CHAPTER III

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CHAPTER III
METHOD OF INVESTIGATION

The present chapter presents statement of problem, objectives and hypotheses, research design, sampling technique, selection criteria, sample description, variables selected for the study and their operational definition, tools used and their description, procedure for data collection used in the present investigation.

3.1 STATEMENT OF THE PROBLEM

The research problem of the present study was to investigate the influence of coping with organizational change on organizational commitment and job satisfaction with reference to individual factors such as self-esteem, change self-efficacy, internal locus of control, optimism, neuroticism, openness to experience, risk aversion, and tolerance for ambiguity.

3.2 RESEARCH QUESTIONS

1. Would individual factors influence coping with organizational change, organizational commitment and job satisfaction?

2. Would coping with organizational change influence organizational commitment and job satisfaction?

3. Would coping with organizational change mediate the relationship between individual factors with organizational commitment and job satisfaction?
3.3 OBJECTIVES OF THE STUDY

1. To find out the relationship of various individual factors such as self-esteem, change self-efficacy, locus of control, optimism, neuroticism, openness to experience, risk aversion, and tolerance for ambiguity with coping with organizational change.

2. To find out the relationship between individual factors and organizational commitment.

3. To find out the relationship between individual factors and job satisfaction.

4. To find out the relationship of coping with organizational change with organizational commitment and job satisfaction.

5. To find out the mediational effect of coping with organizational change on organizational commitment and job satisfaction.

6. To develop a path model for organizational commitment and job satisfaction, linking their relationship with individual factors and coping with organizational change as a mediator.

3.4 HYPOTHESES

Hypotheses were formulated on the basis of review of research studies reported in the previous chapter along with some of the important theories relevant to the present study.

3.4.1 SELF-ESTEEM

According to the cognitive adaptation theory (Aspinwall & Taylor, 1992) there are three individual related variables that are important in addressing employee reactions...
to change. The theory suggests that the individuals who maintain well-being even during stressful life events will have high levels of self-esteem, optimism, and perceived control. **Judge et al (1999)** had proved that the personality factors such as internal locus of control, self-efficacy, self-esteem, positive affectivity, openness to experience, risk aversion, tolerance to ambiguity influenced the coping with change and which in turn mediated the relationship with intrinsic outcomes as job satisfaction and organizational commitment. In another study by **Wilson (2010)**, it was found out that dispositional traits influence the resistance to change and in turn on job Satisfaction and organizational Commitment. **Hoffi-Hofstetter and Mannheim (1999)** in their study among mid level managers who work in organizations after decline, found that internal locus of control and self-esteem as predictors of coping.

Based on these findings, the following directional hypothesis was formulated.

Self-Esteem would be positively related to coping with organizational change **(Hypothesis 1)**

### 3.4.2 CHANGE SELF-EFFICACY

**Gomes (2009)** found change efficacy was strongly related to change processes. change self-efficacy was found to be significant predictor of job satisfaction and organizational commitment. In a study by **Smollan, Matheny and Sayers (2010)**, it was found that change self-efficacy influenced the perception of the managers as to how they react to organizational change. **Martin, Jones and Callan (2005)** found that change self-efficacy was significantly related to job satisfaction and organizational
commitment lowering the turn over intentions during organizational change. Hence it was hypothesized that Change Self-Efficacy would be positively related to coping with organizational change (Hypothesis 2)

3.4.3 INTERNAL LOCUS OF CONTROL

Kammeyer-Muller, Judge and Scott (2009) in their meta-analysis found that individuals with internal locus of control perceived few stressors and engage in coping process. Also Peacocok and Wong (1996) found locus of control as the independent predictor of control appraisals and coping during stressful situation. Hofffi-Hofstetter and Mannheim (1999) in their study among mid-level managers who work in organizations after decline, found that internal locus of control as predictor of coping. These studies provided the base for the hypothesis mentioned below

Internal locus of control would be positively related to coping with organizational change (Hypothesis 3)

3.4.4 OPTIMISM

Wanberg and Banas (2000) had proved that self-esteem, optimism and perceived control had a strong relationship with coping with change and in turn with job satisfaction. Avey, Wernsing and Luthans (2008) found that optimism, efficacy, hope and resilience were related to positive emotions and in turn related to the attitude and behaviours relevant to organizational change. Ravikumar and Kamalanabhan (2005) found optimism, self-esteem, change self-efficacy and perceived control
influence employees for coping with organizational change and also related to job satisfaction and organizational commitment. So the next hypothesis was framed on the basis of these findings.

Optimism would be positively related to coping with organizational change (Hypothesis 4)

3.4.5 NEUROTICISM


Neuroticism would be negatively related to coping with organizational change (Hypothesis 5)

3.4.6 OPENNESS TO EXPERIENCE

Edwards (2002) found openness to experience and neuroticism were significantly related to openness to change and in turn to job satisfaction and organizational commitment. Tziner, Manor, Vardi and Brodman (2008) found that openness to
experience was significantly correlated to job satisfaction and organizational commitment. Oreg (2006) tested a model of resistance to organizational change. Personality traits (Big five) were found to be significantly associated with employees’ attitude towards change and in turn towards job satisfaction and organizational commitment. As the reviews of research studies suggest a strong linkage between openness to experience and coping with organizational change following directional hypothesis was formulated.

Openness to experience would be positively related to coping with organizational change (Hypothesis 6)

3.4.7 RISK AVERSION

Dijk (2009) found that perception of risk and self-efficacy were the major predictors of coping with stress caused during organizational change. Judge et al (1999) had proved that the personality factors such as internal locus of control, self-efficacy, self-esteem, positive affectivity, openness to experience, risk aversion, tolerance to ambiguity influenced the coping with change and which in turn mediated the relationship with intrinsic outcomes as job satisfaction and organizational commitment. Based on the above research study hypothesis was formulated.

Risk aversion would be negatively related to coping with organizational change (Hypothesis 7)
3.4.8 TOLERANCE FOR AMBIGUITY

Cools and Van Broeck (2007) found that tolerance for ambiguity, locus of control, self-efficacy were more influential personality factors in organizational change process. Ashford (1988) found that tolerance for ambiguity was related to several aspects of coping with the changes induced by AT&T’s divestiture. Rush, Schoel, and Barnard (1995) found that items assessing tolerance for ambiguity were correlated with several aspects of coping with change among state government employees. So it was hypothesized that Tolerance for ambiguity would be positively related to coping with organizational change (Hypothesis 8)

3.4.9 COPING WITH ORGANIZATIONAL CHANGE

Ravikumar and Kamalanabhan (2005) in Indian industries, it has been proved that job satisfaction and organizational commitment were positively related to coping with organizational change. Rodda (2007) found that commitment to change and job satisfaction was mediated by coping with change. Judge et.al (1999) found that coping with organizational change mediated the relationship between personality traits and Job satisfaction & organizational commitment. Hence based on the reviews of research findings the last two hypotheses were formulated.

Coping with organizational change would positively be related to the following outcomes: (a) organizational commitment, (b) job satisfaction (Hypothesis 9)
Coping with organizational change partly would mediate the relationship between individual factors and the following outcomes: (a) organizational commitment, (b) job satisfaction (Hypothesis 10)

3.5 PILOT STUDY

Pilot study was undertaken to ascertain the suitability of the instrument which were administered to 170 participants from three different organizations. The researcher had prepared a check list to assess the change implementation (the check list is enclosed in the appendix). Organizations which had undergone change were contacted. Organizations which permitted the researcher to carry out the study were initially assessed with the check list. After the confirmation from the top management about the change implementation, Pilot study was carried out in three different organizations (Insurance, BPO and production unit). All the three organizations had undergone acquisition. Total sample size was 170 out of which 53 from insurance company, 49 from BPO and 68 from production sector. Among them 120 were men and 50 were women with a mean age 34.2, with experience ranging from 2 to 15 years in the same organization. Samples were selected only from the management cadre i.e., junior level (29), middle level (105) and senior (36) management cadre employees as they have been involved in the change implementation. Reliability of the tools was established. The content validity of the tool was established by getting the opinion from the experts such as Psychologist, HR professionals, and OD consultants.
3.6 RESEARCH DESIGN

The research design used in the present study was an ex-post facto, multivariate, cross-sectional research design as it attempted to examine retrospectively the relationship of individual factors to coping with organizational change across six different organizations. Ex-post facto research is systematic empirical inquiry in which the scientist does not have direct control over the independent variables because their manifestations have already occurred or because they are inherently not manipulable while inferences about relation among variables are made, without direct intervention, from concomitant variation of independent and dependent variables (Kerlinger, 1986).

3.7 SAMPLING TECHNIQUE

Respondents selected as sample for the study were working in the organization which had undergone change. All the employees were experiencing change in their organization. They all belong to management cadre (junior, middle or senior) in the same organization. Purposive sampling method was adopted with the following inclusion and exclusion criteria.

The researcher had developed a check list to assess the change implementation that had occurred in the organization. Organizational changes are an ongoing process characterized by the fine-tuning of the fit or match between the organization’s strategy, structure, people and processes (Dunphy & Stace, 1993). Organizational
change includes change in policies, procedures, technology, management, etc. The check list included the changes such as:

- reorganization efforts
- downsizing
- top management change
- technology change
- structural change
- policy change
- change in physical environment
- cultural change
- merger and acquisition

3.7.1. INCLUSION CRITERIA

1. If the organization had made any of the five above said changes, it was considered for the study.

2. Confirmation of the top management regarding the changes.

3. Management cadre employees were selected for the study.

3.7.2 EXCLUSION CRITERIA

1. Changes taken place only in few departments

2. Employees who worked as contract laborers, clerks, office assistance were not considered for the study.

3. Employees who joined after the change were not considered for the study.
3.8 SAMPLE DESCRIPTION

A total sample of 442 employees from 6 different organizations was selected. The age of the sample ranged from 20 years to 60 years and experience ranged between 2 years and 18 years. Out of 442 employees, 324 were men and 118 were women; 57 were junior, 295 were middle and 90 were senior level management employees. Junior level management employees included Sr. Executives, Asst. managers, Accounts Officers; Middle level included Managers, Senior Managers and Asst. General Mangers; Senior level included General Managers and Heads of all Departments. A brief description of the characteristics of the sample selected for the study is given in the following tables

TABLE 3.1: OVERALL SAMPLE DESCRIPTION

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Sample (N)</th>
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</thead>
<tbody>
<tr>
<td>Production</td>
<td>90</td>
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<tr>
<td>e- publishing</td>
<td>66</td>
</tr>
<tr>
<td>Logistics</td>
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<td>Pharmaceuticals</td>
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<td>Hotel</td>
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<td>Insurance</td>
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</tr>
<tr>
<td>Type of organization</td>
<td>Gender</td>
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<td>----------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Production</td>
<td></td>
</tr>
<tr>
<td>Job Level</td>
<td>Junior</td>
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<tr>
<td></td>
<td>Middle</td>
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<td></td>
<td>Senior</td>
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<tr>
<td></td>
<td>Total</td>
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<tr>
<td>e-publishing</td>
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<tr>
<td>Job Level</td>
<td>Junior</td>
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<tr>
<td></td>
<td>Middle</td>
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<td></td>
<td>Senior</td>
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<tr>
<td></td>
<td>Total</td>
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<tr>
<td>Logistics</td>
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<td>Job Level</td>
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<td></td>
<td>Senior</td>
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<td>Total</td>
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<tr>
<td>Pharmaceuticals</td>
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<td></td>
<td>Total</td>
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<tr>
<td>Hotel</td>
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<tr>
<td>Job Level</td>
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<td></td>
<td>Middle</td>
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<td>Senior</td>
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<td></td>
<td>Total</td>
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<tr>
<td>Insurance</td>
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<td>Job Level</td>
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<td>Middle</td>
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<tr>
<td></td>
<td>Senior</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>
3.9 VARIABLES SELECTED FOR THE PRESENT STUDY

A list of predictor, mediating and outcome variables chosen for the study is presented below

PREDICTOR VARIABLES

1. Self-Esteem
2. Change Self-efficacy
3. Internal locus of control
4. Optimism
5. Neuroticism
6. Openness to experience
7. Risk aversion
8. Tolerance for ambiguity

MEDIATING VARIABLE

Coping with organizational change

OUTCOME VARIABLES

1. Organizational commitment
2. Job satisfaction
3.10 OPERATION DEFINITIONS OF THE VARIABLES USED

3.10.1 SELF-ESTEEM

Self-esteem is the evaluation of self worth by assessing positive and negative feeling about the self. In other words, the extent to which, an individual believes himself to be capable, significant, successful and worthy (Rosenberg, 1965).

3.10.2 CHANGE SELF-EFFICACY

Change related self-efficacy is an individual’s perceived ability to handle change in a given situation to function well on the job despite demands of the change (Ashford, 1988)

3.10.3 INTERNAL LOCUS OF CONTROL

Locus of control is the perception by the individual of his or her ability to exercise control over the environment. Those who are characterized by an internal locus of control believe that they have control over their environment and their personal successes (Levenson, 1981).

3.10.4 OPTIMISM

Scheier and Carver (1985) defined optimism as a set of generalized positive outcome expectancies. Optimistic people generally expect things to happen in their favour. They also expect that future will be more of good outcomes than bad ones.
3.10.5 NEUROTICISM

It is associated with emotionality, self-consciousness, physiological reactivity to stress and behavioural inhibition. (Costa & McCrea, 1992)

3.10.6 OPENNESS TO EXPERIENCE

It is generally associated with intelligence, perceptiveness, creativity, imagination, tolerance, culturedness, and inquisitiveness (Costa & McCrea, 1992)

3.10.7 RISK AVersion

According to Lopes (1994), risk aversion is theorized as a function of differential attention to various stimuli in risky situations.

3.10.8 TOLERANCE FOR AMBIGUITY

Budner (1962) defined tolerance for ambiguity as the tendency to perceive ambiguous situations as desirable, whereas the intolerance of ambiguity refers to the tendency to perceive ambiguous situations as sources of threat.

3.10.9 COPING WITH ORGANIZATIONAL CHANGE

Resources possessed by the employees to handle the stress that was created during organizational change (Judge & Vladimir, 1998)

3.10.10 ORGANIZATIONAL COMMITMENT

Organizational commitment refers to the extent to which the employees of an organization see themselves as belonging to the organization (or parts of it) and feel attached to it (Mowday et al., 1979)
3.10.11 JOB SATISFACTION

Positive emotional state that results from the evaluation of the experiences given by the job (Locke, 1976)

TABLE 3.3 TOOLS USED IN THE STUDY

<table>
<thead>
<tr>
<th>Sl.no.</th>
<th>Tools used for the study</th>
<th>Author(s)</th>
<th>Reliability co-efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Change self-efficacy</td>
<td>Ashford (1988)</td>
<td>0.692</td>
</tr>
<tr>
<td>3.</td>
<td>Internal locus of control</td>
<td>Levenson (1981)</td>
<td>0.802</td>
</tr>
<tr>
<td>4.</td>
<td>Revised Life Orientation Test (LOT-R) (optimism)</td>
<td>Scheier, Carver and Bridges (1994)</td>
<td>0.776</td>
</tr>
<tr>
<td>5.</td>
<td>NEO FFI (Openness to experience &amp; Neuroticism)</td>
<td>Costa and McCrea (1992)</td>
<td>0.757</td>
</tr>
<tr>
<td>6.</td>
<td>Risk aversion scale</td>
<td>Cable and Judge (1994)</td>
<td>0.757</td>
</tr>
<tr>
<td>7.</td>
<td>Tolerance for ambiguity scale</td>
<td>Gupta and Govindarajan (1984)</td>
<td>0.667</td>
</tr>
<tr>
<td>8.</td>
<td>Coping with organizational change</td>
<td>Judge and Vladimir (1998)</td>
<td>0.623</td>
</tr>
<tr>
<td>9.</td>
<td>Organizational Commitment Questionnaire</td>
<td>Mowday, Steers, and Porter, 1979</td>
<td>0.857</td>
</tr>
<tr>
<td>10.</td>
<td>Job Satisfaction Scale</td>
<td>Judge, Locke, Durham, and Kluger (1998)</td>
<td>0.838</td>
</tr>
</tbody>
</table>
The above self-report survey tools formed a part of a comprehensive questionnaire a copy of which is presented as Appendix I.

3.11 DESCRIPTION OF THE TOOLS USED

3.11.1 THE PERSONAL DATA SHEET

The questionnaire was designed as a booklet with the first page containing the details about the research along with informed consent form (Appendix-I). The booklet had 100 items on the whole. All the items were objective in nature and required only tick marking or circling. The personal data sheet consisted of items to know the demographic details of the respondents such as name of the organization, age, gender, job level, years of experience, and educational qualification.

3.11.2 SELF-ESTEEM (ROSENBERG SELF-ESTEEM SCALE REVALIDATED BY NAPPINNAI AND SWAMINATHAN, 2006)

It is a 10-item scale that measures global self-worth by assessing both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are to be answered using a 4-point Likert scale format ranging from Strongly agree – 3; Agree – 2; Disagree – 1; Strongly disagree – 0.

RELIABILITY AND VALIDITY

The scale generally has high reliability: test-retest correlations are typically in the range of .82 to .88, and Cronbach's alpha for various samples are in the range of .77 to .88 (Blascovich & Tomaka, 1993; Rosenberg, 1986). Factor analysis of the 10 RSE items suggested a single general factor (Gray-Little, Williams, & Hancock, 1997)
SCORING

Scoring was done as per the instruction given in the manual. Items 2, 5, 6, 8 & 9 were reverse scored. The composite score calculated by summing of all the ten items. Minimum score was 0 and maximum score was 30. Higher the score, higher the self-esteem

RATIONALE FOR USING THE TOOL

The Rosenberg Self-Esteem Scale is a widely used self-report instrument for evaluating individual self-esteem, was investigated using item response theory. Factor analysis identified a single common factor, contrary to some previous studies that extracted separate Self-Confidence and Self-Depreciation factors. Also this is the simplest tool for administration. Hence in the present study this particular tool is used.

3.11.3 CHANGE SELF-EFFICACY (ASHFORD’S CHANGE SELF-EFFICACY SCALE, 1988)

A four item scale is used to measure the upcoming transition. It is a uni-dimensional scale. All items are answered using a 5-point Likert scale format ranging from Strongly agree – 5; Agree – 4; Neutral – 3; Disagree – 2; Strongly disagree – 1

RELIABILITY AND VALIDITY

The alpha coefficient of the scale was found to be .67 in the research work done by Ashford (1988). Content validity was established by the author. In the present study the reliability was found to be 0.69.
SCORING

Scoring was done as per the instructions given by the author. Items 2 & 3 were reverse scored, the composite score calculated by summing of all the four items. Minimum score was 4 and maximum was 20. Higher the score, higher the change self-efficacy.

RATIONALE FOR USING THE TOOL

Bandura (1977) has argued that self-efficacy must not be measured in terms of generalized feelings of mastery, but rather in reference to handling a specific situation or performing specific behaviour. The present study is done with reference to change. Hence the efficacy has to be measured in handling the change situation. Hence this tool was used in this study to assess change related self-efficacy.

3.11.4 INTERNAL LOCUS OF CONTROL (LEVENSON’S LOCUS OF CONTROL, 1981)

Each of the dimensions Internal, Powerful Others, and Chance scales consists of eight items in a Likert format which is represented to the subject as a unified attitude scale of 24 items. For the present study, only the internal scale which had eight items was used. The Internal scale measured the extent to which a person believes he has control over his own life (e.g., “When I make plans, I am almost certain to make them work”). Likert 6-point scale from Strongly agree – 6; Somewhat agree – 5; Slightly agree – 4; Slightly disagree – 3; Somewhat disagree – 2; Strongly disagree – 1 was used.
RELIABILITY AND VALIDITY

Split-half reliabilities (Spearman-Brown) for an adult sample are all in the mid.60's. Student test-retest reliabilities for a one-week period are in the.60's and .70's (Levenson, 1973). Validity of the tool was established by correlating with Rotter’s I-E tool. 24 items were subjected to a principle component factor analysis. The first three factors to emerge were I, P, and C accounting for 60% of the total variance.

SCORING

Eight internal items were scored as per the norms given in the manual. Item number 3 and 4 were reverse scored. The composite score calculated by summing of all the eight items. Maximum possible score for the scale was 48 and minimum was 6.

RATIONALE FOR USING THE TOOL

Levenson’s tool measures three scales Internal (I), Powerful others(P) and chance (C). The rationale behind differentiating two types of externals stemmed from the reasoning that people who believe the world is unordered would behave and think differently from people who believe the world is ordered but that powerful others are in control. Compared to other tools segregating internality dimension was found to be easy in this tool. Hence in the present study to measure internal locus of control it was found most suitable.
3.11.5 OPTIMISM - REVISED LIFE ORIENTATION TEST (LOT-R) (SCHIEIER, CARVER & BRIDGES, 1994)

The original consisted of 12 items. The revised scale was constructed in order to eliminate two items from the original scale which dealt more with coping style than with positive expectations for future outcome. The response is in 5 point Likert scale from Strongly agree – 4; Agree – 3; Neutral – 2; Disagree – 1; Strongly disagree – 0.

RELIABILITY AND VALIDITY

The correlation between original scale and revised scale is 0.95. Cronbach’s alpha is estimated at 0.82 (Scheier, & Craver, 1985). Test-retest reliability is 0.79 over 4 weeks (Smith, Pope, Rhodewalt, & Poulton, 1989). Scheier and Carver (1985) found that the scale correlated negatively with depression (-.49), perceived stress (-.55), hopelessness (-.47).

SCORING

Scoring was done as per the instructions given in the manual. The composite score was calculated by summing of the score for the items 1,3,4,7,9,10 to obtain overall score. Items 3,7,9 were reversely scored. Items 2,5,6,8 were filler items. Minimum score was 4 and maximum was 24.

RATIONALE FOR USING THE TOOL

This is the most widely used self-report measure of dispositional optimism which is defined as an individual’s tendency to view world and the future in positive ways. LOT-R is developed to assess individual difference in generalized optimism and
pessimism. Wanberg and Banas (2000) used the LOT scale for their change related study. Many other researchers also have used the same tool in their study especially change related studies. Many researches done on the impact of positive employees on organizational change included optimism as one of the variable. Hence for the present study this tool was used.

3.11.6 NEO FFI (COSTA & MCCREA 1992)

The NEO FFI is a 60-item version of Form S of the NEO PI-R that provides brief, comprehensive measures of the five domains of personality. It consists of a 12-item scale that measures each domain. The NEO PI-R (Form-S) is a self-report questionnaire and is the most widely used source of personality data. For the present study items measuring neuroticism and openness to experience were taken. The items were rated on a four-point Likert ranging from Strongly Disagree-0; Disagree-1; Neutral-2; Agree-3; Strongly Agree-4.

RELIABILITY AND VALIDITY

The internal consistencies for the individual facets scale ranged from .86 to .92 for the normative sample of men and women. In the NEO PI-R, content validity was addressed by identifying six distinct facets sample to each domain, and by selecting non-redundant items to measure each facet. Five familiar factors emerged during factor analysis and these showed strong evidence of convergent and discriminant validity with NEO-PI factors.
SCORING

The NEO PI-R (Form-S) consisted of 60 items.

The items in each dimension were as follows:

Neuroticism: 1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, 56

Openness: 3, 8, 13, 18, 23, 28, 33, 38, 43, 48, 53, 58

Reverse scoring was done for the following items:

1, 3, 8, 16, 18, 23, 31, 33, 38, 46, and 54. After reverse scoring the items on the selected dimension, the items were added for each dimension. Maximum possible score for each dimension was 48 and minimum was 0.

RATIONALE FOR USING THE TOOL

Personality traits and other individual difference have a long history in organizational behaviour. Personality was found to be related with many job attitudes such as job satisfaction, organizational commitment etc. One of the widely used tool to assess personality is NEO FFI developed by McCrae & Costa (1992). The NEO is the most widely used measure of the Big Five personality characteristics, and there is substantial evidence exists for the stability and validity of the NEO (Judge et.al, 1999). In many change related studies also the same tool was used. Hence to measure neuroticism and openness to experience in the present study, NEO was used.

3.11.7 RISK AVERSION SCALE (CABLE & JUDGE, 1994)

It is an 8 item uni-dimensional scale measures individual’s aversion towards taking risk. The response is in 5 point likert scale ranging from Strongly agree – 5; Agree – 4;
Neutral – 3; Disagree – 2; Strongly disagree – 1. Risk aversion scale was originally developed by Slovic (1972) with four items. (e.g., "I am not willing to take risks when choosing a job or a company to work for"). This four-item scale was combined with two risk aversion items developed by Drankoski and Judge (1992) (e.g., "I view risk of a job as a situation to be avoided at all costs"). And finally the present tool consists of 8 items was developed by Cable and Judge (1994).

**RELIABILITY AND VALIDITY**

The measure has exhibited high reliability in organizational research (Gomez-Mejia & Balkin, 1989). The resulting internal consistency estimate of this six-item scale was .72. The reliability of the eight-item scale was .76. Validity of the tool was established by correlating with other measures like anxiety and coping. Research has identified a positive correlation between the perception of risk and various measures of anxiety (Schaninger, 1976).

**SCORING**

Scoring was done as per the instructions given by the authors. The composite score calculated by summing up the scores obtained for all the items. Minimum score was 7 and maximum was 35. Higher the score, higher the risk aversion. There was no reverse scoring. Item number 5 was filler item.

**RATIONALE FOR USING THE TOOL**

Risk behaviour is defined as the actual behaviour of people when facing a risk situation. Research into the attitude people hold towards taking or avoiding risks
mostly evolved in three contexts: decision processes, social psychology, and personality models. In the present study risk behaviour is considered as the individual factor especially during change situation. The tool used in the present study was found to most useful as it has already been used in change related research (Judge et.al, 1999). Also it has been used in the research dealt with organizational psychology.

3.11.8 TOLERANCE FOR AMBIGUITY (GUPTA & GOVINDARAJAN, 1984)

Four item scale developed by Gupta and Govindarajan (1984) (e.g The most interesting life is to live under rapidly changing conditions) which was adapted from seven item scale developed by Lorsch and Morse (1974) measures tolerance for ambiguity. The response is in 5 point likert scale ranging from Strongly agree – 5; Agree – 4; Neutral – 3; Disagree – 2; Strongly disagree – 1.

RELIABILITY AND VALIDITY

Gupta and Govindarajan (1985) found internal consistency reliability to be 0.57. Caligiuri and Tarique, (2012) established validity for the tool by correlating with cross cultural experiences over a sample of 641 managers. TA correlated positively with non-work cross-cultural experiences (r = 0.28, p < 0.01). TA correlated positively with “organization- initiated” cross cultural experiences(r = 0.06, p < 0.01). TA correlated positively with dynamic cross-cultural competencies (R^2 = 0.26, p < 0.01).
SCORING
Scoring was done as per the instructions given in the manual. The composite score calculated by summing of all the items. Higher the score, higher the tolerance for ambiguity. Items no. 2 and 4 were scored reversely. Maximum score was 20 and minimum score was 4.

RATIONALE FOR USING THE TOOL
Although Budner's (1962) scale is one of the better known and more widely used measures of tolerance for ambiguity (Furnham, 1994), reliability estimates for the measure tend to be inconsistent. This scale is most prominent in business journals and has been modified a number of times in order to fit more appropriately with researchers’ needs (Westerberg, Singh & Häckner, 1997; Acedo & Jones, 2007; Gurel, Altinay & Daniele, 2010; Caligiuri & Tarique, 2012). Among others, Gupta and Govindarajan (1984) reduced the number of items to four. Hence in the present study this tool was used which was found to be more suitable.

3.11.9 COPING WITH ORGANIZATIONAL CHANGE (JUDGE & VLADIMIR, 1998)
A 12-item scale, labelled the Coping with Organizational Change Scale developed by Judge and Vladimir (1998) measures coping with change by considering both reactance to change and leading change. All the 12 items assess single factor coping with change. The response is in 5 point Likert scaling ranging from Strongly agree – 5; Agree – 4; Neutral – 3; Disagree – 2; Strongly disagree – 1.
RELIABILITY AND VALIDITY

The original principal-components analysis suggested that the 12-items loaded on a single dimension, estimated a confirmatory factor analysis to assess goodness of fit. Using confirmatory factor analysis, the 12 items were again loaded on a single factor. LISREL results indicated that the single factor solution fit the data well, both for self-reports, $\chi^2(54, N = 514) = 158.64, p < .01$; goodness-of-fit index = .93; comparative fit index = .94, and for the independent assessments, $\chi^2(54, N = 514) = 196.65, p < .01$; goodness-of-fit index = .94; comparative fit index = .91. The reliability of this scale was .77 for self-reports and .79 for the independent assessment.

SCORING

Scoring was done as per the instructions given by the authors. The composite score was calculated by summing of all the items. Higher the score higher the coping. Items no. 3, 4, and 7 were scored reversely. Minimum score was 12 and maximum possible score was 60.

RATIONALE FOR USING THE TOOL

Many tools which measures employees coping has been developed based on stress coping. In the psychology literature no measure of coping with organizational change was actually found. The tool developed by Judge and Vladimir (1998) is the only tool available which assess the coping with respect to organizational change. Hence the present tool was the most suited tool for the research.
3.11.10 ORGANIZATIONAL COMMITMENT (MOWDAY, STEERS, & PORTER, 1979)

It is 15 item uni-dimensional scale measures organizational commitment. The response is in 5 point likert scale ranging from Strongly agree – 5; Agree – 4; Neutral – 3; Disagree – 2; Strongly disagree – 1. The measure was created with commitment being generally affective reaction to the organization rather than specifically to work (e.g. I am proud to tell others that I am part of this organization).

RELIABILITY AND VALIDITY

The Cronbach’s Alpha values lie between .82 and 93 (Mowday et al., 1992). In addition, Lam (1998) found a retest reliability of .59 over a period of 10 weeks. Maier and Woschée (2002) proved the construct validity of the OCQ with the help of a confirmatory factor analysis by showing that the OCQ represents a construct that can be empirically distinguished from other work attitudes (job satisfaction and job involvement).

SCORING

Scoring was done as per the instructions given in the manual. The composite score was calculated by summing of all the items. Higher the score higher the commitment towards organization. Items no. 3,7,9, 11,12 and 15 were scored reversely. Maximum possible score was 75 and minimum was 15.
RATIONALE FOR USING THE TOOL

The extent to which employees feel attached to their organization correlates significantly with important variables of performance-related behaviour. The present tool examines affective reaction to the organization rather than specific to work. Also in many organizational researches the tool is widely used. Especially during the process of change in organization, the extent which the employees attached to organization is important to cope with stress (due to change). Hence the particular tool found to be more suited.

3.11.11 JOB SATISFACTION SCALE (JUDGE, LOCKE, DURHAM, & KLUGER 1998)

A 5 item scale developed by judge et.al., (1998) indicates the most descriptive in the current job. It measures the individual feeling about their job. The present tool was adapted from Brayfield and Rothe’s (1951) job satisfaction scale. The response format is 7 point likert’s scale ranging from 1 = Strongly Disagree; 2 = Disagree; 3 = Slightly Disagree; 4 = Neither Agree Nor Disagree; 5 = Slightly Agree; 6 = Agree; 7 = Strongly Agree.

RELIABILITY AND VALIDITY

The five items was taken from Brayfield and Rothe’s (1951) scale (e.g. I feel fairly well satisfied with my present job). Judge et.al (1998) found reliability with a independent sample (N=222) to be 0.88. Validity of the tool was established by correlating with composite measure of the facets of Job Descriptive Index (Smith,
Kendall & Hulin, 1969) and the value was found to be 0.89. The average correlation between the self and significant other reports, corrected for unreliability $r = 0.68$.

**SCORING**

Scoring was done as per the instructions. Item no. 3 and 5 were scored reversely. The composite score was calculated by summing of all the items. Higher the score higher the job satisfaction. Maximum score was 25 and minimum score was 5.

**RATIONALE FOR USING THE TOOL**

Many organizational factors such as pay, work environment, task, and culture influence job satisfaction of the employee. The present study aimed at finding out whether successful coping with organizational change is related to job satisfaction. Hence overall job satisfaction has to be measured. The various other measures of job satisfaction consider motivating factors that influence job satisfaction. The present tool measures overall job satisfaction which exactly assesses the feeling of the individual towards job. Hence this is the apt tool which is most suited for the present study. Also this tool has been widely used in organizational research.

**3.12 RESPONSE CATEGORY FOR ALL ITEMS**

The scales used in the present study was originally developed using various response formats. For example, one measure was developed with a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree), another measure used a 4-point scale ranging from 1 (strongly agree) to 4 (strongly disagree), and one measure used a 6-point scale ranging from —3 (strongly disagree) to +3 (strongly agree) with no middle anchor. In
order to avoid confusion to the respondents, all measures was changed into a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Research has suggested that these sorts of relatively minor alterations to questionnaire response formats do not affect their validity (Matell & Jacoby, 1971).

3.13 PROCEDURE FOR ADMINISTRATION

Before administering the instrument, the participants were seated comfortably and a rapport was established. The following instructions were given to the respondents: “please read each statement and decide which one of the possible responses best describes you”. Using the scale below as guide tick beside each statement to indicate how much you agree with it. 5 – strongly agree; 4 – agree; 3 – neutral; 2 – disagree ; 1 – strongly disagree. If the statement does not apply to you, respond in such a way that will give the best indicator of how you would be possibly feel, think or act. There are no right or wrong answers and no good or bad choices. Answer openly and honestly by indicating how you actually are and not how you would like to be or how you would like to be seen. There is no time limit, but work quickly and make sure that you consider and respond to every statement.

3.14 ETHICAL CONSIDERATION

The participation in the study was voluntary and participants’ confidentiality was guaranteed. All respondents had been thanked in advance while distributing the questionnaire. However, the investigator once again thanked all the respondents who filled the questionnaires, personally and through e mail/telephone appreciating the interest and co operation exhibited toward the study. In some cases the respondents
had extracted a promise out of the researcher to appraise them of the results of the evaluated questionnaire. This aspect was taken care of after the compilation of the result. After the evaluation, the investigator appraised most of the participants of the results of their individual questionnaires during the subsequent visit to their organization or through e-mail. The feedback seemed to provide the managers with an intangible yet intrinsic reward of self-discovery and personal development. This action by the investigator fulfilled an important ethical requirement to research to a large extent as most respondents benefitted in their personal capacity from the entire exercise with enhanced self-awareness and knowledge about the individual factors which help them in coping or does not help in coping.

Details of the statistical analysis of the data collected in the pilot study and main study are presented and discussed in the next chapter.