3.1 Rationale for the study

Managerial Performance (MP) is widely regarded as a key source of organizational performance in Organisational Behaviour and Human Resource Management literature. Oh & Berry (2009) had defined Managerial performance as those managerial behaviours believed to be optimal for identifying, assimilating and utilizing resources including human resources, toward sustaining the organizational unit for which a manager has responsibility. The twenty first century organisations require managers to focus on all aspects of their performance dimensions as the changing economic environment give premium for multi-faceted talent among the managers.
A review of the various dimensions of individual performance in organizations, brings us to the different facets of performance in management theory such as Organisational Citizenship Behaviour (OCB) or Contextual Behaviour, In-Role Behaviour (IRB), Innovative Work Behaviour(IWB) etc (Organ & Ryan, 1995; Podsakoff et al.,2000 ; Spreitzer, 1995). Each of these approaches has its own merits in understanding individual performance, but should not be considered as a conclusive method sufficient for making organizational decisions. Therefore, it is prudent from both theoretical and practical perspective to regard them as not being mutually exclusive, but as potentially complementary. This leads us to capture performance of managers from a multidimensional perspective to arrive at a comprehensive understanding of the dynamics of managerial performance in modern organisations.

This study examines Managerial Performance both in terms of the effectiveness with which employees carry out their formally prescribed job responsibilities (in-role behaviour or task performance) as well as their willingness to go above and beyond the call of duty (their OCB). Along with these measures of performance, in order to capture the extent to which the managers realistically adapt with the changing environment, this study measures work behaviours such as idea generation, idea promotion and idea realisation by assessing Innovative Work Behaviour.

The emerging economic environment in India is very volatile and the changes happening are unpredictable and unprecedented in every sense. This study is conceptualized in the backdrop of this emerging scenario in India and it tries to find out the relevance of creating an environment in organizations that is conducive for the managers to experience positive
attitudes at work and in turn bring out excellence in performance. For many years, social exchange theory (Blau, 1964) is applied to investigate and explain a variety of organizationally desired work attitudes, and behavioural outcomes (Wayne, Shore, & Liden, 1997). It is argued that the employment relationship allows the employee to acquire valuable resources, which include material goods such as pay and fringe benefits; and social goods such as approval, trust, and prestige. After receiving the benefits, the norm of reciprocity requires employees to repay the party who provided them those benefits with their performance in the organization (Gouldner, 1960). Therefore, there is a need for research directed toward identifying the organizational factors that best promote positive employee attitudes and behaviour, and positive organizational performance. Since organizations invest significant effort and resources to attract, select and retain conscientious, proactive, engaged and committed employees, it is natural to expect the organisations to provide work environment conducive to sustain the performance coming out of those initiatives.

The survey of literature helped the researcher to identify, iterate and confirm the antecedent variables of the outcome variables identified for studying Managerial Performance. Following the literature review, the study seeks to assess the level of Psychological Empowerment at Work (PEW), extent of Work-Life Balance assessed through Work –Family Conflict (WFC) and Family-Work Conflict (FWC), extent of Psychological Contract Violation (PCV) experienced by individual managers and their Job Attitudes (JA) in terms of Job Satisfaction and Affective Organisational Commitment as antecedent variables of Managerial Performance. This will help to create a comprehensive understanding of the modern organisational dynamics behind the performance of managers.
3.2 Statement of the problem

Understanding the interplay of multidimensional nature of managerial performance is critical for managing and sustaining a performance culture in organisations. Most of the models used in Managerial Performance studies have in common a set of managerial performance behaviours that map onto broader task performance factors (structuring work and getting things done) and contextual performance factors (facilitating the psychological and social contexts of work and getting along with others). These, of course, do not mean that such a two-factor model is the only appropriate model of managerial performance (Oh & Berry, 2009). The post LPG (Liberalisation, Privatisation and Globalisation) period in India unleashed a continuous wave of changes in the internal and external environments in Indian organisations which in turn forced the managers to look at all processes and outputs from different perspectives as a way of their regular life. The challenge of living with change prompts the managers to exhibit innovative work behaviours in their work environment to be relevant to both their internal and external customers. Thus a three dimensional model of managerial behaviour viz., in-role, contextual and innovative behaviour, in the context of the emerging trends in Indian organisations is warranted to ensure a comprehensive view of managerial performance. The fundamental requirement for an organisation to create such an organisational culture is worthwhile to explore from both theoretical and practical perspective.

Even though organisational hierarchy and structure goes through a never ending process of change as a result of conflicting and supplementing
evidences from the practitioners and theoreticians, the division of managers into frontline, middle and top levels continue to be a prominent label accepted across organisations. Top managers are generally considered to be important in determining firm performance, as evidenced by many studies on top management teams (Bertrand & Schoar 2003; Hambrick et al., 1996; Hambrick & Mason, 1984; Lieberson & O’Connor, 1972; Wiersema & Bantel, 1992). Unlike top level managers, middle level managers are more constrained by existing organizational context and variation among mid-level managers can affect their subordinates at the wider scale of organizational performance. Mollick (2011) in his study found that variation among middle managers’ performance has a particularly large impact on firm performance, much larger than that of those individuals who are assigned innovative roles. The results of his study also showed that performance of middle level managers is necessary to facilitate firm performance in industries. Taking into account all these factors, it is evident that in every organisation, the roles of middle level managers who are sandwiched between the top and frontline managers are critical for the overall performance of organisations. When their performance is not up to the mark, the top management will not be able to translate their strategies into actions and the lower level managers will not be able to achieve the operational efficiencies leading to poor overall organisational performance. This has prompted the researcher to focus the study on the middle level managers in organisations.

In this context, the present research attempts to answer the following questions: Do organizations which provide a conducive environment for their employees as part of a well thought out strategic initiative stand to gain in terms of higher levels of overall managerial performance? What are
the underlying intervening processes involved in the relationship between the outcome variable namely Managerial Performance and the selected antecedent variables? Will there be any difference observable in this relationship among the managers belonging to manufacturing and service sectors?

By bringing down the number of variables that are part of the list of antecedent variables of managerial performance to a manageable and significant few through the Focused Group Discussion, the study focuses on the impact of Psychological Empowerment at Work, Work Life Balance, Job Satisfaction, Affective Organisational Commitment and Psychological Contract Violation on Managerial Performance. The need was felt to develop an integrated model linking all these variables and in this context, the study is being conducted among middle level managers working with leading private sector manufacturing and service organizations in Kerala.

3.3 Objectives

Based on the review of literature and conceptual model described in the previous chapter, following research objectives are framed, as given under:

3.3.1 Major objective

To study and explain the relationship between Managerial Performance and selected antecedent variables among the middle level managers of Private Sector organisations in Kerala.

3.3.2 Specific objectives
a) To study and explain the relationship between the demographic variables namely Gender, Age, Educational Qualification, Marital Status, Working status of spouse and Dependent Children at home and antecedents variables of Managerial Performance namely Job Satisfaction, Affective Organisational Commitment, Psychological Contract Violation, Psychological Empowerment at Work, and Work-Life Balance.

b) To ascertain the relationship between Managerial performance and selected antecedent variables namely Psychological Contract Violation, Psychological Empowerment at Work, Job Satisfaction, Affective Organisational Commitment and Work-Life Balance.

c) To develop and statistically validate a model linking Managerial Performance and the selected antecedent variables among the managers of service and manufacturing sectors.

d) To study and explain the difference if any, in the statistical models linking Managerial Performance and the selected antecedent variables, on account of the managers’ affiliation to service and manufacturing sectors.

3.4 Research Hypotheses

Based on the literature review the researcher formulated the following hypotheses on the anticipated relationship among the variables in the study. The hypotheses relates to employee population confined to middle level managers of private sector organisations in Kerala.

H1: There is significant difference in Psychological Empowerment at Work, Work-Life Balance and Psychological Contract Violation.
across the organization type, gender, age, educational qualification, marital status and working status of spouse.

H2: Psychological Empowerment at Work will be positively related to Managerial Performance.

H3: Higher the Job satisfaction, higher will be Managerial Performance.

H4: Higher the Affective Organisational Commitment, higher will be Managerial Performance.

H5: Work-Life Balance will be positively related to Managerial Performance.

H6: Psychological Contract Violation will be negatively related to Managerial Performance.

3.5 Definitions

3.5.1 Managerial Performance (Theoretical Definition)

Managerial performance is defined as “managerial behaviours believed to be optimal for identifying, assimilating and utilizing resources (including human resources) toward sustaining the organizational unit for which a manager has responsibility” (Oh et al., 2009).

Operationally

Managerial performance is operationally defined as a combination of Organisational citizenship behaviour (Van Scotter & Mottowidlo, 1996), In-role behaviour (Williams & Anderson, 1991) and Innovative work behaviour (Janssen, 2001) exhibited by managers in their respective work environments.

3.5.2 Organisational Citizenship Behaviour (Theoretical Definition)
OCB may be defined as “individual behaviour that is discretionary, not directly related or explicitly recognised by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization” (Organ et al., 2006)

**Operationally**

OCB is operationally defined by Van Scotter & Mottowidlo (1996) as a combination of behaviours exhibited by managers namely Interpersonal Facilitation and Job Dedication. Interpersonal Facilitation consists of interpersonally oriented behaviours that contribute to organizational goal accomplishment. Interpersonal facilitation encompasses deliberate acts that improve morale, encourage cooperation, remove barriers to performance or help co-workers perform their task oriented job activities. Job Dedication centers on self-disciplined behaviours such as following rules, working hard, and taking the initiative to solve a problem at work.

**3.5.3 In-role Behaviour (Theoretical Definition)**

In-role behaviours are defined as being part of one’s job and are recognized by the organization’s formal reward systems (Katz & Kahn, 1978). It can be viewed as an activity in which an individual is able to accomplish successfully the task assigned to him or her, subject to the normal constraints of the reasonable utilisation of available resources.

**Operationally**

Williams and Anderson (1991) defined In-role behaviour as adequately completing the assigned duties, fulfilling responsibilities specified in Job descriptions, meeting formal requirements of the job and
engaging in activities that will directly affect the respective managers performance evaluation in a positive way.

3.3.4 Innovative Work Behaviour (Theoretical Definition)

Innovative Work Behaviour is defined as the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group or the organization (Janssen, 2000).

**Operationally**

Janssen (2001) defined Innovative Work Behaviour as a combination of engaging in idea generation, idea promotion and idea realisation in their respective work environments.

3.3.5 Job Attitude (Theoretical Definition)

Job attitude is defined as a fundamental evaluation of one’s job experiences (Harrison et al. 2006).

**Operationally**

Job attitude is operationally defined as a combination of Job Satisfaction (Bacharach et al.1991) and Affective Organisational Commitment (Meyer & Allen, 1991).

3.5.6 Job Satisfaction (Theoretical Definition)

Job satisfaction is generally defined as an employee’s affective reactions to a job based on comparing actual outcomes with desired outcomes (Cranny, Smith & Stone, 1992).

**Operationally**

School of Management Studies, CUSAT
Bacharach, Bamberger, and Conley (1991) defined Job satisfaction as the degree of agreement between, the perceived quality of broad aspects of a job such as their present job in comparison with other jobs in the organisation, the progress they make towards the goals they set for themselves in the present position, the chances available for doing what they are best at and their job in the light of their career expectations.

### 3.5.7 Affective Organisational Commitment (Theoretical Definition)

Affective organisational commitment is defined as the strength of a person to continue working for an organisation because he or she agrees with it and want to do so (Meyer & Allen, 1991).

**Operationally**

Meyer and Allen (1991) defined affective commitment as the employee’s emotional attachment to, identification with, and involvement with the organisation.

### 3.5.8 Work-Life Balance (Theoretical Definition)

Work-Life Balance is defined as a state where an individual manages real or potential conflict between different demands on his or her time and energy in a way that satisfies his or her needs for well-being and self-fulfilment. (Clutterbuck, 2004)

**Operationally**

Netmeyer et al. (1996) operationally defined Work-Life Balance as a situation in which the individual experience less of work-family conflict and less of family-work conflict.

### 3.5.9 Work-Family Conflict (Theoretical Definition)
Work-Family conflict is defined as a form of inter role conflict in which the role pressure from the work and family domains are mutually incompatible and the demands of participation in one role make participation in the other role more difficult (Aryee, Luk & Stone 1998)

**Operationally**

Netmeyer, Boles & McMurrian (1996) defined work-family conflict as a situation experienced by an individual where the demands of work interfere with family life, the time taken by the job making it difficult to fulfil family responsibilities and also the individual finding it difficult to plan and schedule family activities.

### 3.5.10 Family-Work Conflict (Theoretical Definition)

Family-Work conflict is defined as a form of inter role conflict in which the role pressure from the family and work domains are mutually incompatible and the demands of participation in one role make participation in the other role more difficult (Aryee, Luk & Stone 1998)

**Operationally**

Netmeyer, Boles & McMurrian (1996) defined family-work conflict as a situation experienced by an individual, where the demands of the family or spouse/partner interfere with work related activities, his or her work get delayed because of demands from family and, family life interfering in accomplishing daily tasks and thereby forced to work overtime.

### 3.5.11 Psychological Contract Violation (Theoretical Definition)

The perception of a broken promise is referred to as a breach of psychological contract and the circumstances associated with this breach
may elicit a negative emotional reaction to the breach which will be referred to as a psychological contract violation (Morrison & Robinson, 1997).

**Operationally**

Knights and Kennedy (2005) defined psychological contract violation as a situation in which the organisation is not able to fulfil its promises in relational aspects of psychological contract violation such as employee involvement in management of change, work style or reputation of organisation and degree of job security and transactional aspects of psychological contract violation such as performance management, promotion, compensation and benefits, nature of job and opportunities for responsibility.

**3.5.12 Psychological Empowerment at Work (Theoretical Definition)**

Psychological empowerment refers to how employees view themselves in the work environment and the extent to which they feel capable for shaping their role in the work (Spreitzer, 1995).

**Operationally**

Spreitzer (1995) defines psychological empowerment as opportunities available to managers in their work environment to experience meaningfulness in their work, feeling of being competent, capable of self-determination and having an impact in their respective departments.

**3.5.13 Middle Level Manager (Theoretical Definition)**

A manager who supervises first-level managers within a specified area and is responsible for the people and activities within those areas;
generally acts as liaison between first-level and upper-level management. (Mollick, 2011)

**Operationally**

A manager who reports directly to a department head or vertical head and also supervises the front line executives or supervisors as the case may be depending on the titles used in their respective organisations.

### 3.6 Basic Research Design

The present study is descriptive cum explanatory in nature. The study is considered as descriptive in nature as it describe the distribution of the employee perception for influence of different antecedent and mediating variables on Managerial Performance. Further the data were used to achieve the most appropriate fit among the factors of the independent and dependent variables using Structural Equation Modelling (SEM) and is thus explanatory in character.

### 3.7 Tools of Data Collection

#### 3.7.1 Organisational Citizenship Behaviour

The tool was developed by Van Scotter and Mottowidlo (1996) to measure two dimensions (Job dedication and interpersonal facilitation) through fifteen items and uses a five point scale. The reliability cronbach’s alpha score of the original scale was .95.

#### 3.7.2 In-role Behaviour

The tool was developed by Williams & Anderson (1991) to measure a single dimension through seven items and uses a five point scale. The reliability cronbach’s alpha score of the original scale was .88

#### 3.7.3 Innovative Work Behaviour
The tool was developed by Janssen (2004) to measure three dimensions (idea generation, idea promotion and idea realization) through nine items and uses a five point scale. The reliability cronbach’s alpha score of the original scale was .98.

### 3.7.4 Job Satisfaction

The tool was developed by Bacharach, Bamberger, and Conley (1991) to measure single dimension through five items and uses a four point scale. The reliability cronbach’s alpha score of the original scale was .88.

### 3.7.5 Affective Organisational Commitment

The tool was developed by Meyer and Allen (1997) and measures the variable through six items and uses a four point scale. The reliability cronbach’s alpha score of the original scale was 0.81.

### 3.7.6 Work-Life Balance

The tool was developed by Netmeyer et al., (1996) to measure two dimensions (work-family conflict and family-work conflict) through ten items and used a seven point scale. The reliability cronbach’s alpha score of the original work-family conflict scale was 0.88 and family-work conflict was .89.

### 3.7.7 Psychological Contract Violation

The tool is developed by Knights and Kennedy(2005) to measure two dimensions (Transactional contract violation and Relational contract violation) through nine items and used a five point scale. The reliability cronbach’s alpha score of the original scale was .84.

### 3.7.8 Psychological Empowerment at Work
The tool was developed by Spreitzer (1995) to measure four dimensions (Meaning, Competence, Self-Determination and Impact) through twelve items and used a seven point scale. The reliability cronbach’s alpha score of the original scale was .85.

3.8 Reliability and validity analysis

In the validation process of the research survey instruments, there are two basic validities, namely content and construct that can be assessed to get the uniqueness of the measures. Content validity is the subjective assessment of the measures affiliated with the face validity for informal as well as commonsense evaluation of the scales and measures by expert judges (Arino, 2003; Hardesty & Bearden, 2004). As both convergent and discriminant coefficients are used to support or refute a claim of construct validity, these are assessed and discussed in this section. Convergent validity refers to “the extent to which the scale correlates positively with other measures of the same construct” and “discriminant validity is the extent to which a measure does not correlate with other constructs from which it is supposed to differ” (Malhotra & Dash, 2002). Towards assessing convergent and discriminant validity, inter-item correlations, standardised item alpha, correlation coefficients and measurement of constructs in confirmatory factor analysis (CFA) along with standardized loading should be reviewed and discussed. In order to demonstrate convergent validity, inter-item correlations revealed that all retained items (in CFA) in respective measures are positively correlated with moderate to high coefficients. Further, CFA findings strongly indicated that all construct measures were unidimensional which suggested that the construct measures achieved not only convergent validity but also discriminant validity. In order to assess discriminant validity, Gaski (1984) also
recommended that the correlations among composite constructs must be lower than the respective standardised composite reliabilities. Considering this approach, composite reliability scores were compared to the construct correlations and it was found that no correlation coefficient exceeded 0.90. Where the lowest composite reliability score was 0.74. These lows to moderate level of correlations between the variables are normally expected but these levels of correlations satisfy discriminant validity of the measures indicating the measurement scales’ ability to discriminate between measures that are supposed to differ (Campbell & Fiske, 1959).

Reliability of an instrument is the degree to which it yields a true score of the variable under consideration. It is defined as the extent to which any measuring instrument yields the same result on repeated trials (Carmines & Zeller, 1991). An instrument is not considered to the extent to which it contains measurement error (Neale & Liebert, 1986).

There are several methods to establish the reliability of a measuring instrument. These include test-retest method, equivalent forms, split-halves method and internal consistency method and of all these methods, the internal consistency method is supposed to be the most effective method, especially in field studies. The advantage of this method is that it requires only one administration, and consequently this method is considered to be the most general form of reliability estimation. In this method, reliability is operationalised as ‘internal consistency’, which is the degree of inter-correlation among the items that constitute a scale (Nunnally, 1978).

The internal consistency of a set of items refers to the homogeneity of the items in a particular scale. Internal consistency is estimated using a reliability coefficient called Cronbach’s alpha (Cronbach, 1951). An alpha
value of 0.70 or above is considered to be the criterion for demonstrating strong internal consistency of established scales (Nunnally, 1978).

**The Goodness-of-Fit Index (GFI):** This is one of the most commonly reported measures of model fit. The GFI is a non-statistical measure that ranges in value from 0 (poor fit) to 1 (perfect fit). The higher the GFI, the better the model fit is considered to be. There is no definite value that indicates “good” model fit (Chin & Todd, 1995), although values above 0.90 are usually considered to be favourable to conclude that there is a good fit between the proposed model and the observed data.

**Adjusted Goodness-of-Fit Index (AGFI):** The AGFI is similar to the GFI, but it is adjusted by the ratio of the degrees of freedom for the proposed model to the degrees of freedom for the null. Again, there is no set standard for an acceptable AGFI. In some instances, values of 0.80 or greater are often considered an indication of good fit model (Taylor & Todd, 1995), although values as low as 0.70 have been considered acceptable.

**The Comparative Fit Index (CFI):** This is another measure of overall goodness of fit that uses a Chi-square distribution. The CFI produces a value between 0 and 1, with 1 indicating a perfect fit. As a rule of thumb for this statistic, values of 0.90 or above are considered to indicate a good fit. This is one of the most used measures of unidimensionality of the scale.

**Bentler-Bonett Fit Index (NFI or TLI):** NFI or TLI is a good indicator of the convergent validity of the questionnaire. The scale with TLI values of 0.90 or above is an indication of strong convergent validity (Bentler & Bonett, 1980).
Root Mean Square Residual (RMSR/RMR): The closer the RMR value to 0 for a model being tested, the better the model fit. The RMS residuals are the coefficients which result from taking the square root of the mean of the squared residuals, which are the amounts by which the sample variances and covariance differ from the corresponding estimated variances and covariance, estimated on the assumption that the model is correct.
Table 3.1  Confirmatory Factor Analysis and Cronbach’s alpha values of the variables in the study

<table>
<thead>
<tr>
<th>Variables</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RM</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wok life Balance</td>
<td>.975</td>
<td>.926</td>
<td>.989</td>
<td>.979</td>
<td>.046</td>
<td>0.826</td>
</tr>
<tr>
<td>PEW</td>
<td>.911</td>
<td>.896</td>
<td>.849</td>
<td>.806</td>
<td>.08</td>
<td>0.801</td>
</tr>
<tr>
<td>PCV</td>
<td>.925</td>
<td>.883</td>
<td>.891</td>
<td>.850</td>
<td>.081</td>
<td>0.746</td>
</tr>
<tr>
<td>Job Attitude</td>
<td>.972</td>
<td>.915</td>
<td>.981</td>
<td>.961</td>
<td>.013</td>
<td>0.791</td>
</tr>
<tr>
<td>Managerial Performance</td>
<td>.931</td>
<td>.862</td>
<td>.923</td>
<td>.798</td>
<td>.079</td>
<td>0.849</td>
</tr>
</tbody>
</table>

The values of the critical parameters got from the Confirmatory Factor Analysis done on Wok life Balance, Psychological Empowerment at Work, Psychological Contract Violation, Job Attitude and Managerial performance reveals that the model is acceptable as the values fall within the acceptable ranges.

3.9 Scope of the Study

Unit of observation and analysis: Middle level managers of private sector service and manufacturing organisations in Kerala.

Place of study: State of Kerala, India
Time: June 2011 to February 2012
Source of data: Primary

3.10 Population of the study

Based on the report of Kerala Economic Review (2008) of the State Planning Board, Government of Kerala, total employment in Organised
Private sector is 6 percent compared to 3.4 percent in Public Sector (against the all India total) indicating that private sector is a prominent employer in the state. Discussions with experts in the industry in both private sector and public sector organisations revealed that the various criteria related to the performance assessment and career progression of managers in public and private sector organisations are different. More over the changes that are happening in the global economy are having more significant impact in the way the man management practices are followed in private sector organisations than the public sector. This has prompted the researcher to focus on only one of the sectors for the study. Opinions of Human Resource Management experts from different sectors like industries and academic fields were taken at this stage and it was decided to focus the study on private sector companies representing both service and manufacturing segments.

As per the sector wise annual growth rate of Gross State Domestic Product (GSDP) of Kerala, primary sector contributes 15%, secondary 26.8% and tertiary 58.2%. (Kerala Economic Review 2008). The fastest growing sub sectors among the tertiary sectors in Kerala are Banking and Communication (Nair, 2005). Based on this indications, it was decided to focus the study on new generation banking companies and mobile telecommunication companies for representing private sector service organisations since they were more prone to global and domestic economic changes.

New generation banking companies were identified from the list of banking financial institutions with Reserve bank of India and out of that three banks were identified for the survey. Mobile telecommunication companies are identified from the list of operators from TRAI and out of
the six companies operating in Kerala, three companies were selected for the study.

List of manufacturing companies were taken from the list of member companies from Confederation of Indian Industries, Kerala chapter. Request letters for permission to conduct the survey were sent to all those companies that satisfied the inclusion criteria as discussed below. Finally six companies gave permission to collect data and they were included in the survey.

3.11 Inclusion criteria

Only companies having more than 200 employees were considered for the survey to make sure that there are adequate numbers of middle level managers employed in the participating organisations. Middle level managers who are confirmed in their service are included for the survey to obtain reliable responses based on sufficient organizational experience. Since the study measures individual performance as the outcome variable, using self-reported measure will lead to common method bias as individuals’ tend to inflate their performance in a positive way (Atwater, Ostroff, Yammarino & Fleenor, 1998). In order to overcome this challenge, performance of the middle level managers were assessed on the basis of the report from their respective supervising managers. In this vertical dyad group of managers and their supervisors, a maximum of 5 or 75% (whichever is less) samples were included from each of the departments. This was to ensure accuracy of evaluation.

3.12 Data Source

The primary data were collected from middle level managers and their supervising managers of the companies which participated in the
survey. Secondary data were collected from different sources such as list of companies in banking financial institutions, list of companies in CII Kerala chapter and Kerala Economic Review, 2008.

3.13 Pilot study

A pilot study with forty respondents was conducted to gather information prior to the final study, in order to improve the latter’s quality and efficiency. The pilot study helped to adapt the research tools to the Indian context, and also to find out whether there is significant difference in the level of assessment of Managerial Performance by self-evaluation of respondent middle level managers and their respective supervising managers to finally decide on which method to follow in the final study. Thus the data collected from multiple sources were analysed statistically using t test and the variation was found to be statistically significant. After discussing the result with experts from industry and academics, it was decided to collect data from the supervising managers of the respondent managers, for assessing Managerial Performance.

3.14 Data collection

a) Companies in service and manufacturing sectors were identified from the list of new generation banks operating in Kerala as available from RBI data base, TRAI data base and CII Kerala chapter.

b) All department Heads of each of the participating organisation were approached for their approval in participating in the study. Those HODs who agreed to participate in the study were provided with a list (generated through simple random method) of their subordinates to assess their performance.
c) Each HOD was given a maximum of 5 or 75% (whichever is less) of their subordinates to be evaluated. Simultaneously the subordinate managers were administered with the questionnaire designed for collecting the data on independent variables.

d) The questionnaire survey has been widely acknowledged as an efficient tool for measuring the perceptions of individuals or organisations on a particular subject. The survey research method is very useful to collect data from a large number of firms in a relatively short period of time and with better-cost implications. Hence for the current study, the questionnaire survey has been chosen for data collection.

### 3.15 Sample Size and Sampling Method

Since the study measures individual performance as the outcome variable, using self-reported measures will lead to common method bias as individuals’ tend to overrate their own performance (i.e., rate it more favourably) relative to their supervisors (Atwater et al., 1998; Dobbins, Farh & Werbel , 1993; Shore & Bleicken, 1991; & Williams & Levy, 1992). In order to avoid this challenge; the study assesses outcome measures of performance using data obtained from direct supervisors of respondent managers. For assessing the antecedent variables, the researcher used self-reported measures from the respondent managers.

Having decided the population, in order to select the representative organisations, convenience method was adopted. This method was adopted because from the list of companies available, not all companies were willing to permit data collection from their organisations. Therefore, only companies which permitted the data collection were considered. A total of
12 organisations were taken from both sectors. Proportionate samples of middle level managers from each organisation were randomly chosen based on company wise sample frames.

Sample size was decided based on power analysis and hotelier index through SEM. Through power analysis, an adequate number of samples with an explanatory power of .85 and the F2 value of 0.03 were identified as a minimum of 268. Further, Hotelier’s index Structural equation modelling revealed that the total number of sample size needed for analysis in SEM as 169 (significance level at 0.05). A total of 400 questionnaires were circulated for the survey, out of which 345 questionnaires were collected back. After initial screening, 13 questionnaires were found to be incomplete and they were rejected. The data was tested for outliers through bootstrapping and Boline-shrine method which showed that there were 15 samples that cannot be used for the study. Thus the number of questionnaires finally available for analysis was 317. Finally these 317 usable samples were available for the analysis which supported the requirement of data adequacy in the study.

3.16 Statistical analyses and validation: -

Correlation, Regression, ANOVA test, t-test, Multivariate analysis and Structural Equation Modelling (SEM) using AMOS software were used for statistical analyses of the data and validation of various models. Researcher also tried to test the integrated model for managerial performance using Structural Equation Modelling (SEM) with AMOS 4.0. Subsequent step was to evaluate the degree of fit of several structural models for use in testing the hypotheses concerning relations among underlying latent variables.
3.17 Limitation

As is true of most empirical research, the current research has some limitations. First, the cross-sectional design of the study does not allow for causal inferences because such studies aim at understanding the causal processes that occur at here-and-now time period and, as a result their conclusions are based on observations made at only one time.

Second, due to the dyadic nature of the data collection, some of the organisations approached for data collection were reluctant to participate in the study. This can have a limiting impact on the generalisability of the study to the entire private sector service and manufacturing organisations in Kerala.