CHAPTER II

STUDIES ON ATTRIBUTION THEORY: LITERATURE SEARCH

This chapter surveys the literature on attribution theory and describes the findings that have relevance for this study and have contributed to the hypotheses for the present investigation.

STUDIES ON DIMENSIONS OF CAUSAL Attribution

The early theoretical analysis of Rotter (1966) and Heider (1958) guided much later research in the dimensions of causal attribution. A three-dimensional taxonomy for the causes of success and failure has emerged out of these efforts. A brief description of the three-dimensions follows:

(A) Locus of Causality

Rotter and his colleagues proposed a one-dimensional classification of causality. Causes either were within (internal) or outside (external) the person. In a similar manner Heider (1958) as well as de Charms (1968), Deci (1975) and many others have articulated an internal-external classification of causality. Rotter had labelled his dimension as 'locus of control'. Weiner (1979) however, contended that the concepts of 'locus' and 'control' are distinct and therefore should be separated; and he named the first dimension
of causes as 'Locus of causality' and second as 'controllability'. The locus of causality dimension underlines the internal-external description of causes. Ability, effort, mood and patience, for example, are properties internal to the person; whereas task difficulty, luck and teacher bias are external or environmental causes.

(B) Stability Dimension

Rotter and his colleagues (1966) demonstrated that expectancy shifts are more frequent and of greater magnitude in skill than in chance situations. They equated skill (referred as ability) with internal control and chance with external control. But Weiner (1972) pointed out that the comparisons of the behavioural effects (like expectancy shifts) of ability with luck confounded the locus of control and stability dimensions as ability is both internal and stable, and luck is both external and variable. Weiner (1972) proposed that Heider's (1958) four major outcome determinants could be classified on the basis of a stability dimension (stable versus unstable) as well as a causal locus dimension (internal-personal versus external - environmental). In Weiner's 2 x 2 taxonomic scheme, ability is seen as a stable, internal cause; task difficulty is stable and external; effort is unstable and internal; while luck is unstable and external. In later investigations Weiner (1974) and Weiner et.al. (1978) noted that the four factors mentioned earlier were not the only
perceived causes of success and failure, or even most salient ones in all achievement situations. Other factors such as mood, fatigue, illness and bias could also serve as necessary and/or sufficient reasons for achievement performance. The stability dimension characterizes causes on a stable (invariant) versus unstable (variant) continuum. Ability, task difficulty and patience are likely to be perceived as relatively fixed, while luck, effort and mood are more unstable—luck implies random variability, effort may be augmented or decreased from one episode to the next, mood typically is conceived as a temporary state.

(C) Controllability Dimension

Despite the conceptual and empirical gains that were stimulated by the two-dimensional taxonomy, Weiner (1974) and his associates eventually began to recognize some important deficiencies within the formulation. Weiner (1979) contended that 'locus or control' dimension should be separated into two distinct dimensions 'locus' and 'control'. Before that Rosenbaum (1972) also recognized some problems within two-dimensional taxonomy and proposed a third causal dimension 'intentionality' to Weiner's classification scheme to which Weiner (1979) later on gave the name 'controllability' dimension, arguing that the dimension Rosenbaum has identified was that of control but he mislabelled that dimension. However, long back Heider (1958) implied this particular
dimension when he stated that people are held responsible for their 'intentions' and 'exertions' (the components of "trying") but not so strictly for their ability.

The resulting three-dimensional taxonomy holds eight cells (2 levels of locus x 2 levels of stability x 2 levels of control). Among the internal causes, ability is stable and uncontrollable, typical effort is stable and controllable; mood, fatigue and illness are unstable and uncontrollable; and temporary exertion is unstable and controllable. Among the external causes, task difficulty is stable and uncontrollable; teacher bias may be perceived as stable and controllable; luck is unstable and uncontrollable; and unusual help from others is unstable and controllable (Weiner, 1979).

Some problems with this classification scheme still remain unsolved, particularly among the external causes. For example, can an external cause be perceived as controllable? For example, teacher bias may be controllable from the viewpoint of the teacher but may not be controllable from the viewpoint of the pupil. The proposed independence of the dimensions is also a difficult issue for further thought and research. Further, the placement of a cause within a dimension is not invariant over time or between people. For example, luck may be perceived as an internal, stable factor (He is lucky), or as an external unstable cause (A chance event). Similarly, effort is not also always considered
volitional. But so far, the prediction of behaviour has been based upon the subjective meaning of the causes to the individual, this inconsistency in the placement of the causes within the dimensions does not make any difference hence is not a theoretical shortcoming, but rather is a fact (Weiner, 1980).

A few studies have been conducted to investigate empirically various dimensions of attribution. Passer (1977) asked subjects to judge the similarity of fifteen causes of success and failure. Analysis revealed the dimensions underlying these judgements corresponding to "locus of causality" and "controllability". A multi-dimensional scaling analysis of causes of loneliness by Michella et al. (1982) found dimensions labelled as "locus of causality" and "stability", with "controllability" emerging as a third non-orthogonal dimension. A factor analytic study by Meyer (1980) of causal attributions for success and failure outcomes revealed factors corresponding to the "locus of causality", "stability" and "controllability" dimensions.

ATTRIBUTIONAL BIASES

Why do people make attribution in the manner they make? Are such attributions adaptive or maladaptive? These are the questions which focus on attributional errors. Attribution researchers find people to be effective processors of information who organize their world in a systematic manner, prone
to relatively few biases. But still there is a wide scope of error in attribution, as making proper attribution requires some sophisticated and complicated use of reasoning. In other words, the attribution process concerns perceptions about the causes of behaviour and not the actual causes of behaviour; and perceivers can and do err in their interpretations of behaviour, particularly, when they deal with limited, biased or constrained informational inputs.

Whether the particular attributions made by the subjects stem from motivational factors or from errors in information processing has also become a question of research. According to Heider (1958) attributions of causality are influenced by subjective needs and wishes as well as by the more objective evidence. He stated that sometimes the data are sufficiently ambiguous so that the person's own needs or wishes determine the attribution, and he coined the term "egocentric attribution" for this type of attributional errors.

Jones and Nisbett (1971) proposed what is referred as fundamental attribution error i.e., the pervasive tendency for actors to attribute their actions to situational factors, while observers tend to attribute the same actions to stable personal dispositions of the actor. The tendency stems primarily from a differential salience of the information available to the actor and the observer. Presumably, actor's attention is directed outward; they are likely to be especially
aware of the situational constraints impinging on them. For observer, the actor's behaviour is expected to be the more salient piece of information. On the other hand, Wortman (1976) stated that since people are motivated to maintain a sense of personal control, that is, people like to believe that their behaviour is under their own control and can be modified according to their own needs; hence they may wish to minimize the extent to which their behaviour is controlled by situational factors. He argues that Jones and Nisbett may be correct in arguing that situational factors are more salient to actors than to observers, but actors may still wish to believe that they can behave as they choose and not as the situation dictates.

Bell (1973) and Miller and Norman (1975) found that people are disposed to view other's behaviour as controlled by situational factors, while, Harvey et.al. (1975) found that only when a person's behaviour is extremely negative, he may exaggerate the situational constraints to ward off personal blame. These conclusions are not fully consistent with Jones and Nisbett (1971) hypothesis. Harvey et.al. suggested that Jones and Nisbett (1971) while considering differential information salience and availability, ignored the motivational factors which are equally important to explain attributional errors.

According to Fischhoff (1976), it is not the attributional information processing that is being questioned, but the
Attributional biases are essentially proper conclusions drawn from improper premises. The impropriety of the premises arises either from inefficient information gathering or hedonic distortion of what is happening, and not from difficulties in handling or combining information.

Thus, one type of attributional errors stem from 'non-motivational' causes, such as unavailability or misuse of relevant information, while the other type of attributional errors have 'motivational' causes, and such errors serve in a ego-defensive or ego-enhancing way. This sort of errors are explained by propositions that people make attributions to protect their self-esteem and sense of personal worth, and to avoid personal blame and feeling of guilt. In other words, attributions distort incoming data to better serve their own ego-defensive functions in an ego-enhancing manner.

In their review, Miller and Ross (1975) raised two questions regarding the concept of self-serving attribution: (i) are there data to support the conception that people employ self-protective attribution after failure and self-enhancing attribution after success? and (ii) if yes, are there non-motivational interpretations for this self-serving effect?

In response to the first question, Miller and Ross claimed to have found support for self-enhancing attribution but only minimal evidence for self-protective attribution. In response
to the second question, Miller and Ross offered three informational non-motivational processes which may account for the association between success and internal attributions: (a) people are more likely to expect success than failure, and people tend to take responsibility for expected outcomes (Feather, 1969); (b) people are more likely to perceive covariation and, therefore, a causal relation between their behaviour and increasing success than between their behaviour and constant failure; and (c) erroneous conception of contingency lead people to infer personal responsibility from the co-occurrences of their responses and desired outcomes (i.e., success), while the co-occurrence of responses and negative outcomes (i.e., failure) are ignored.

Bradley (1978) labelled the effects of needs and wishes on attributions as defensive, egocentric, egotistic, or self-serving. Specifically he suggested that people attempt to enhance or protect their self-esteem by taking credit for success and denying blame for failure. The notion that internal attribution of success and external attribution of failure are self-serving was supported by Nicholls (1975) and Riemer (1975).

The fundamental attribution error i.e., "general tendency to overestimate the importance of personal or dispositional factors relative to environmental influences" (Ross, 1977) also has been explained in two ways. Internal explanations
have been framed in terms of individuals' perceptual and cognitive information-processing biases (Arkin and Duval, 1975; Jones and Nisbett, 1971). An external explanation, which emphasizes that social pressures from the environment are applied to the individual is founded on the self-presentation perspective and assumes that the social environment is the cause of an individual's behaviour (Jellison, 1981). More particularly, it assumes that an individual's actions are guided by attempts to create impressions that will gain social approval and avoid social disapproval. Bradley (1978) explained that publicly stated causal attributions are part of self-presentation strategies that are designed to gain the approval or avoid the disapproval of others. He suggested that one's public statements of the causes of one's own behaviour may be mediated by the desire to maintain or gain a positive public image (i.e., a public-esteem motive) rather than a concern for one's private self-image.

STUDIES ON ATTRIBUTION IN SUCCESS AND FAILURE SITUATIONS

Some of the early studies on attribution were addressed to causal attributions of success and failure for academic performance and its effect on expectancy and affect. Weiner and Kukla (1970) conducted six laboratory experiments to relate achievement motivation to causal ascription and found that cognitions about causality mediate between level of achievement needs and performance. They reported that indi-
individuals high in resultant achievement motivation are more likely to take personal responsibility for success than individuals low in achievement motivation; but perceived responsibility for failure did not differ in the two motive groups.

Weiner et al. (1971) postulated that in achievement-related contexts the causes perceived as most responsible for success and failure are ability, effort, task difficulty and luck. Earlier, Rotter (1966) had noted that expectancy changes in skill situation were different from expectancy changes in chance situation. Feather (1967) found that expectancy estimates were higher and decreased more rapidly with increasing difficulty of the task. It was further found that unexpected success was more often attributed to good luck than expected success and was associated with greater satisfaction, while unexpected failure was more often attributed to bad luck than expected failure and was associated with greater satisfaction (Feather, 1969).

Frieze and Weiner (1971) reported two experiments which examined causal attributions in achievement contexts. It was found that success was more likely to be attributed to internal factors (ability and effort) than was failure.

Feather (1971) tried to find out the causal attributions for success and failure in relation to expectations of success. It was found that the unexpected outcome was more often attri-
buted to variable environmental factors (good or bad luck) than the expected outcome.

Kukla (1972) tried to find out attributional determinents of achievement related behaviour. He demonstrated that subjects who differ in achievement level also differed in their manner of ascribing the causes of their achievement at a task. He found that high achievers more frequently attributed their successes or failures to the degree of effort expended than did low achievers.

Weiner et.al. (1972) presented a cognitive model of motivation in which causal attribution mediated achievement outcomes and subsequent achievement-related behaviour. They conceptualized a new attributional dimension of stability arguing that the locus of control and stability dimensions of causality are confounded. Weiner (1972) in his book on attribution theory presented a three-stage model of causal attribution. Weiner et.al. (1976) conducted an investigation manipulating the number of success experiences and assessing causal attributions and expectancy of success. In a departure from prior research a new method of assessing attributions was devised that separated the locus of control and the stability dimensions of causality. The results strongly supported the attributional position, while contradicting social learning theory of Rotter (1966). Weiner (1974) indicated that research restricting causality to the four
causes might give rise to false conclusions and noted that factors such as mood, fatigue, illness and bias could serve as necessary and/or sufficient reasons for achievement performance.

Weiner, Russell and Lerman (1978) conducted an investigation to test their presumption that a variety of cognitions, particularly causal attributions, influence emotional reactions in achievement-related contexts. The study led to compilation of a list of approximately 250 potential affective reactions to success and failure in academic context.

Weiner (1979) presented a theory of motivation based on attributions of causality for success and failure along with three central causal dimensions: stability, locus and control. These dimensions are linked with expectancy change, esteem related emotions, and interpersonal judgements. Weiner (1980) in an attempt to test the attributional model empirically, examined the relations of causal attributions and affect to judgements of help-giving in a total of 280 under-graduates in six experiments. The influence of the three-dimensions of causality (locus, stability and control) on judgements concerning the lending of class notes was evaluated. It was hypothesized that attribution to internal controllable factors maximized negative affect (disgust and anger) and promoted avoidance behaviour. However, attributions to uncontrollable factors (e.g., ability or teacher short-coming) were anticipated to generate positive affect (sympathy) and give rise
to approach behaviour (help). These hypotheses and an attributional model of helping were investigated using a simulative judgements paradigm with both correlational and experimental designs. Results indicated the existence of a temporal sequence of attribution-effect-action in which attributions guide feelings, and feeling (emotional reactions) in turn direct the behaviour.

Kun and Weiner (1973) using a questionnaire about a hypothetical high school student on 197 undergraduates judged the perceived presence or absence of ability or effort, given information about task outcome, task difficulty and the state of complementary cause. Data suggested that a multiple sufficient causal schema was used to explain events (i.e., the presence of ability or effort was perceived as sufficient to produce success at an easy task, while the absence of ability of effort was perceived as sufficient to produce failure at a difficult task. A multiple necessary schema was employed to explain uncommon events (i.e., success at a difficult task required both ability and effort, while failure at an easy task was caused by low ability and low effort). Failure outcomes were more likely to elicit a multiple sufficient schema. In achievement related contexts, ability and effort were perceived as negatively covarying causal determinents of typical successes and failures.
Simon and Feather (1973) found that expected outcomes tended to be attributed to the stable dispositional factor most influencing initial confidence, and unexpected outcomes to good or bad luck.

Luginbuhl et al. (1975) observed a tendency to attribute success more than failure to internal and unstable factors and a strong tendency to attribute success to effort as opposed to ability, but to attribute failure to lack of ability as opposed to lack of effort.

Freize (1976) conducted two studies which employed an open-ended format to determine the relevance of the causal categories. Results supported the validity of previously employed causal categories and suggested other important but previously ignored causes.

Sohn (1977) studied the affect productivity of effort and ability self-attributions for success and failure and concluded that ability attributions have a greater affective impact when morally neutral affects (e.g., happiness and unhappiness), as opposed to morally neutral affects (e.g., pride and shame) are involved. Bar-tal and Darom (1979) indicated that subjects tended to attribute success mainly to external causes and failure mainly to internal causes.

Mcfarland and Ross (1982) found that success produced greater positive affect, less negative affect, and higher feelings of self-esteem than failure, only when ability attributions were induced.
Anderson and Jennings (1980) found that following failure subjects who attributed their performance to strategies (skill factor) expected more success in future attempts than did ability subjects, and also expected to improve with practice.

Wortman et al. (1973) found that subjects who failed assigned causality for their performance to external factors, they also viewed themselves as less motivated, and task as less important than successful subjects.

McMahan (1973) using paired comparison method to assess attribution found that expectancy disconfirmation led to higher attributions to effort and luck and lower attributions to ability. As hypothesized attributions to ability and task were associated with high expectancies following success and with low expectancies following failure; while attributions to effort and luck were associated with low expectancies following success and with high expectancies following failure.

Valle (1974) indicated that by manipulating the stability of the perceived cause of an outcome it is possible to affect the future expectancies of a perceiver.

Riemer (1975) in an investigation to examine the influence of one's causal attribution for success on subsequent achievement behaviour tested two of Weiner's hypotheses: (a) that the locus of control of the attribution would influence the
subject's affective response, and (b) that the stability of the attribution would influence the subject's expectancy of success. As predicted, subjects given the internal attribution instructions (ability and effort) reported more positive affect than those receiving external attribution instructions (task difficulty and chance); but the results of stability dimension were not as clear as those for the locus of control.

Valle and Frieze (1976) found that the stability of attributions is a function of the difference between the person's initial expectations and the actual outcome; and change in expectations is a quadratic function of the difference between initial expectations and the actual performance.

House (1976) conducted two experiments to demonstrate the interactive effects between locus of control and expectancy confirmation - disconfirmation in determining attribution of failure. It was found that experiencing an expected versus an unexpected failure significantly influenced the performance attributions of internals but not externals. Kovenklioglu and Greenhaus (1978) found that among students who succeeded on the tests, expected and actual future performance were positively related to attributions to high ability and negatively related to attributions to good luck; and among students who experienced failure, expected performance was positively related to attributions to low effort and negatively related to attributions to low ability.
Arkin and Maryyama (1979) conducted a questionnaire study with 207 college students and found that successful subjects perceived internal factors as more important causes and unsuccessful subjects perceived external factors as more important causes of their own performance than the performance of the average student. Johnson and Schroeder (1980) investigated with 150 under-graduates the relationship between attributions of causality for success and failure and behavioural prescriptions for improvement of a learner. The data showed no systematic relationship between attributions and behavioural prescriptions.

**EFFECT OF PERSONAL AND PERSONALITY VARIABLES ON ATTRIBUTION**

The interactive effect of some of the personal and personality variables have also been studied in attribution research. Fitch (1970) found that low self-esteem subjects attributed significantly more causality to internal causal factors for failure than did high self-esteem subjects.

Kukla (1972) found that high achievers more frequently attributed their successes or failures to effort than did low achievers. On the same line, Weiner and Kukla (1970) as mentioned earlier found that individuals high in resultant achievement motivation are more likely to take personal responsibility for success than individuals low in achievement motivation, but clear differences in perceived responsi-
bility for failure were not exhibited between the two motive groups.

Effect of belief in internal vs. external locus of control on attribution has also been examined by various researchers. Internals were found to attribute their outcomes more to internal factors than did externals (Krovetz, 1974; Lefcourt, et al., 1975; Gilmor and Reed, 1979). Regarding the effect of locus of control on differential attribution for different outcomes (i.e., success and failure), Davis et al. (1972) found that internals showed a greater tendency to blame themselves for failure than externals, however, the two groups did not differ in taking personal credit for success. On the other hand, Gilmor et al. (1974) found that internals were significantly more internal in their attribution for success than were externals; while, under failure, the opposite trend was observed. McNeill and Jacobs (1980) found that causal attributions to internal sources were related to internal locus of control in males and to external locus of control in females.

Goldberg and Scott (1976) found that authoritarians were more internal in their attribution than egalitarians.

Feather and Simon (1973) found that subjects who succeeded and wrote fear of success stories, rated external factors as less important, and subjects who failed and wrote fear of success stories rated external factors as more important.
Kuiper (1978) found that non-depressives made internal attributions for a successful outcome and external attributions for a failure outcome, whereas depressives made internal attributions for failure as well as for success. Abramson et al. (1978) found that depressed subjects made significantly more internal attribution for negative outcomes than non-depressed subjects.

Greenberg and Rosenfield (1979) examined the effect of ethnocentrism on attribution and found that the more ethnocentric the subjects were, the more they tended to give whites greater credit for success than blacks and the more they tended to give whites less blame for failure than blacks.

Studies aimed at examining sex differences in causal attributions found that differential attributions were made for male and female performers. (Feldman and Kiesler, 1974; Deaux and Emmswiller, 1974; Etaugh and Brown, 1975; and Yarkin et al. 1982).

SELF AND OTHER ATTRIBUTION

In the paradigm of self-other attribution, "self" and "other" can work at unrelated tasks, co-operate on the same task, or compete against one another. Studies in which self and other performed independently either showed no clear evidence regarding the self-serving hypothesis (Wortman et al. 1973), or actually produced results contrary to the self-serving
prediction (Feather and Simon, 1971). In contrast, a study on co-operation in pairs (Wolosin et.al. 1973) did produce self-serving attributions specifically, subjects assumed more responsibility for success and less blame for failure than they gave to their partners. Studies in which self and other competed provided strong support for self-serving predictions. Streufert and Streufert (1969) and Wolosin et.al. (1973) showed that subjects were more likely to attribute responsibility for success to themselves than to their failing partners (self-enhancing effect). Stephan, Presser, Kennedy and Aronson (1978) examined the effects of co-operation and competition within the same experiment and obtained both self-enhancing and self-protective effects for competition but not for co-operation.

STUDIES ON ATTRIBUTION PROCESS

Central to attribution theory is the assumption that people spontaneously engage in attributional activities. But there is little or no published evidence to substantiate this claim (Bem, 1972; Wortman and Dintzer, 1978), since in most of the attributional studies, subjects typically are asked to make attributions either by completing a fixed number of rating scales or by providing open-ended explanations for events. Both of these methods are highly reactive. Thus, in the absence of adequate methodology, the issue of whether lay people engage in spontaneous attributional activities remains unsolved.
Also unknown is when do people ask "why" questions; since no one has proposed that the attribution process goes on at all the times. To the contrary, many investigators in the attribution area have contended that individuals carry with them sets of beliefs, schemas, or presuppositions as to how various causes and effects are related (Kelley and Michela, 1980).

A corollary of the above reasoning is that attributional search takes place when one's experiences cannot be readily assimilated into one's existing belief system. A difficulty in the assimilation of information results from disconfirmation of existing beliefs and related expectancies. The hypothesis that expectancy disconfirmation instigates attribution process has been alluded to by a number of investigators. (Lau and Russell, 1980; Pyszczynski and Greenberg, 1981). Furthermore, it has been demonstrated that novel or unexpected events promote exploration (Berlyne, 1960). It has also been demonstrated that this search is more likely given failure (rejection) than success (acceptance) (Folkes, 1978). Furthermore it is plausible to speculate that unexpected events are more likely to lead to "why" questions than expected events (Lau and Russell, 1980). It has been demonstrated that during task performance, failure-oriented or "helpless" students especially tend to supply attributions. (Diener and Dweck, 1978), who also intimated that "mastery-oriented" students do not engage in attribution making.
ATTRIBUTION STUDIES IN INDUSTRIAL AND ORGANIZATIONAL SETTING

So far very few studies regarding attribution have been conducted in industrial and organizational context.

Adler (1980) in his study attempted to investigate the interactive impact of self-esteem on job holders' attribution for job satisfaction and dissatisfaction. He found that those high in self-esteem were significantly more internal in their attributions for satisfaction than those low in self-esteem. The two groups were not significantly different, however, in their attributions for dissatisfaction. Both groups were more internal in their attributions for satisfying than for dissatisfying incidents.

Mowday (1981) tried to examine the attributions of employees in seven agencies of State and country government concerning the reasons for turnover among their fellow employees. Results suggested that employees with positive job attitudes were less likely to indicate that others left because of job dissatisfaction.

Reno (1981) found that female occupationals attributed success more to the unstable causes of effort and luck, as well as the stable internal cause of inter-personal skill, while male occupationals made higher attributions to the stable causes of ability and task ease.
Garland (1977) found that causal attributions for the performance of female were strongly related to subjects' attitudes toward women in management.

Tucker (1979) found that the final decision to accept or reject an applicant by an interviewer is closely related to causal interpretations of past outcomes of subjects.

Kovenklioglu (1978) found that among the students who succeeded on the tests, expected and actual future performance were positively related to attributions to high ability and negatively related to attributions to good luck; and among the students who experienced failure, expected performance was positively related to attributions to low effort and negatively related to attributions to low ability.

Porac (1981) found that internal attributions were associated with higher satisfaction in the case of work success and lower satisfaction in the case of work failure. Interestingly, he found that attributional stability was more strongly related to satisfaction than attributional internality. Thus, high satisfaction was associated with making internal unstable attributions for work success and external stable attributions for work failure.

APPLICATIONS OF ATTRIBUTION THEORY

Concepts and model of attribution theory have been used largely in curbing learned helplessness.
Davison and Valins (1969) found that subjects who attributed their behavior change to themselves subsequently perceived the shocks as less painful and tolerated significantly more than subjects who attributed their behavior changes to the drug.

de Charmes (1972) found that school teachers who received personal causation training showed increased motivation for teaching and it also helped indirectly in enhancing academic achievement of students.

Weiner and Seirad (1975) found that ascription of failure to the external factor augmented the performance of subjects low in achievement needs.

Williams (1976) found that attributed ability was directly related to the subject's aptitude scores and inversely related to his diligence scores. However, attributed effort was directly related to diligence scores and it was unrelated to the aptitude manipulation.

Dweck (1975) found that following training, the subjects in the "success only treatment" continued to evidence a severe deterioration in performance after failure, while subjects in the "attribution retraining treatment" maintained or improved their performance. In addition, the subjects in the later condition showed an increase in the degree to which
they emphasized insufficient motivation versus ability as a determinent of failure.

Chapin and Dyck (1976) found that children receiving "success only" training without the benefit of attribution retraining did not show improvement in persistence.

Klein and Seligman (1976) in their study got support for the learned helplessness model of depression which claims: (a) that uncontrollable events induce distorted perceptions of response-reinforcement independence in non-depressed people which cause performance deficits parallel to those found in naturally occurring depression, and (b) that experience with controllable events reverse the perceptions of response-reinforcement independence and the performance deficits associated with both helplessness and depression.

Klein et al. (1976) found that non-depressed subjects given unsolvable problems showed anagram deficits parallel to those found in naturally occurring depression. When depressed subjects attributed their failure to the difficulty of the problems rather than to their own incompetence, performance improved strikingly. It is suggested that failure in itself is not sufficient to produce helplessness deficits in man, but failure that leads to a decreased belief in personal competence is sufficient.
Wortman et al. (1976) found that subjects who attributed failure to their own incompetence felt considerably more stress than subjects who made situational attributions.

Andrews and Debus (1978) found that persistence was positively related to the attribution of failure to insufficient effort and negatively related to attributions to ability and task difficulty by both males and females.

Miller and Norman (1979) stated in their review of learned helplessness that Seligman's theory of learned helplessness is inadequate to account for present data in several areas, notably etiology and generalization. They presented a revised model of learned helplessness in humans that suggest that the individual's attributions of non-contingent failure experiences predict the degree and parameters of learned helplessness.

Green (1978) found that low aptitude scores led to greater ability attributions regardless of past performance while not affecting effort attributions. High aptitude scores led to greater effort attributions given poor past performance and a tendency to lesser effort attributions given successful past performance while not affecting ability attributions. Ability attributions also were found to be negatively related to expectancies about the students' future success.

Hoffman and Weiner (1982) gave success and failure experiences at a coding task, as well as one of three causal attributions
(ability, effort or task difficulty or ease) to 72 trainable mentally retarded adults and found that causal attributions interacted with outcome in influencing speed of performance and that success enhanced performance only when coupled with an ability attribution.

Hugdahl (1980) found that internal attributions are necessary prerequisites for learned helplessness.

THE PRESENT STUDY

The present study is an attempt to employ attribution theory in the job context in industrial setting to study weavers' on-the-job performance.

The Human Resources Division of ATIRA, where the present study was conducted is engaged in imparting training to weavers through programmes which are based on findings in its previous studies on weavers. These studies have shown that high efficiency and low efficiency weavers differed significantly on work practices. The experience of the Division with weavers in training programmes also reveals that generally high efficiency weavers consider internal and controllable factors responsible for their given level of efficiency as against the low efficiency weavers who consider external, uncontrollable factors responsible for their low efficiency. The nature of weavers' job is such that differences in performance efficiency of weavers working on same set of
machines in two different shifts by rotation can, to a large extent, be attributed to weavers themselves. Such in-built controls for objectively comparing the performance of persons is generally not available for most jobs. Attribution theory of motivation seems to fit in best in this situation where efficiency differences can be explained in terms of differences in cognitions of job holders.

The study has three major objectives:

1. To test the assumptions of the attribution theory in the context of performance efficiency.

2. To examine whether a change in causal attribution of low efficiency can be brought about through training.

3. To examine the impact of changes in attribution on performance efficiency.

Various specific hypotheses were framed with respect to above mentioned objectives.

With regard to first objective, following hypotheses were framed:

- Performance efficiency would be attributed to qualitatively different causal factors by those who are high or low in efficiency.

- High efficiency and low efficiency weavers would differ in their perceptions of various causal dimensions of attribution.

- Causal attributions would be generalized across the high efficiency and low efficiency situations.
With respect to second objective, following hypothesis was formulated:

- A change in causal attribution of low efficiency would be greater through a combined attribution and skill training than in attribution training or skill training alone.

Regarding the third objective, hypotheses were formulated as follows:

- Change in attribution of causality for low performance efficiency from uncontrollable factors to controllable factors would result in improved performance.

And, as the performance on job also depends on person’s skills to do the job, it was hypothesized that -

- The group that undergoes training in both attribution and skills would show more improvement in performance than groups which undergo the skill or attribution training alone.