REVIEW OF LITERATURE

The present chapter reviews the literature, tracing the historical background of job design and its substantial development over the period of years.

In the past the development of job design was focused towards increasing the specialization and standardization of jobs. (Wren. D.A., 1979). Smith and Babbage (1832) have found a popular concept called "Division of labour" and it has been tested in pin production. Babbage attributed the dramatic increase in production to factors such as increased dexterity owing to practice, decreased time and the development of specialized equipment and machinery.

With the contribution from Smith and Babage the job specialization had reached its peak during the famous concept of scientific Management by Taylor in 1900's. Taylor argued that jobs should be scientifically studied, broken down into their smallest component tasks and then standardized across all workers doing the job (Taylor, 1911).

The division of labour by Babbage and Scientific Management by Taylor proved to be effective but the workers felt that extremely specialized jobs are boring, monotonous and less motivating, which in turn caused labour turnover.
For these reasons the practicing managers sought for job design alternations. In this context the study by Walker and Guest (1952) at Detroit automobile assembly plant, showed that the workers expressed satisfaction over pay, working conditions and quality of supervision. However, they expressed extreme dissatisfaction with the actual work they did. The researchers concluded that strict prescriptions of scientific management, might lead to efficiency but if carried too far; extreme levels of specialization would lead to negative consequences.

Walker and Guest (1952) found alternative approaches such as job rotation and job enlargement. In job rotation and job enlargement the workers will rotate their jobs and perform specialized tasks. But, it was found that the job rotation had not produced any positive effects on the employee (Griffin, 1982).

However, the job rotation has been found to be effective in On the Job Training (OJT) because workers rotated through a variety of related jobs, acquired a target set of job skills, but job rotation failed to motivate the employees.

Job enlargement has also been called as horizontal job loading, meaning that the workers job is expanded to tasks previously performed by other workers. Even though several companies used the job enlargement method, it failed to produce the desired results (Conant and Kilbridge, 1965).
The job enrichment concept came into picture, when job rotation and enlargement failed to produce desired effects.

Herzberg believed employees could be motivated by positive job related job experiences such as feelings of achievement, responsibility and recognition. In this respect, he advocated vertical job loading, giving the employee more control over the tasks.

Vertical job loading should enrich a job in six ways as stated by Herzberg (1968, 1974), i.e., accountability, achievement, feedback, work pace, control over resources and personal growth and development.

Ford (1973) conducted a study on the complaints of a particular company. Introducing the job enrichment concept he found that it produced the desired results like number of orders delivered on time increased from 27% to 90%, accuracy improved and turnover dropped significantly.

Weed (1971) conducted a study on job enrichment and confirmed that by introducing the concept the turnover decreased, cleanliness and cost savings were improved.

However, the job enrichment failed in some other companies and the theory faced some major objections. It was argued that the theory confuses
employee satisfaction with motivation. The methodological flaws, ignored situational factors in the theory were not convincingly supported by research (Griffin, 1982).

The criticisms of Herzberg's theory led to more complex and sophisticated views called Job Characteristics Approach. As explained in the introduction chapter this approach had its roots in the study of Turner and Lawrence (1965). They studied the relationship between workers satisfaction and attendance, based on existing literature and a priori conceptual framework. They studied six attributes namely variety, autonomy, required interaction, operational interaction, knowledge and skill required and responsibility. These six summary measures are called Requisite Tasks Attribute Index (RTA Index). Turner and Lawrence found that the relationship between job satisfaction and job complexity was positive among employees from rural backgrounds but negative among those employees from urban environments. This was interpreted as the outcome of contracting sub cultures, with employees from rural backgrounds adhering more closely to middle class values emphasizing work achievement and intrinsic aspects of jobs than did their more alienated urban counterparts.

Subsequent studies provided support for the proposition that rural and urban employees respond differently to job attributes (Blood and Hulin, 1967; Hulin and Blood, 1968; Wild, 1970) but not unequivocally (Shepard, 1970;
Susman, 1973). The importance of individual differences in their reactions to the job characteristics was felt from these findings. In this context, the interpretation from various research findings show that Higher Order Needs strength (HONS) as a better moderator than the measures of Protestant Ethic, in turn, it was more successful than the use of urban/rural difference (Jackson et al., 1981). The concept of Higher order Needs Strength is variously described as "Higher - Order Need Strength" (Hackman and Lawler, 1971; Brief and Aldag, 1975), Self Actualization Need Strength (Sims and szilagyi, 1976) or Growth Needs Strength (Hackman and Oldham 1976; Oldham et al., 1976; Umstot et al., 1976).

Thus, the importance of growth needs strength was found to be relevant and meaningful as moderator, when studying the relationship between two variables. Much debate was on, when some early investigations provided highly inconsistent findings in the relationship between employee performance and job satisfaction.

Hence, Katzell et al., (1961) concluded that "not much can be learned about the relationship between employee attitudes and performance from simple two-variable research designs”. However, other researchers felt the importance of determining the conditions under which two variables may be related. Several job related, situational factors (Cherington, Reitz and Scott, 1971; Ewen, 1973; Lawler and Porter, 1967; Porter and Lawler, 1968; Slomr, 1971; Triandis, 1959)
and individual difference variables (Doll and Gunderson, 1969; Inkson, 1978; Jacobs and Solomon, 1977; Korman, 1968; Landy, 1971; Steers, 1975) have been identified as possible moderators of the job performance job satisfaction relationship.

Jacob and Solomon (1977) have emphasized that "future research should be directed at the discovery of other personal and situational variables that would permit a better understanding of the intrinsic relationship between job satisfaction and job performance".

In this context several researchers found that the individual differences variables such as growth needs strength would play an important role between job satisfaction and job performance relationship (Abdel-Halim, 1980) work motivation and job satisfaction (Porter and Lawler, 1968;) and job characteristics and internal motivation (Hackman and Lawler, 1971; Hackman and Oldham, 1976; Oldham 1976).

Doll and Gunderson (1969), in examining the relationship between performance and satisfaction, predicted that in higher occupational groups (i.e. Scientists) growth needs strength components would be more predominant than at lower occupational level (i.e, enlisted men) and they found as predicted, the relationship between performance and satisfaction was more pronounced for the
high GNS group than for the low GNS group. It was also found the same with the study of Steers (1975).

The study conducted by Oldham (1976) on the relationship between the internal work motivation of employees and their job performance and moderating effect of individual growth needs strength, co-worker satisfaction and supervisory satisfaction on the relationship between several job characteristics and internal motivation, showed that positive, significant relationships between the measures of internal motivation and employees rated work quality, quantity and effort. In addition significant relationships between the job characteristics and internal motivation were obtained for the employees who were desirous of growth satisfactions and who experienced high satisfaction with their supervisors and co-workers.

Various researches have demonstrated that individuals desirous of growth satisfactions in their work respond positively to jobs high on the five characteristics (Hackman and Lawler, 1971; Wanous 1974; Hackman and Oldham, 1974b). The results of these studies confirmed as predicted that individuals desirous of growth satisfactions will experience high internal work motivation on jobs high on the five job characteristics (quoted in Oldham, 1976).

Evans et. al., (1979) conducted a study for including the expectancy theory of Vroom, in extending the job characteristics model, using data from supervisors
and managers. The individual moderating effect of growth needs strength and need for achievement (nAch) were also investigated. The moderating effects of GNS was found to have statistically significant relationship.

Lohar and Noe (1985) studied the job characteristics job satisfaction relationship using meta-analysis. The role of growth needs strength as a possible moderator was also investigated. The results indicated a moderate relationship between the two variables which was stronger for employees with high growth need strength. Situational characteristics appeared to be more important in determining satisfaction for employees low in growth need strength.

Glick, Jenkins and Gupta (1986) found, after comparing five alternative models, that even though method variance an influence the magnitude of obtained relationships, "job characteristics and outcomes are related to each other independent of method effects.

In testing the hypothesis that whether objective changes in job characteristics changing the perception of characteristics, by incumbents, Terborg and Davis (1982) and Farr (1976) reported that the manipulation of job characteristics (i.e., using the JDS) proved significant changes in the perceived level of most of the core job dimensions (except task significance) in the hypothesized direction (cited in, Fried and Ferris, 1987, p.295).
The meta-analysis carried out by McEnvoy and Cascio (1985) on the effects of realistic job previews versus job enrichment indicated that job enrichment interventions have modest but meaningful effects on turnover and that they were about twice as effective at reducing turnover as realists job previews.

Kemp and Cook (1983) examined job longevity and growth needs strength as moderators of the job complexity - job satisfaction relationship. The results showed that the job longevity was not a significant moderator of the job complexity - job satisfaction relationship. Similarly, the direct moderator effect of growth needs strength did not replicate across studies. A consistent finding was obtained however, suggesting that growth needs strength moderates the job complexity and job satisfaction relationship only for employees with short job tenure. It was concluded that specifying the conditions within which moderators were important, rather than expecting consistent individual differences across all circumstances, may yet have important implications for both organizational theory and practice.

It was quoted in the study of Fried and Ferris (1987) in examining the various studies on moderating effect of GNS between MPS and performance relationship, that the relationship of MPS with performance appeared to be stronger among people with high GNS than among the people with low GNS (p.308).
Abdel-Halim (1980) examined the moderating effects of employee higher order need strength (HONS) on the relationship between job performance and job satisfaction. Results provided support for the moderating role of higher order needs strength. Specifically, job performance was positively related to intrinsic as well as extrinsic sources of job satisfaction for strong higher order needs strength individuals, while no such relation was found for individuals with weak higher order needs strength.

Jackson, Paul and Wall (1981) designed a study to avoid the two major deficiencies found in the previous empirical research on the job characteristics model. The deficiencies were (a) the measurement of the moderator has not been sufficiently independent of the measurement of the other variables in question, thus allowing response consistency to account for the results; and (b) analytical procedures have been employed which are severely restricted in their scope. The results showed that the Higher Order Needs Strength moderates the relationship between job characteristics and job satisfaction.

Green et al., (1986) reviewed the literature on job characteristics model and the moderating effect of growth needs strength. They revealed the preponderance of the appropriate cross sectional survey and few appropriate experimental tests in the field on the growth needs strength moderator hypothesis. Next an incremental model of growth opportunity was counteracted with that of
general level of motivating potential. Based on this, they proposed, by manipulating the growth opportunities (incremental) being offered to employees in an experimental design to test GNS as a moderator in a theory of motivation. Growth opportunities were manipulated by vertical collaboration based on the leader member exchange (LMX) model. The results showed that statistically significant interaction between growth needs strength and growth opportunity. It was found, only high growth needs strength employees responded to the growth opportunities at 55% increase in quantity produced but not at the expense of quality. The number of errors per week also decreased for the high GNS group.

Fried and Ferris (1987) reviewed 200 relevant articles on the job characteristics model. They also applied meta-analytic procedures to a large portion of data. They have concluded that the job characteristics model needed correlational dimensions. The corrected correlational results of the meta-analysis indicated that job characteristics resulted both in psychological and behavioral outcomes. Concerning psychological states, the results tended to support their mediating role between job characteristics and personal outcomes. Their results provided partial support for the role of Growth Needs Strength as a moderator between job characteristics and outcomes. They also suggested further analysis on environment and job content factors.
However, the job characteristics theory did not go unchallenged. Many researchers were critical about the objective measurement of the job characteristics and alternative measurement were suggested (Roberts and Glick, 1981).

Spector and Jex (1991) conducted a study for an alternative approach to study the job characteristics in a more objective way. They used three independent sources to collect data on job characteristics (i) incumbents, (ii) rating from job descriptions and (iii) the dictionary of occupational titles. They warned about the use of incumbent self report of job characteristics as indicators of actual work environments, though the incumbent reports on job characteristics correlated significantly with several employee outcomes such as job satisfaction, work frustration, anxiety on the job, turn over intentions and number of doctor visits. Still they suggested new methods of studying the job characteristics.

Hackman and Oldham (1975) developed Job Diagnostic Survey (JDS) an instrument to measure the characteristics of jobs. They developed this instrument in view of diagnosing the jobs prior to job redesign and for evaluating the jobs after redesigning. In most of the research that tested the job characteristics they used Job Diagnostic Survey (JDS).

JDS measured the workers perceptions of the job characteristics, their satisfaction, and internal motivation.
Much of the research regarding the JDS focused on the dimensionality characteristics measures (Quote, Kulick, Oldham and Langner 1988). Although few studies have confirmed the five hypothesized dimensions (Katz, 1978; Lee and Klein, 1982) most of the results were inconsistent with the a priori five factor structure (Dunham, 1976; Pierce and Dunham, 1978).

Idaszak and Drasgow (1987) conducted factor analysis of two samples of employees. Results revealed six factor solutions for both samples - five factor's corresponding to the hypothesized factor structure and sixth representing the negatively worded, reversed scored items.

Bimbaum, Farr and Wong (1986) studied the job characteristics model in Hong Kong, from the data base of job incumbents self reports on the Job Diagnostic Survey (JDS) and supervisory ratings on the Job Rating Form (JRF) together with job incumbent work satisfaction measured on the Job Diagnostic Inventory (JDI). When, Convergent and discriminent validities of the job diagnostic survey and the job rating form were examined by using confirmatory analysis, the results showed that although the five trait model suggested by job characteristics model did not fit the data, a modified four-trait model fitted. Also further analysis indicated that the supervisory ratings of job characteristics had greater trait variance and less method variance than the ratings provided by the job incumbents. The correlational analysis revealed that the within-person
correlations between incumbents task descriptions and work satisfaction as measured by the job diagnostic survey; and job diagnostic inventory work scales might be inflated by the common source of variance and the confounding of items in the two scales. In the final comment, the researchers sought for further replication on the same theme, whether the findings reported could be generalized to a variety of cultural settings.

Harvey, Billings and Nilan (1985) used confirmatory factor analysis to evaluate the factor structures suggested in the past research. Their results suggested that the best fitting solution included the a priori five dimensions plus one or two method factors (factors for the reverse scored items and the three anchor scale items).

To answer these criticism Idaszak and Drasgow (1987) revised the JDS by rewriting the reverse scored job characteristics items. The results conformed very closely to the a priori five dimension structure. As a result, Idaszak and Drasgow suggested that a new scales should be used in future research concerned with job characteristics.

However two limitations of this research were pointed out by Kulick and Oldham (1988) while suggesting that the recommendations of Idaszak and Drasgow might be premature. The first limitation of the Idaszak and Drasgow (1987) study was that it did not involve a comparison of the original JDS with its
revised counterpart within the same sample. Second, it was unknown what impact the JDS revisions might have on the criterion-related validity of the JDS. If the JDS revisions resulted in purer measures of job characteristics, there should be stronger associations between the revised measure and the personal and organizational outcomes than between the original measures and the outcomes.

Thus, the study by Kulick, Oldham and Langner (1988) suggested that the same original versions of JDS should be used until items could be developed to improve the JDS factor structure and the effectiveness of job characteristics in predicting personal and organizational outcomes.

CAREER MANAGEMENT

Career is defined as the pattern of work-related experiences that span the course of a person’s life. In this definition the work related experiences broadly includes, series of job positions, job duties or activities and work related decisions and subjective interpretations of work related events such as work aspirations, values, needs and feelings about particular work experiences (Greenhaus, 1987).

Traditionally it was felt that only doctors, lawyers and engineers are thought to have careers, whereas clerks and machinists are not (Hall, 1976). But the advancement of educational system provided various opportunities to the individuals to consider any profession as a career. Once the individual completes...
a course from a school or University, who tries to find a job and enters into a career. After that, for example, a 25 year old trainee is likely to be preoccupied with gaining competence, acceptance and credibility as a young manager in his/her early career. The same person at mid-career (age 45) might be wrestling with gnawing self-doubts about the sacrifices his/her career has required. At the age of 55 or 60 that person might be faced with the task of remaining productive in later career years.

Career could be managed by an individual in several ways, i.e., by changing the objective environment (e.g., switching jobs) or by modifying one's subjective perception of a situation (e.g., changing expectations). Hence, career management is viewed as a process by which individuals develop, implement and monitor goals and strategies (Gutterridge and Otte, 1983). However, career development is considered as an ongoing process by which individuals progress through a series of stages, each of which is characterized by relatively unique set of issues, themes or tasks (quoted in, Greenhaus, 1987).

The Career development researches concentrated on individuals' growth in the organization as well in his/her personal life, for example, one's advancement in position, status and money (Hall, 1976).

Most of the career researches are considered the life stages and career stages as an important variables, hence most of the researches were centered
around the age of the individual and his career stages (for example, Levinson, Hall). The research on adulthood and careers, indicates that people progress through relatively predictable phases or stages in their careers (Hall; 1976, Levinson D., Darrow, Klein, Levinson and McKee; 1978, Schein; 1978, Super, 1957). In other way it could be interpreted that careers unfold or develop in a relatively predictable fashion.

The present research considers the career management of technical professionals within the organization. It is in the interest of the organization to help employees plan and manage their careers. Career planning workshops, job posting, supportive performance appraisal systems, career counselling and job redesign are but few of the career related programs that organizations have used to facilitate effective career management.

To enhance the performance and development of its employees, an organization should understand the critical tasks faced by people in different stages of their careers (Levinson H., 1969).

Moreover to ensure a steady movement of human resources to key positions, as an organization needs to understand the basis of upon which employees make their career decisions. The promotion, retirement, transfer or termination of key people at the top of an organization sets forth a chain of
mobility opportunities down the line since each vacancy filled from within creates other vacancies in the organization (Rosenbaum, 1979).

But, what happens in the present organizational scenario is that, most of the organizations are going for downsizing their hierarchy levels and even making the organization flat. In such situations the number of promotions and upward mobility becomes limited, in an organization.

To avoid this situation, Dalton, Thompson and Price (1977) defined careers stages on the basis of work activities, relationships and psychological issues rather than on the basis of age.

They started research with a question of why some professional remained high performers over the years while others are not? What they have done differently? They have concluded that the problem lies in the career models used in the organizations (Dalton, Thompson and Price, 1977). In the pyramid model promoting key technical specialist to a management position was the only way to reward them. Other organizations used dual ladder system for their professional employees in order to recognize the critical contributions made by them in terms of new pay and promotion schemes in the technical ladder.

However, Dalton and Thompson noted that these upward mobility could be handled by the individuals themselves, by contributing in a more value added
way, even if not done by the organization formally (Dalton and Thompson, 1993). This notion has ended up with the model called four stages career model, later came to be known as Novation model. This model also was cross culturally validated in a study by Peng (1995). He compared the data on United States employees with data on Singapore employees. He concluded that the model has cross cultural validity.

In the light of the above review of job characteristics and career management literature the general objective for the present study has been formulated as to know the moderating effects of GNS and novations in the job characteristics-internal work motivation relationship. The specific objectives are presented in the method chapter.