates how an individual is likely to behave in a certain situation. Like beliefs, attitudes are acquired from parents, teachers and peer group members. There are mainly three types of attitudes so far as an organisational man is concerned: Job satisfaction, job involvement and organisational commitment. If all these attitudes are positive, the efficiency of human will be get enhanced manifold.

Various studies have been carried out to study the impact of attitudes on the efficiency of human factor in the economy. Chowdhry\textsuperscript{9} classified two textile mills as high-tension and low tension on the basis of employee attitude and found that the low tension mill was lower in absenteeism (9 percent) and turnover (10.5 percent) and higher in efficiency (77.5 percent) as compared to the high-tension mill, with 10.5 percent absenteeism, 32.8 percent turnover and 73.4 percent efficiency rating. In a Calcutta engineering factory, Ganguly\textsuperscript{10} launched an action research programme involving lectures and discussions, and attempted to reorient the attitude of 138 foundry workers. A comparison was made between the post-orientation attitudes towards the supervisor, the national government and the job vis-a-vis pre-orientation attitudes. The programme was found to be instrumental in effective a marked

\textsuperscript{9} Chowdhry, K., ‘An Analysis of the Attitudes of Textile workers and the Effect of those Attitudes on Working Efficiency, At TIRA, Research Notes, Human Relations Division, Ahmedabad, 1953,3, No. 6

\textsuperscript{10} L.Ganguly, T., ‘An Experimental study of Workers Morale and Productivity,’ Industrial Health in India, Series No. 77, All India Institute of Hygiene and Public Health, Calcutta, 1958, pp. 1-22
improvement in workers mental disposition and interpersonal relationship.

Another very important element of human psychology and resultant behaviour is learning. Human behaviour is a reflection of learning. Learning is a relatively enduring change in behaviour brought out as consequence of experience. Learning involves change which may be desirable or undesirable from an organisational viewpoint. This change is relatively permanent. Learning is all pervasive and without it civilised life cannot exist. In organisational settings, management attempts to design a learning element in jobs to sustain desired levels of skills among employees. Learning has a distinct effect on training in organisational settings. It assists mangers in optimally developing the talents and skills of an employee for effective performance. They can work as teachers to instruct the employees to engage in behaviour which will enable the organisation to accomplish its goals. Thus, they can check the growth of dysfunctional behaviour such as absenteeism, tardiness and indiscipline and foster the development of functional behaviours by giving feedback and rewards. There are varied theories of learning. Classical conditioning theory explains how neutral stimuli cause a response through their association with conditioned stimuli which gives rise to a response. Instrumental conditioning theory indicates how there is a learning of relationship between behaviours and the consequences they generate. Cognitive theories stress learning from connections and expectations while social learning theory relates to learning from the behaviour consequences of others. Thus it becomes amply clear that human psychology is a complex interplay of various factors. Due care should be taken of these factors for the growth and development of human factor to
attain the achievement of organisational as well as the goal of the economy are concerned.

2.3 **Motivational Factors**

There is enough literature to prove that human factor is a major cause for enhanced performance of an individual organisation as well as of the economy as a whole. Human factor is diverse in terms of age, gender, caste, skills, productivity etc. While first few factors are beyond the control of the organisation, performance can be attempted to be enhanced through some organisational interventions. Performance can be described as a function of skills & motivation \( P = f(s-m) \). Skills can be embedded through education & training. As regards the factor of motivation, it is a complex psychological phenomenon which warrants deep analysis.

Motivation is a force which directs the behaviour of an individual towards the achievement of goals. Motivation is a concept whose importance can be traced even during the "Mahabharat" days. When Arjuna refused to fight against his elders, Lord Krishna had to use motivation at techniques to inspire Arjuna\(^{11}\) for the War. Arjuna was motivated from inward to outward, the infinite fountain of motivation and the results of Mahabharat war are there before all of us. The motivation in ancient Sanskrit literature depends upon internal factors and not artificial inducement. Motivation is aimed at changing the mind set based on ethics, Dharma and morality so that we can create excellent human beings leading to permanent Human Resource Development. **Bhagvad**

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Gita\textsuperscript{12} presents an excellent example of motivation leading to Human Resource Development. In ancient Sanskrit literature, motivation is not dependent upon external factors but internal, i.e. self development (a real concept of HRD). When Lord Krishna incites Arjuna for war, the purpose is not to achieve the goal only but to achieve goal based on Dharma (righteousness). Thus the means of motivation are perfect and not transitory and are valid for all times to come. This is the permanent foundation of Human Resource Development. The means of motivation are permanent and once mastered would be self sustaining and self stimulant for Human Resource Development. Thus Bhagvad Gita suggests the following to motivate a person for Human Resource Development:

(a) Understanding the potentialities of the person-his Strengths & Weakness.
(b) Analysis of the problem affecting his mental attitude.
(c) Imparting knowledge based on fact to remove his weakness.
(d) Constant hammering the suggested knowledge in different styles.
(e) Assessment of the visible impact on his motivation and effort to keep it alive in the form of Human Resource Development.

Hodge and Johnson\textsuperscript{13} opine that motivation in organisation settings refers to the willingness of an individual to react to organisational requirements in the short run. The greater the magnitude of positive motivation of an individual towards the organisation, the more is the

likelihood that he will perform effectively in his position, even if it causes some amount of personal deprivation.

Motivation is a hypothetical process, the functioning of which is inferred from observations of the behaviour of the living system. B.J. Underwood\textsuperscript{14} defines that motivation is a hypothetical process inferred from certain changes in responses taking place as a consequence of certain changes in the stimulus conditions.

The process of motivation is explained in terms of various theories given by varied authors. Maslow’s\textsuperscript{15} hierarchical concept of human needs is the foundation of his theory.

\textbf{Diagram No. 2.2}

\textbf{Maslow ‘s Hierarchical Concept of Human Needs}

\begin{center}
\begin{tikzpicture}

\node [scale=0.8] at (0,0) {
\begin{tabular}{c}
\textbf{Physiological} \\
\textbf{Safety} \\
\textbf{Social} \\
\textbf{Esteem} \\
\textbf{Self-Actualisation}
\end{tabular}
} ;
\end{tikzpicture}
\end{center}

Once the lowest physiological needs are satisfied, they cease to be the motivators of human behaviour. Safety needs refer to the freedom from fear of external threats, protection and peace. Next levels of motivators belong to social needs which involve acceptance, group participation and desire for affectionate relationships among family

members and associates. After these needs are fulfilled, then arouses the wish of an individual for a high valuation of his personal worth. Finally, the self-actualisation need refers to the realisation of the individual's intrinsic potentials. This theory has limited applicability in developing countries like India where a considerable part of the population is not able to rise above the level of physiological needs.

Herzberg\textsuperscript{16} propounded the motivation-hygiene theory which incorporates two kinds of factors; intrinsic or motivators and extrinsic or hygiene factors. In situations where the extrinsic factors are not provided up to a minimum acceptable level, people become dissatisfied whereas provided beyond a minimum acceptable level, do not lead to motivation. However increases in intrinsic factors lead to satisfaction and they are called motivational actors. The absence of these factors does not result into dissatisfaction but if present these factors lead to strong motivation and high job satisfaction. However, various research studies carried out on this theory go against the generality of this theory. These studies show that satisfaction and dissatisfaction form two distinct and independent feelings and both categories of factors could cause satisfaction.

Vroom's motivational model\textsuperscript{17} asserts that an individual's motivation towards any activity at a point of time is ascertained by the anticipated values of all the outcomes including both positive and negative values of that activity, multiplied by the strength of his expectation that the activity will result in outcome pursued. The crucial point of this theory is that individual differences are built into the

\textsuperscript{16} Herberg, F.
prediction of motivated behaviour which helps in overcoming the problems of generality.

Porter and Lawler's model\textsuperscript{18} suggests that performance leads to satisfaction. It asserts that motivation is not equivalent to satisfaction or performance. Motivation, Satisfaction and performance form separate variables and involve a highly complex relationship. According to this multivariable model, efforts do not directly cause performance, but it is mediated by abilities and role perceptions. The reward systems following performance and the way they are perceived determine satisfaction.

The equity theory describes the equity comparison process in terms of an input-output ratio. Inputs are individual's contribution to the organisation whereas outcomes are what the person receives in return. A person's assessment of inputs and outcomes for both the self and others are based partly on objective data and partly on perceptions. Every individual compares his Output/Input ratio with that of others and if the two sides are not in balance, a feeling of inequity results. This inequity may result into acting as a motivator if an individual increases his input or as a demotivator if that individual starts reducing his inputs to maintain parity with outputs.

These different theories given by various authors have a particular bias towards American Culture as these theories have been evolved in the United States. Harpaz\textsuperscript{19} found that in a survey of seven countries,  

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the most important goal for an individual was 'Interesting Work' in United States, Israel, Britain and Belgium whereas in countries like Japan, Germany and Netherlands, it was ranked second or third most important goal. Thus the theories of motivation are culture specific and hence not universally applicable so focus should be on application rather than the concept.

Pareek has analysed work motivation at three levels i.e. at organisational level, job-role level and individual level. Thus different strategies are required for all the levels. At the organisational level efforts should be made to see that basic needs of the employee's i.e. good pay, security, working conditions etc. are fulfilled to avoid dissatisfaction. An open system of communication and teamwork feelings should be encouraged. At the same time, job design should be such that it affords scope for growth and development, offer challenges to the individual and some autonomy situations and freedom in decision making. Along with these measures, efforts should be made to raise the level of specific needs (e.g. achievement) in an individual to motivate him for hard work. This is possible only if hard work is associated with suitable rewards.

Various studies carried out in India have listed the important factors leading to motivated workforce. Ganguli\textsuperscript{20} lays down that the three most important motivating factors for Indian workers are adequate salary, job security and opportunity for promotion. This is quite different from the western countries. Among textile workers in Ahemdabad\textsuperscript{21} 'group norm' technique was employed to inform the workers about damages and work

\textsuperscript{20} Ganguli. H.C. Industrial Productivity and Motivation, Asia Publishing House, Bombay, 1961, p.29.
\textsuperscript{21} Chowdhry, K. and V.R. Trivedi, 'Group Normchart method as an incentive to increased production in the loomshed, Human Rel.Dn., Atira, Research notes, 1952, No.6, Ahmedabad.'
performed by them with the result that their performance improved and the rate of damages declined significantly. A study in Indian railways workshop\textsuperscript{22} highlighted the importance of three motivating factors among supervisors: adequate income, Job security and adequate value of his suggestions and recommendations regarding his own work group.

A survey of managers working in public sector organisation\textsuperscript{23} brought about the results that 'feeling of worthwhile accomplishment' was the most important factor contributing to job performance by managers. Recognition 'decision-making authority' and 'opportunity for personal growth' came next. 'Lack of consistency in management policies' was the most inhibiting factor in performance by managers. 'Lack of clear definition of responsibilities, 'inadequate communication', 'sloth and bureaucracy' in management 'inadequate communication' were the factors quite high in inhibiting performance by managers.

**V.K. Krishnamurthy**\textsuperscript{24} lays down that various Indian organisations have not been able to achieve higher level of productivity because of their failure to recognise and motivate human resources. It implies that productivity is predominantly a human phenomenon. Hence motivating environment is a must for productive workers.

Maruti Udyog Ltd. (MUL) has implemented Japanese HR Practices which implies that workers perceive work as a means of self expression and they relegate their individual goals to a downward scale vis-à-vis their organisational goals. Hence the management is free from close

\textsuperscript{22} Gangali, H.C., A Study on Supervision in Govt. Engg. Factory, IIT, Kharagpur, 1957 pp.23-25


\textsuperscript{24} Krishna murthy, V.K. 'The Work Ethos' in maruti udyog' Productivity. XXVI(2), 1985,pp.131-38
supervision and can spare more time for planning as task implementation is mainly delegated to the employees. This has been possible due to the fact that MUL has been able to build an environment of caring for every worker. Each and every individual matters in the organisation and the union is provided with all the relevant information which way effect them or the organisation. As a result, productivity has become a way of life for every worker and MUL has been professing by leaps and bounds.

Aruna Goel\textsuperscript{25} explains that motivation is not to provide temporary inducements to fulfill material needs but it is a great struggle to achieve highest goals of life i.e. spiritualism. Whereas in the case of worldly things and worldly relations you can never get any ultimate satisfaction, in the case of spirituality and spiritual life you can get that perfect satisfaction which is not dependent upon anything external. Motivation ultimately leads to good governance, which is the essence of economics, politics and everything in a country. The synthesis of all motivational theories enshrined in this Shloka. The holistic view of motivation is explained below in diagram no. 2.3.

Diagram No. 2.3
Holistic View of Motivation

- Motivation
  - Virtue and Truth lie with individual
    - Divine Spiritualism
      - Object World
        - Rennication of:
          - Physical and mental
          - Temptation
          - Fruits of work
          - Greed and fear
        - Leads to Realm of Freedom
          - Self Service
            - Human Consciousness
              - Does not depend on outside machinery of life
            - Common Good
              - Spiritualism (God Realisation)
                - Work with Dedication purity and without any self interest
              - Ethical and spiritual people
                - Society based on values and spirituality
                  - Ethical Society
                    - Highly motivated employees
                      - Good Governance with common Good
Which translated in English means that for Human Resource Development, we need men who are honest, true to the core of heart, men who will stand for their right even if they totter and the earth reeds, men who know their business and attend to it, men who will not lie to dodge, men who are not too lazy to work, men who are motivated through above mentioned qualities.