3.1 Introduction

The researcher did a study on "transformational leadership style and impact on employee performance in high technology Industry" to understand how the leadership style has an impact on the employee performance by assessing the impact on outcome of leadership and commitment.

3.2 Theoretical framework

Perry et al. (1997) and Healy & Perry (2000) have explained in detail the paradigms and the elements in them. The elements in the research paradigms refer to ontology, epistemology and common methodologies.

Perry et al. (1997) explain the differences between positivism and the phenomenological in three elements: ontology, epistemology and methodologies used. In positivism, reality is real and apprehensible via the senses and reason; findings are true and it is possible to verify hypotheses through observation and testing. By contrast, in phenomenological research, ontology’s are multiple with local and specific “constructed” realities; and findings derive from these differently constructed realities. Research involves a “passionate participant” within the situation being investigated as opposed to positivism which posits a dispassionate neutral observer.

Ontology and Epistemology

Ontology is the study of existence and nature of being and epistemology is the theory of knowledge this helps to study the knowledge in particular to scope, validity and foundation hence ontology and epistemology studies are very important pillars for leaders especially in the high technology industry where leaders need to build on their leadership
style by knowing both ontology and epistemology. Ontology includes the studies that are concerned with space, time, causality and existence which effects on the leadership styles for examples leaders deciding based on their authority without being consultative before making a decision. Leaders who develop their workforce’s through proper training and development are the ones who are most likely to most motivate, develop the commitment. Leaders play a pivotal role in establishing the character and nature of the organization experienced by their employees.

3.3 Research Design

Research design included a details plan that guides the research pertaining to this topic “An Empirical Study of Transformational Leadership Style and Impact on Employee Performance in High Technology Industry” is discussed below. As a researcher I have adopted a post positivist for this study as it fundamentally assumes that the research can incorporate only an estimated representation of reality in this research the measured phenomenon was leadership styles, outcome of leadership and commitment level to the organization. The epistemology method is used in the post-positivist approach as it collect and organizes information of the samples which be measured and observed.

The decisions of the researcher concerning critical factors such as definition of topics, selection of participants, and choice of data collection instruments create a framework for the study influencing the understanding of the phenomenon under investigation. As a result, the findings and conclusions intended to represent reality may not be an accurate or a complete representation of the phenomenon under investigation (Crotty, 2003) the design decision for this study is decided base on the principles of validity and coherence.

As stated above, this investigation took place in dual phases. Qualitative research in the form of content analysis and literature survey was tenured for the first stage. The questionnaire was subsequently formulated from the contents of the literature study and in the second stage of the research; the questionnaire was tested on a sample population
of high technology industry employees to conclude their relation between the leadership styles, outcome of leadership and commitment towards the organization.

### 3.4 Scope of the study

This research is conducted and oriented exclusively for the managers in high technology industry. The study was conducted among the managers in the organization in order to study the impact of leadership style on employee performance.

1. This study will help managers to understand about their self perception of leadership style
2. This study will help the technology industry to know how their managers believe and perceive on their leadership style
3. This study will help managers to realize how their leadership style impacts the outcome of leadership
4. This study will help the organization to know the commitment level of their managers in their organization
5. This study will help the management to know the effectiveness of training programmes.

### 3.5 Objectives of the study

1. To understand and study how the managers perceive their leadership style.
2. To analyze whether there is an impact of leadership style in outcome of leadership
3. To analyze the specific impact of leadership style in specific outcomes of leadership.
4. To analyze whether managers are committed towards the organization
5. To analyze the impact on employee performance and satisfaction
3.6 Research Procedure

The most apt procedure and research methodology for examining the relationship among variables which can be measured and observed is the quantitative methodology hence this descriptive study has used the quantitative technique this research procedure is most appropriate for sequential occurrence with one variable antecedent to another (Creswell, 2009). The depended variable in this study was to measure leadership styles, outcomes of leadership and commitment to analyze the impact on employee performance and satisfaction and the independent variables are demographic variables.

The quantitative method is also apt to test the hypothesis with quantitative findings which can be generalized for larger population. The researcher also used the qualitative methods to investigate the results which have got through the quantitative for investigate and validate there was also a substantial discussed by the researcher with the samples during the process of data collection and analysis to decrease the possibility of biases based on quantitative perception.

In brief the research methodology consist of both qualitative and quantitative data it is coordinated by using both primary and secondary data and information collected by the research scholar under the guidance of the research guide with regard to secondary resources, certain books and periodicals were consulted for the understanding of relevant concepts and theoretical models on transformational leadership. Besides these, the researcher became familiar with the current leadership styles, its impact on employee performance and satisfaction by referring to various literatures made available in tech savvy industries the details of specific references are given in the bibliography.

For generating primary data and information the researcher used a pretested questionnaire as an instrument to gather the information relevant to the topic
3.7 Data Collection

The data is collected by being on the field to ensure realistic study is done the data was collected pertaining to our dependent and independent variable the questionnaire method is used to obtain the required data to ensure the speed, cost and versatility. The researcher used both online and offline procedures to collect data. The two basic distinct parts of the standardized questionnaire were dependent and independent variables based on this the data was collected. The first part measures dependent variable which includes leader style, outcome of leadership and commitment in high technology industries. The second part measures the demographics which include age, gender, qualification and the total experience.

3.8 Population

Sample is a subset of population and the researcher has selected the random sampling method with a 415 samples for the purpose of this study to derive the statistical analysis. The objective of doing 415 samples is to enable the statistical analysis.

In this study, the survey was also carried by personal interviews with the employees to explain the need of survey and to extract the real opinions from them for obtaining desired information, the respondents are chosen on the basis on the level of work they perform.

The objective of sample is to enable the researcher in conclusion derivation by conducting the study to individuals from the population; the results of which will be assimilated in conclusion derivation that will then apply to the entire population. It is much like a give-and-take process. The population “gives” the sample, and then it “takes” conclusions from the results obtained from the sample.
The study empirically examines the relationship between employee commitment and organizational leadership style. Using a sample size of 415 respondents who are all people managers in high technology industries, the selected population has also have a mix of gender and varied experience ranges in tune with stratified random sampling.

3.9 Instruments

The questionnaire consist a group of constructed questions used to father information from the samples and the instrumentation method is the most regarded method for data collection in most of the industry hence we have used the most regarded method in this study. The instrument contains the measurement scaled, open end items, demographic information pertaining to the study (McBurney, 1994:194).

Instrumentation

As per Bass and Avolio’s (2000), MLQ data collection is done by using three survey methodologies and 135 practical queries. According to Casimir et al. (2006), past leadership analysis was done with the help of MLQ. For example it is used to measure transactional leadership and transformational leadership and based on these results the internal consistency get satisfied. Spinelli (2006) stated that since 1980 it is designed to study and measure the leadership styles within the organization. It is provided with all the details of leadership study, so this information is useful for current management study. The researcher has written the questionnaire to cover the leadership styles, their outcomes and commitment together

Casimir et al. (2006) leadership study explored a co-relationship between transformational leadership and transactional leadership i.e. trust and performance are important measuring aspects used to calculate the relation that exist with other dependent variables.
Block (2003) research study outputs using MQL survey states that leadership styles significantly correlates with performance and perceptions of organization culture and these survey reports completely support validity and reliability.

5-point Likert-type scale data collection process used to measure the impact

5 = Strongly Agree, 4 = Agree, 3 = Neither Agree or Disagree, 2 = Disagree, 1 = Strongly Disagree

Correlation coefficient is used to measure the direction and magnitude of the relationship and the statistical values of independent variable and dependent variables are tested. To determine the positive or negative relationship that exists in between leadership styles and commitment.

3.10 Statistical representation

The researcher found that the summary of the analysis in terms of quantitative information generated can be communicated visually by representation of Graphs. Such diagrammatic summarization is exceptionally functional for communicating quantitative information to individuals who may not have an understanding of mathematical forms. In this Research, the statistical representation used were tabulated and exhibited by different types of methods as follows:

1. Tables
2. Figures
3. Pie Charts
4. Line Charts
5. Bar Charts
3.11 Instruments Tested for Reliability

It’s a must to test the instrument for reliability and validity and sustainability of the data, Cronbach’s Alpha is an index of reliability to ensure that the constructed instrument is valid for the study (Cooper & Schindler, 2001:480-499) the internal validity assures the accuracy of the results. External validity is the research design to generalize the findings for the larger population with samples and it also validates and examines the sampling procedures and the setting in which the data is collected (Gliner & Morgan, 2000).

The primary threat for an internal and external validity is the sampling procedure of the research design due to random sampling method the selection of participant may have a potential bias as a result the sample of this population may not be a complete representation of the high technology industry the secondary threat is that whether the response of the instrument is candid and accurate and we cannot give a assurance here it depends upon the individual characteristics of the respondents.

The validity and reliability is tested in this instrument and we found the initial cronbach alpha was 0.668 and value which is above 0.6 is a good values hence the researcher then continued the study with the larger sample of 415 (Muenjohn & Armstrong, 2008). A Cronbach alpha correlation above 0.60 is sufficient to establish reliability for instruments measuring psychometric attributes (Gliner & Morgan, 2000).

3.12 Data Analysis

The data was collected through offline and online survey and it is transferred into a spreadsheet and the data was submitted into the statistical package to do various statistical analyses. The data was analyzed with the following analysis
3.13 Summary of Research Questions, Data Collection, and Analysis

- Hypothesis 1: To what extent managers perceive they have different style of leadership
- Hypothesis 2: Relationships Among the Three Leadership Styles
- Hypothesis 3: Positive relationships between leadership styles and Commitment
- Hypothesis 4: Positive relationships between the leadership styles and outcomes of leadership
- Hypothesis 5: Gender Impact on Leadership Styles, Outcome and Commitment
- Hypothesis 6: Managers Age Impact on Leadership Styles, Outcome and Commitment
- Hypothesis 7: Managers Experience Impact on Leadership Styles, Outcome and Commitment
- Hypothesis 8: Managers Qualification Impact on Leadership Styles, Outcome and Commitment
- Hypothesis 9: Which leadership style has more impact on the outcomes
- Hypothesis 10: Which leadership style has more impact on the Outcome Extra Effort
Hypothesis 11: Which leadership style has more impact on the Outcome of Effectiveness

Hypothesis 12: Which leadership style has more impact on the Outcome of Satisfaction

3.14 Limitations of the Study

- This study was limited to 415 managers in high technology organization who responded to the survey.

- While the samples are included from various high technology organizations in India sufficient representation from all regions was not assured.

- The samples were selected from the 15 high technology organization while there are hundreds of organizations in India.

- The response rate was 41.5% while the survey was initiated to 1000 samples possibility exists that those who dint respond may had different views than those who participated and responded to this study.

- The respondents responded on their own choice based upon their self believe

- The in depended variable are limited to managers characteristics of gender, age, years of experience and qualification

- Therefore errors may have occurred due to the sampling technique in the findings.

In addition, a limitation of the study was the purposive sampling approach, which may affect the generalizability of the findings to a larger population. In-order to have a précised focus the research was delimited to specifically targeting the IT product and technology majors in India.