## GENERAL DECISION MAKING STYLE AND NEED PATTERN AS PREDICTORS OF TEAM EFFECTIVENESS

Ph.D. THESIS

by

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DEPARTMENT OF MANAGEMENT STUDIES INDIAN INSTITUTE OF TECHNOLOGY ROORKEE ROORKEE - 247667, INDIA JULY, 2013

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Submitted in partial fulfilment of the requirements for the award of the degree of

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by

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# INDIAN INSTITUTE OF TECHNOLOGY ROORKEE ROORKEE CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in this thesis entitled "GENERAL DECISION MAKING STYLE AND NEED PATTERN AS PREDICTORS OF TEAM EFFECTIVENESS" in partial fulfilment of the requirements for the award of the Degree of Doctor of Philosophy and submitted in the Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee is an authentic record of my own work carried out during a period from July, 2010 to July, 2013 under the supervision of Dr. Santosh Rangnekar, Associate Professor & Head and Dr. Mukesh Kumar Barua, Assistant Professor, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, Roorkee, Roorkee, Roorkee, India.

The matter presented in this thesis has not been submitted by me for the award of any other degree of this or any other Institute.

## (NEHA VERMA)

This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

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## ABSTRACT

"Effectiveness" is one of the main focus areas of contemporary research studies and the researchers are interested in identifying the predictors of effectiveness to devise ways of improvements. This study explores the General Decision Making Style (GDMS), Need Pattern (NP) and Team Effectiveness (TE) of Executives in select Indian organizations, and the effect of GDMS and NP on TE. The constructs of GDMS include Rational, Intuitive, Dependent, Avoidant and Spontaneous styles. The NP constructs are the secondary motives/psychological needs of Achievement (nAch), Affiliation (nAff), Power (nPow) and Security (nSec). The framework of TE constitutes the team functions like Cohesion, Confrontation, Collaboration, and the task functions like Task Clarity, Autonomy, Support and Accountability. The novel contribution of this study is the choice of unique predictor variables (GDMS and NP) to predict Team Effectiveness. The independent and dependent variables have been defined with literal text and explained with the help of relevant work done by other researchers.

This research adopts a cross sectional research design with the use of primary data based on survey using standardized scales, wherein 607 Executives (Senior, Middle and Junior-level) from select Indian organizations participated in the survey. The final sample comprises 541 executives from Industries of PME (Power, Mining and Exploration); IT-ITES (Informational Technology and IT Enabled Services); Telecom; Manufacturing and Service.

Primarily, the data have been analyzed using SPSS v17.0 Software. After normalization process, the Intra Class Coefficients on the three Scales were obtained to ensure the aggregated analysis of 541 samples. Further, Exploratory Factor Analysis using Principal Component Method, Reliability Analysis and Validity Analysis were carried out. Afterwards, Descriptive Statistics, Correlation Analysis, Independent Sample t-tests, ANOVA Analysis and Regression Analysis were used for testing the research hypotheses. Additionally, Structure Equation Modeling (SEM) was performed using AMOS v20.0 to compare the Original Model (Styles and Needs as predictors of TE) and the Alternate Model (TE as a predictor of the Styles and Needs).

The findings show that from highest to lowest the average GDMS of the executives is Rational, Intuitive, Dependent, Spontaneous and Avoidant. The average NP from highest to lowest is nAch, nPow, nAff and nSec. Average Team Functioning (TF) is found higher than the Average Task Function/Team Empowerment (TEmp). The highest TF constituent is Collaboration, followed by Cohesion and then Confrontation. Amongst the TEmp constituents, the highest is Task Clarity followed by Accountability, then Support and then Autonomy. The average TE of Executives is 68.04%. Significant differences are observed in Dependent style across Industries, Experience-levels, Sector and Gender; in Rational style across the Education and Sectors; in Spontaneous style across Industry and Sectors; in Intuitive style across Gender, and in Avoidant style across Experience-levels and Sectors. The significant difference in the motives/needs is in nAch across Industry and in nSec across Experience. TF varies across Industry, TEmp varies across Experience-levels and TE varies across Industry. The GDMS and NP independently as well as together explain significant variance in TE. Rational style, nAch, nAff and nPow are positive and Avoidant style & nSec are observed as negative predictors of TE. Dependent style positively predicts TE of IT-ITES executives, while negatively predicts TE of Public sector executives. The values of model fits and regression coefficients primarily remain significant in Industry-wise, Sector-wise and Experience-level wise analysis, except for certain exceptions. The results of goodness of fit indices for the original model have come out to be better and acceptable as compared to the alternate model.

The results have been discussed in the light of literature. Conclusions and Implications have been derived on the basis of the discussion. Future research scope has also been elaborated. TE researches have considered personality as predictor of TE but the variables of needs and decision making styles have not been sought in previous researches. Hence, based on the mean value researches, this study provides empirical evidence that GDMS and NP together as well as independently explain significant variance in TE.

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| S No. | Abbreviation   | Full Form  |
|-------|----------------|--|
| 1     | DM             | Decision Making                                  |
| 2     | DMS            | Decision Making Style                            |
| 3     | GDMS           | General Decision Making Style                    |
| 4     | NP             | Need Pattern                                     |
| 5     | nAch           | Need for Achievement                             |
| 6     | nAff           | Need for Affiliation                             |
| 7     | nPow           | Need for Power                                   |
| 8     | nSec           | Need for Security                                |
| 9     | TE             | Team Effectiveness                               |
| 10    | TF             | Team Functioning                                 |
| 11    | TEmp           | Team Empowerment                                 |
| 12    | TP             | Team Performance                                 |
| 13    | IPO            | Inputs Processes Outcomes                        |
| 14    | IMOI           | Inputs Mediators Outcomes Inputs                 |
| 15    | NPS            | Need Pattern Scale                               |
| 16    | TEAM           | Team Effectiveness Assessment Measure            |
| 17    | PME            | Power Mining and Exploration                     |
| 18    | <b>IT-ITES</b> | Informational Technology and IT Enabled Services |
| 19    | PCA            | Principal Component Analysis                     |
| 20    | MD             | Mean Difference                                  |
| 21    | CV             | Control Variables                                |
| 22    | SD             | Standard Deviation                               |

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## INTRODUCTION

This chapter presents the definitions and concepts related to the variables of the study-General Decision Making Style (GDMS), Need Pattern (NP) and Team Effectiveness (TE). It starts with a brief introduction incorporating the idea behind this research and afterwards proceeds through discussion of the variables and their factors. Towards the end it presents the rationale, scope, objectives and research questions of the study and the chapterization.

### **1.1 BRIEF INTRODUCTION ABOUT THE STUDY**

In this globalized world, Organizations are constantly making efforts for surviving in the marketplace and taking an edge over the competitors. This dynamic business environment puts a demand of effective employees who contribute towards the effectiveness of their team as well as organization. New concepts and approaches are required so that enterprises can restructure, transform and reinvent themselves to meet the ever increasing internal and external competition (Chaudhary, 2005). Although, researchers are focusing on various effectiveness aspects such as managerial effectiveness, organizational effectiveness and team effectiveness, but due to major benefits like innovations, creativity, learning etc., a significant research is going on Team Effectiveness (TE). Recent literature (for e.g. Ross et al., 2008) highlights that identifying the predictors of effective team can be a proactive approach to improve team effectiveness. According to Dhar et al. (1999), Work groups and teams are key leverage points for improving functioning. Since the team constitutes individuals, hence the individual personalities have an impact on group dynamics and hence on TE. Member compositional attributes has been considered as important criteria for TE and performance by many scholars time to time for e.g. Campion et al. (1996), West et al. (1998), Sicotte et al. (2002), Mannix and Neale (2005), Bell (2007), Mathieu et al. (2008), Volmer and Sonnentag (2011) etc. Hence this research focuses on predicting TE through two predictor member compositional personality variables, namelygeneral decision making style (GDMS) and need pattern (NP). The phenomenon of decision making has been explored by many researchers but only few actually paid attention to the individual decision making behavior or style for e.g. Scott and Bruce (1995) and Loo (2000). As per them the decision maker and his/her style must be taken into consideration while attributing the importance of decision making in management contexts. Likewise, researchers

like McClelland (1961), Maslow (1943), Herzberg *et al.* (1959) and Alderfer (1969) emphasized that employees are driven by their specific motives and every individual's performance is affected by his/her needs or motives, therefore employee needs are important in organizational contexts.

Individuals differ in their cognitive processes and their spatial visualizing capability (Tanlamai and Soongswang, 2011). According to Patrakosol and Kitikannakorn (2009), "Different Persons See Things Differently" and hence persons with different cognitive styles may have different perceived information quality. But the fact is that Individual business executives constitutively form the organizational teams and add to the compositional attributes of working teams. Different styles and motivational factors may have different impact on performances. For instance, sincerity of employees to perform all assignments and take decision on time, may lead to effectiveness, but the tendencies of rescuing the responsibilities whenever possible may hamper the same. In that case the study of executives' approaches of decision making becomes important. Moreover, the priorities of executives could be different ranging from a preference for challenging tasks to charm of designation or even to the preference for a secure job. It means that the orientation and kind of motivation to work might as well determine the success or effectiveness of executives and their teams. Therefore the study of executives' need and motivational pattern also bears significance.

The mean levels of various member styles and motivational patterns as well as combinational diversity might affect the effectiveness of the team and the organization. The inquisitiveness of investigating important compositional attributes and particularly those which have not yet been considered in TE researches, laid the foundation of this research work. Moreover, the Indian executives are usually said to make intuitive decisions by listening to their inner voice or gut feeling; and they are also assumed to possess collectivist orientation such as higher need for affiliation, need for dependence etc. The idea of such generalized notions provokes a curiosity of knowing the fact about such preset notions. Also, it raises the concern whether such cognitive and motivational tendencies of Indian executives bear any implication for their functional effectiveness or not? The functional structure of organizations in the contemporary global world is more focused towards team work. Hence Team Effectiveness (TE) is chosen as the dependent variable for this study. This study is an attempt to test the role of decision

making behavior or style and need pattern/motives as predictor variables to predict Team Effectiveness of Indian executives as dependent variable. Following are the concepts and theories related to the variables of the study.

### **1.2 GENERAL DECISION MAKING STYLE (GDMS)**

### 1.2.1 Decision Making (DM)

Decision Making (DM) is the selection of a course of action out of alternatives and it attempts to reach a predefined goal with a clear understanding of alternatives under given circumstances and limitations (Koontz and Weihrich, 2010). Also, According to Rao (2009), DM is a process through which individuals choose an alternative out of several to obtain a desired result. It covers all parts of an organization and all the actions of managers are actually done through decision making (for e.g. Planning, Organizing, Leading, Controlling etc.) and hence managers are also called as decision makers. Managers encounter problems and take decisions in solving them. Luthans (2002) presented a model of behavioral decision making in the form of a decision making continuum (Figure 1.1) that varies from extreme rationality (Economic Rationality) to Complete Irrationality (Social Model) of decision making. In between after Economic Rationality is the Simon's Bounded Rationality and before Social Model is Judgmental Heuristics and Biases Model. Moving from left to right the biases get included in the decision making. It attributes that in the case of economic rationality, the decision maker decides with pure rational means i.e. having collected all necessary information, generating and weighing alternatives and finally deciding the best alternative. But due to major constraints of resources, time, information processing capabilities of the human mind, the decision maker makes bounded rational decisions i.e. the real world and feasible decision making. Further sometimes the decisions are often based on judgments and heuristics means to decide what is felt right to the decision maker. Likewise the social model symbolizes the case of extreme irrationality with all types of biases involved in. Here the decision maker is spontaneous and generous.

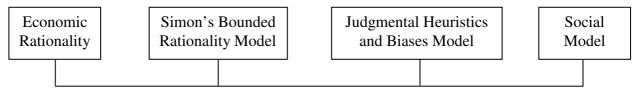


Figure 1.1: The Continuum of Decision Making Behavior (Source: Luthans, 2002)

According to Robbins *et al.* (2009), DM is a process of choosing from among two or more alternatives and any decision is effective based on correctly defining the problem. Each problem can be solved by identifying the available resources. The resources are to be given weightages and managers have to create the alternatives. After the evaluation of alternatives, they can achieve the best solution available to them. The rational decision making model supports the above steps and avoids common biases and errors in decision making process. In addition to managers, the non-managerial employees also make decisions for their tasks, and recently such an empowerment has been formally introduced in organizations. Interestingly, decision making process can be misleading by overconfidence bias (i.e. When one feels whatever is known to self is the only truth), anchoring bias (i.e. To rely upon the earliest available information), confirmation bias (i.e. To favor the information matching one's own belief) and availability bias (i.e. To decide upon what comes in mind, alternatively to decide on judgement and heuristics).

Even organization may put constraints for the decision maker by creating a deviation from rational decision making process, for e.g. by prefixing the performance evaluation criteria (leaving the rest important things aside) those can be easily and specifically met by employees. Moreover, the ethics also influence decision making due to the lack of Global Ethical Standards and therefore the decision making differs from one country to another country. The decisions can be improved through creativity. If managers have creative potential they can use their creativity in decision-making or problem solving process. There can be important cultural differences in decision making process however managers should be cross cultural while responding in practical situations (Robbins *et al.*, 2009).

According to Von Winterfeld and Edwards (1986), DM is a cognitive process which involves evaluation of events to choose courses of action among alternatives. While making a decision, the decision maker has to consider and integrate various kinds of information in order to generate alternative choices and then he/she finds suitable strategies to decide. In this process, he/she may rely on experience and knowledge. Generally, not always the rational principles but sometimes heuristics also bear affect on the decisions. Few factors on which the decision depends may include decisional context (Payne *et al.*, 1993), time pressure (Ahituv *et al.*, 1998), and task complexity (Brehmer, 1992). The quality of decision making is assessed in

terms of the value of the outcome, whereby the optimal choice would be that offering the greatest overall utility. In this sense, decisions are broken down into basic components on the assumption of logical and rationalistic processing of this information (Von Neuman and Morgenstern, 1947).

In view of Fincham and Rhodes (2005), DM is a socially constructed phenomenon and that is why inspite of various ranges of technical and mathematical decision theories, there is interest in behavioral and organizational theories of decision making. Constraints like social structures, real life limits of social groups and human factors have thus been the inspiration behind managerial theories of decision making. Rationality is criticized for ignoring the problem of conflict and for power based actions and marginalizing majority interests by exaggerating consensus and unity in decision making. The concept of bounded rationality has ended the shortcomings of human rationality (March and Simon, 1958). Bounded Rationality is the real world model where the decision is taken with information available really, whereas rationality is considered as an ideal world model as all information availability is an ideal situation (Robbins *et al.*, 2009).

Basi (1998) identified the organizational decision making skills required at all organizational levels. According to him the decision makers can be categorized as executives, managers or supervisors. The executives should be able to scan the environment for opportunities and threats; therefore they should possess a high level of intuition. To successfully see a decision through implementation, the lower level of managers needs good negotiation skills as they work with many differing units for accomplishing the goals. Whereas the lowest level supervisors need good computational skills because of routine decisions. Hence, behavior need not to be similar rather there is possibility of variations across the style of different position profiles. Simon (1960) addressed decision making as synonymous with managing i.e. as the essence of every manager's job. It is a fundamental activity and a critical element of the organization's spell.

### 1.2.2 Decision Making Style (DMS)

According to Harren (1979), Decision Making Style (DMS) is "the degree to which an individual takes personal responsibility for decision making as opposed to projecting responsibility outward toward fate, peers and authorities, and the degree to which an

individual uses logical versus emotional strategies in decision making". DMS is an individual's typical way of interpreting and responding to decision making tasks (Harren, 1979; Driver, 1979). Driver *et al.* (1993) defined DMS as a learned habit and propounded that the key differences among styles are due to the amount of information considered during a decision process and the number of alternatives identified when reaching a decision. Further, Scott and Bruce (1995) put forward the definition of DMS as a habit based propensity to respond in a certain way in a specific decision-making situation. In view of Gilovich *et al.* (2002), DMS is based on unconscious process resulted out of experiences.

Thunholm (2004) defined DMS as "the response pattern exhibited by an individual in a decision-making situation. This response pattern is determined by the decision-making situation, the decision-making task and by the individual decision maker. Individual differences between decision makers include differences in habits but also differences in basic cognitive abilities such as information processing, self-evaluation and self-regulation, which have a consistent impact on the response pattern across different decision-making tasks and situations". DMS helps in understanding the different decision processes used by a person while facing apparently identical situations (Nutt, 1990).

Recently, Conteh (2009) stated that Decision Style is the way and manner in which decision makers think and respond to or address problems, and it is about their cognitive response to decision situations as well as their individual and situational differences in beliefs and values. The researcher categorized decision making styles under four heads of analytic-autocratic (I), heuristic autocratic (II), analytic consultative (III) and heuristic consultative (IV), and emphasized that consultative style (analytic/heuristic) yield most significant process of and outcome of decision making and thus contribute to improved organizational performance.

According to Anderson (2000), Perception and judgement are the determining factors of DMS. Information gathering and information evaluation are two main dimensions of DMS (McKenny and Keen, 1974; Mitroff, 1983). Keegan (1984) addressed judgement and the DM functions on the basis of sensing and intuition, which is also used by Jung in his typology by the use of thinking and feeling. However Jung's theory contains no prediction of the relationship between DMS based behavior and the effects of such behavior.

Thinking styles indicates the way people prefer to use their intellectual abilities or the manner in which they process information (Sternberg, 1997). Decision-making styles are a subset of broader thinking styles limited to decision-making tasks only. But DMS reflects many psychological dimensions including how a decision maker perceives the happening around them and how they process information (Rowe and Mason, 1987). Hunt *et al.* (1989) had found that mixture of styles would be empirically possible. The differences among various DMS is a function of the amount of information considered and a number of alternatives identified during a DM process, and also the DMS is a learned habit and primary as well as secondary styles in individuals are possible (Driver *et al.*, 1993). An a priori knowledge about the DMS of individuals can be helpful in predicting how they will react to various decision making situations (Rowe and Boulgarides, 1994).

The models based on the relationship between personality and decision making have revealed many decision making styles. Time to time various DMS have been identified and tested by researchers. Warren (1979) identified the three DMS: rational (making decisions using rationality), dependent (making decisions by means of other's opinion and expectations) and intuitive (making decisions based on feelings and emotions), and mentioned that individual's approach to a certain decision task is characterized by one predominant style. Further, Phillips *et al.* (1984a) added one more DMS to Harren's three styles namely Avoidant DMS (the tendency to avoid or postpone decision making). Keegan (1984) propounded decision making styles within the perception and judgement functions. He treated these styles as bipolar in nature where ranges of styles vary in between two extreme poles of perception and judgement. Mitroff (1983) and Hunt *et al.* (1989) emphasized on Analytical (similar with Rational) and Intuitive DMS.

Based on cognitive complexity and values orientation, the four DMS as suggested by Row and Mason (1987) are Behavioral, Conceptual, Analytical and Directive. The behavioral DMS is sociable and friendly; the conceptual DMS is insightful, adaptive and flexible; the Analytical DMS is intellectual and control-oriented, and directive DMS is practical, authoritarian and power-oriented. Two categories of DMS by Mann *et al.* (1989) are Adaptive (self-confidence and vigilance) and Maladaptive (panic, evasiveness and complacency). Self-confident means the individual is optimistic and confident about his/her own decisions; vigilant means the

individual carefully considers all the options before making decisions; panicked means the individual expresses anxiety and stress in the decision-making process; evasive means the individual tends to procrastinate decisions; and complacent means the individual can't solve situations and follows the others.

In 1995, Scott and Bruce took up the subject matter of DMS and identified five general decision making styles (GDMS) namely Rational, Intuitive, Dependent, Avoidant and Spontaneous. Rare other DMS include Maximizers/Satisficers (Schwartz et al., 2002; Parker et al., 2007) and Behavioral coping or taking action to resolve difficult tasks, rather than working around them (Epstein and Meier, 1989; Katz and Epstein, 1991). According to Scott and Bruce (1995), people may use more than one GDMS but one is dominant in a person's behavior. Tambe and Krishnan (2000) categorized three broad perspectives of studying DMS. First, the guidance-counseling perspective that attributes DMS as the degree to which an individual takes personal responsibility for decision-making and uses rational versus emotional strategies. Second, the social perspective which talks about the dimensions of information gathering, processing and evaluation that results in a particular typology of decision maker. Third, the Jungian-based theories that address the DMS as a function of perceptions and judgements. The Scott and Bruce's (1995) five GDMS (Rational, Intuitive, Dependent, Avoidant and Spontaneous) were classified under the social perspective by Tambe and Krishnan (2000). The five GDMS have received maximum literature support till date. This study also adopts the GDMS framework and following sub sections elaborates each of the DMS.

#### **1.2.2.1 Rational DMS**

This style symbolizes exhaustive information search and logical evaluation of alternatives to choose the best alternative (Scott and Bruce, 1995). It incorporates planning the important decisions carefully, making decisions in a logical and systematic way, double-checking the information sources to be assured about right facts, giving a careful thought and considering various options in terms of a specific goal. In view of Harren (1979), a rational decision maker accepts responsibility for decision making; anticipates the consequences of previous and current decisions; also gathers and weighs information carefully, thoroughly and objectively (Cook and Harren, 1979). Therefore, systematic appraisal and logical deliberation with an expanded time perspective are shown by the rational decision maker. Likewise Phillips *et al.* 

(1985) also confirmed that rational DMS relate with extended time perspective, planfullness, and systematic and cautious evaluation. It is to approach the task objectively, unemotionally, analytically and thoroughly. Thus Rational DMS has been considered as ideal (Harren, 1979; Chartrand *et al.*, 1993; Mau and Jepsen, 1992). Thinking/Rational DMS is needed for evaluation of alternatives to select the solution, while the other daily supervision may not need rationality always (Keegan, 1984). Cognitive psychology suggests that decision maker has limited information processing capability that directs the rational decisions. Firstly, attention is paid to selective piece of information and further the cognitive resource guide the selected information processing. Finally, a choice is made based on information processing (Patrakosol and Kitikannakorn, 2009).

Simon (1945) believed that rationality is an ideal situation but in the real world with all the constraints and limitations such as organizational complexity and manager's cognitive abilities, the rationality turns to bounded rationality. The choices involved are thus "satisficing" rather than "optimizing". Therefore the real life situations allow bounded rationality where the decision makers tend to satisfy themselves with the constrained available information. Schwartz *et al.* (2002) put forward this view as maximizers/satisficers. Where maximizers have a tendency to look for the best outcome until they find it and satisficers are in search of just a good outcome.

### 1.2.2.2 Intuitive DMS

The intuitive style attributes attention to details, unsystematic information processing, and reliance on premonitions and feelings (Scott and Bruce, 1995). It denotes to rely on instincts (nature), tend to rely on intuition (insight), to decide what one feels is right, to consider feel right instead of rational reason for a decision, and the trust on inner reactions while making important decisions. In view of Klaczynski (2001), and Stanovich and West (2000), it connotes to approach the task personally, emotionally, holistically, and drawing on one's feeling. As per Gilovich *et al.* (2002), Intuitive decision making is based on unconscious process resulted out of experiences. According to Phillips *et al.* (1985), the intuitive decision maker considers emotional factors often in an impulsive manner and makes decisions based on how things are right now rather than in the future and decides without checking out the facts. The intuitive decision making similar to the rational decision

maker. However unlike Rational DMS, the reliance in Intuitive DMS is on "fantasy, attention to present feelings, and an emotional self-awareness", (Harren, 1979, p. 125). Working executives and managers must be able to scan opportunities and threat and for that intuition is needed (Eccles and Nohria, 1992).

### 1.2.2.3 Dependent DMS

The dependent style is characterized by search for advice and guidance from others before making important decisions (Scott and Bruce, 1995). Such a decision maker: often needs assistance of other people while making important decisions, rarely makes important decisions without consulting others, feels easy to make decisions with the support of others, uses the advice of other people in making important decisions, and likes to have someone to guide him/her in the right direction. Therefore, under Dependent style uncertainty is reduced through consultation, advice and guidance from others. Harren (1979) propounded that unlike Rational and Intuitive, the Dependent decision maker transfers the responsibility for choice to external events or other people. Therefore, the dependent decision maker is passive, compliant, and heavily influenced by the expectations of others. In view of Phillips et al. (1985), the dependent style has features like reliance on the help, support, opinions, and directions of others. Hence the dependent decision makers are influenced by the expectations of others and would be likely to delay choice until the guidance of friends or experts is obtained. While, Salo and Allwood (2011) found that the dependent decision maker rescues decision making tasks by asking for the advice of others and this style results in high stress and poor sleep, and dependent decision makers reveal forerunning conditions of stress.

#### 1.2.2.4 Avoidant DMS

The avoidant style signifies procrastination in decision-making i.e. a tendency to avoid and postpone decisions. In view of Scott and Bruce (1995), it is to postpone and avoid making decisions, and rescuing the decision making task as long as possible. This type of decision maker avoids making decisions until the pressure is on, postpones making decisions whenever possible, adjourns/procrastinates/delays when it comes to making important decisions, decides at the last minute, and puts off making decisions as the same makes him/her feel uneasy. According to Salo and Allwood (2011), usually a person who doubts his or her decision making ability, actually avoids making decisions. However Avoidant DMS also attributes postponing

decisions to search for more information and ponder the possibilities. But generally this DMS is negatively related with satisfaction with life, and leads to poor sleep and higher perceived stress. Thus avoidant DMS is associated with negative features like feel regret and tendency to maximize (Parker *et al.*, 2007). Such decision maker displays burnout possibilities. Avoidant DMS is positively related with negative stress (Thunholm, 2008). This is not a healthy way to approach making decisions, as here one attempts to postpone or avoid making a decision. Although taking time to reflect on options is good but avoiding or postponing making the decision can lead to negative consequences. According to Hablemitoglu and Yildirim (2008), a person with an Avoidant DMS will make every effort to avoid making a decision. Therefore, the avoidant style is more often considered negative unless the decision maker has a justifiable reason for avoidance.

### 1.2.2.5 Spontaneous DMS

The spontaneous style represents a sense of immediacy to quickly take a stand and to reach a decision (i.e. to finalize decisions) as quickly as possible with a desire to complete the decision making process quickly (Scott and Bruce, 1995). Such decision maker generally makes decisions at a click or sudden, often makes decisions on the spur of the moment, makes quick decisions, often makes impulsive/rapid/speedy decisions, and does/decides what seems natural at the moment. The Spontaneous DMS is an expression of lesser chances of planning the work (Salo and Allwood, 2011). Hence such decision makers should be provided with clear work directives. According to Coscarelli (1983), spontaneous persons react to a total experience rather than breaking the total experience into component parts and reacting to each part separately. In doing so, they react only to a particular component of the process (for e.g. objectives) and ignore the others. Such decision makers make holistic (i.e. see a big picture) as well as quick decisions and move to new goals easily and without much consideration (Osipow and Reed, 1985). They are quick because they tend to try all their choices in order to understand them completely. Hence they comfortably switch to new choice if the previous is proven wrong (Jaehnig, 2008). With such ease, the spontaneous decision maker has lower associated risk unlike a rational person, whose everything is at stake with any single mistake.

The efficacy of a particular DMS depends on personal variables, context, and culture as well as on the particular decision-making tasks (Mau, 1995). Tanlamai and Soongswang (2011)

accepted the fact that a priori to decision-making is the learning process and how people see, think and learn may depend on their innate style of learning for e.g. some might prefer sensing rather than being intuitive. In view of Cosgrave (1996), emergency situations require quick decision making with the limited available information. Therefore decision making skills are crucial in emergencies. The three constraints create problem for managers in emergencies namely- the time constraint, the limited information constraint and the load constraints (too many decisions to be taken). Johnson (1978) had asserted that none of the DMS is likely to be better or worse than the others. The spontaneous decision maker is impulsive or prone to making snap or spur of the moment decisions. This trait can be valuable in terms of not over planning the future, but it is not always good to leave important decisions to be made on the spot.

### 1.3 NEED PATTERN (NP)

### 1.3.1 Motivation

Usually in the definition of motivation, the following words are included- desires, needs, motives, drives, wants, goals, aims and incentives (Luthans, 2008). The word motivation is derived from the Latin word "Movere" that means "to move". Motivation is defined by Luthans (2002, 2008) as a process that starts with a physiological and psychological deficiency or need that activates a behavior or a drive that is aimed at a goal or incentive (Figure 1.2). In other words, motivation is a force that accounts for stimulation, choice, direction and persistence of behavior.



Figure 1.2: The Basic Motivation Process (Source: Luthans, 2008)

Pareek (2002a) used the word motivation as one of the aspect of Emotional Intelligence as conceptualized by Salovey and John (1999), it involves a person's passion to work for reasons that go beyond money or status i.e. Resilience: ability to bounce back from disappointments, and pursuing goals with energy and persistence. Motivation has been termed as an aspect of personal efficacy by Pareek and Purohit (2010). An individual with high personal efficacy is a highly motivated individual. Once, the art of influencing behavior is learnt by the organization,

the gap between individual and organizational objective decreases. The answer to 'what motivates people' is a key to success.

According to Fincham and Rhodes (2005), there can be two categories of motivational theories, one is Content and other is Process. Content theories focus on individual's internal attributes, needs, drives and goals. Also, the underlying assumption of content theories is that same set of needs is present in all individuals. On the other hand, the Process theories focus upon the individual's interaction with environment, cognitive judgements and preferences (Wilson, 2004).

#### 1.3.2 Needs or Motives

According to Drever (1952), "motive is an affective cognitive factor which operates in determining the direction of an individual's behavior towards the end or goal, consciously apprehended, or unconscious". Needs or motives are the precursors to motivation which may be defined as a propensity to behave in a particular manner (Atkinson, 1958). Gasper (2007) propounded that needs are strong wants or things in the absence of which one person suffers, and the types of needs remain the same for everyone in the world. According to McShane et al. (2006), Needs are deficiencies that energies or trigger behaviors to satisfy those needs. Stronger the needs, the more motivated the person to satisfy them. To Luthans (2008), needs are created whenever there is a physiological or psychological imbalance, for instance deprivation of food causes hunger, but like physiological needs, the psychological needs are not always due to deficiencies. Gomes (2011) has a view that different needs are distinctively valued by different individuals throughout the society. Such difference is due to distinct individual personalities, culture, education or life experience. Therefore needs not only vary across individuals but also for a same individual across time and contexts. According to Winter (1973), needs are the major determinants directing and energizing human action but not the only reasons for behavior. The fulfillment of needs leads to satisfaction. Individuals differ in their needs and values, and individuals' behaviors are directed towards satisfying their unmet needs (Alderfer, 1969). According to Carpenter et al. (2009), early researchers thought that employees demonstrate goal-driven behavior to satisfy needs and therefore earliest answer to motivation involved understanding individual needs.

#### 1.3.3 Need based theories of Motivation

Need based theories of motivation include Maslow's hierarchy of needs theory, Alderfer's ERG (Existence, Relatedness and Growth) theory, Herzberg's two factor theory, and McClelland's theory of acquired needs (Robbins *et al.*, 2009), (Figure 1.3, p. 15).

The hierarchy theory explains hierarchy of 5 needs: Physiological, Safety, Social, Esteem and Self-actualization. Maslow (1943, 1954) stated that human beings have needs that are hierarchically ranked; with most basic the physiological needs (air, food, and water). Once physiological needs are satisfied, people tend to become concerned about next level i.e. safety/security needs (to be safe from danger, pain, or an uncertain future). Next level is of social needs (to bond with other human beings, to be loved, and to form lasting attachments). Esteem needs (to be respected by one's peers, feeling important, and being appreciated) come after the satisfaction of social needs. The highest level is of the need for self-actualization (attaining excellence to the best of one's capability for e.g. acquiring new skills, taking on new challenges, and behaving in a way that will lead to the satisfaction of one's life goals). Maslow's need theory had wide acceptance amongst practicing managers. However the hierarchy of needs may not be same as explained by Maslow.

Alderfer (1969) attempted to rework Maslow's need hierarchy and proposed ERG (Existence, Relatedness and Growth) theory. The theory explains three groups of core needs, Existence (Similar to Maslow's Physiological and Safety needs), Relatedness (similar to Maslow's Social and Status needs) and Growth (Similar to Maslow's Esteem and Self Actualization needs). Alderfer did not assume that these needs existed in a rigid hierarchy as suggested by Maslow (Robbins *et al.*, 2009). The empirical research has been more supportive of ERG theory than Maslow's hierarchy of needs (Schneider and Alderfer, 1973; Borg and Braun, 1996).

Herzberg's Two Factor Theory, also known as Motivation-Hygiene theory (Herzberg, *et al.*, 1959) was based on interviews with 200 accountants and engineers regarding two factors. One factor involved the sources of satisfaction for e.g. achievement, advancement, recognition, autonomy etc., termed as Motivators. Other factor involved the sources of dissatisfaction for e.g. working condition, salary, job security, company policy, supervisors, interpersonal relations etc., termed as Hygiene factors. Herzberg inquired "what people want from their jobs?" and significantly elaborated that the opposite of satisfaction is not dissatisfaction and

removing dissatisfying factors can't make employees satisfied (Fincham and Rhodes, 2005; Robbins *et al.*, 2009). The two factors of Motivation and Hygiene are also known as Intrinsic (Internal to the job) and Extrinsic (External to the job), respectively. The intrinsic factors were concerned with the content of the job (i.e. Motivators), whereas the extrinsic were related to the contexts of the job (i.e. Hygiene).

McClelland's Theory of needs (developed by David McClelland and his associates) focuses on three needs: Need for Achievement (nAch) i.e. the drive to excel, to strive to succeed, to have achievement against standards; Need for Power (nPow) i.e. the desire to make others behave in a way in which otherwise they would not behave, and Need for Affiliation (nAff) i.e. the desire for close interpersonal and friendly relationships (McClelland, 1961, 1975; Atkinson and Raynor, 1974; Stahl, 1986).

Figure 1.3 depicts that Herzberg's hygiene factors incorporate Alderfer's Existence and Relatedness needs, McClelland's Affiliation and also Maslow's first three needs. While the motivation factors include Growth, Achievement, Power, Self Esteem Ego and Self Actualization needs. However, inspite of consideration of hygiene and motivators as extrinsic and intrinsic factors, all the needs are intrinsic i.e. internal to the individual (practical-management.com, 2011).

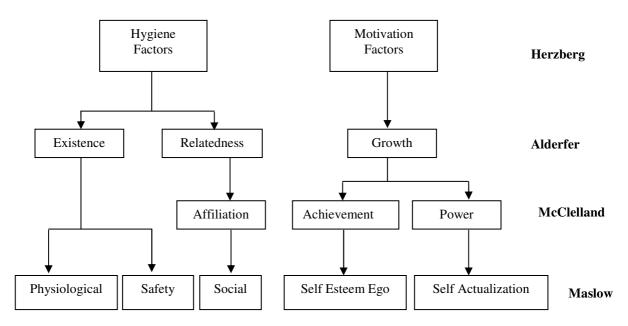


Figure 1.3: Visualization of Need Theories (Adapted from practical-management.com)

Intrinsic and Extrinsic Motivation: Udechukwu (2009) contended that while Maslow suggested that needs which drive behaviors are associated with work attitudes (for e.g. satisfaction) can be assigned to various levels, Herzberg made the distinction that needs that influence work attitudes can be met intrinsically or extrinsically. In addition to the Herzberg's contention of intrinsic and extrinsic factors, a significant body of research is there on intrinsic and extrinsic motivation. Intrinsic motivation suggests that individuals perform any tasks due to their intrinsic or internal need or desire, while external motivation attributes that certain external stimulus makes them to perform any task (practical-management.com, 2011). Intrinsic motivation is a major reason to serve well and get personal satisfaction (Jong et al., 2000). Ryan and Deci (2000) illustrated that intrinsic motivation is typically denoted through high levels of interest, excitement, and confidence. It is evolved propensity (Ryan et al., 1997) that possesses a natural inclination toward mastery and values the activity not the rewards. According to Loo (2001), intrinsic motivation (in relation to work) deals with the causes stimulating the desire to work for own value of the task, such as the task is interesting, challenging, or personally satisfying for the individual, while extrinsic motivation represents extra-personal stimuli presented to affect the desire to work, like money, rewards, and recognition, or because of some external threat.

#### 1.3.4 Need Pattern

Need Pattern means the real feelings held in an unhealed, spinning state. Every individual has a baggage of motives/needs awaiting gratification that become a pattern and energize behavior. Identification of such pattern and fulfillment of those motives turns a person towards better performance adjustment and satisfaction (Sanghi, 1998). A list of human motives was developed by Murray (1938) which became the inspiration of further studies. McClelland *et al.* (1953) gave three important motives of achievement, affiliation and power. In addition to these three, Security motive is another important motive relevant in organizations. The motives of achievement, affiliation, power and security are being studied to understand people at work and measurement of these four has become a concern at workplace (Pareek 2002a; Pareek and Purohit, 2010). All these are psychological needs. Psychological needs are based on deficiency but not always. For example a person with a high need to get ahead can have a good track record of success in the past (Luthans, 2008).

According to Sanghi (1998), Needs are often classified as primary (physiological) and secondary (social and psychological). The secondary needs are the needs of mind and spirit with some peculiar features like they are conditioned by experience, they vary in type and intensity among people, they change within any individual, they work in groups rather than alone, they often are hidden from conscious recognition and unlike primary needs they are nebulous (Sanghi, 1998). These secondary motives/needs include the following- need for achievement (nAch), need for Affiliation (nAff), need for Power (nPow), need for Security (nSec) and need for Aggression (nAgg). According to Luthans (2002, 2008), few human motives which are unlearned are physiological, biological and primary. Whereas the motives those are learned over the time as the human society develops, are secondary motives. These include the need for Achievement, Affiliation, Power, Security and Status. The last two have taken up the position in the list in special reference to the Organizational Behavior.

The discussion so far highlights the following important secondary motives- Need for Achievement, Need for Affiliation, Need for Power and Need for Security (for e.g. Sanghi, 1998; Pareek 2002a; Luthans 2002, 2008; Pareek and Purohit, 2010). These motives are being discussed below:

#### 1.3.4.1 Need for Achievement (nAch)

Achievement motive can be defined as strive to increase or keep as high as possible one's own capacity in all activities in which competition with some standards of excellence is thought to be involved, and where the execution of such activity can therefore either succeed or fail. Higher the nAch in a person, more is the willingness to take responsibility and foresightedness for success (Sanghi, 1998). Luthans (2002, 2008) defined this secondary motive as the degree to which a person wishes to attain challenging goals, succeed in competitive situations, and exhibit the desire for unambiguous feedback about performance. The person with higher nAch has higher levels of all the elements mentioned in the last line.

David McClelland thoroughly investigated about nAch and found few specific characteristics of high achievement motive people. To brief a few: *Moderate risk taking* i.e. unconventionally such persons believe in moderate risk taking by skipping the luck factor associated with higher risk and also the obvious/common for all victory associated with the lower risk; *Need for immediate feedback* i.e. they prefer activities that provide immediate feedback about how they

are proceeding towards their goals (for e.g. Tuckey *et al.*, 2002) and therefore they are good in sales/managerial career in which they are frequently evaluated; *Satisfaction with accomplishment* i.e. the task itself satisfies them and the reward is just token of victory for them, they would prefer a more challenging task with lower rewards rather than a simple task with higher reward; and *Preoccupation with the task* i.e. they remain preoccupied with the task until it is successfully completed, they don't leave a job half finished and without giving their maximum efforts, they stand quiet and often lonely that's why such people may not be that successful in managerial positions where one is required to be get alongwith people (Johnson *et al.*, 1981).

Need for Achievement (nAch) is subsequently being attention of researchers. A person with high nAch would explain a picture with going down sun and a farmer working hard in the field, as the farmer would wish to have some more time to finish his work as a part of the field is still left to be ploughed (Spangle, 1992). Individuals with high nAch enjoy doing things themselves and may find it difficult to delegate authority when reached in higher positions. This motive has been praised for its importance in and for success in entrepreneurship and business (McClelland and Winter, 1969; Miner *et al.*, 1994). Also it was found associated with national economic growth (McClelland, 1961).

# 1.3.4.2 Need for Affiliation (nAff)

Affiliation motive or nAff attributes the person's desire for social contacts or belongingness (Veroff and Veroff, 1980). This motive plays very complex but vital role in human behavior (O'Connor and Rosenblood, 1996). According to Murray (1938), nAff reflects the tendency to receive social rewards in form of harmonious relationships. Individuals differ with regard to self-construal of their interdependence and independence i.e. the degree to which they see themselves connected to or separate from others. Such self-construal shapes their needs that ultimately influence their motivation and emotions (Markus and Kitayama, 1991). People with high nAff strive for friendship, prefer to participate in collaborative situation, and seek mutual understanding with others. Such people work better in their favorable attitude and cooperation. Higher the nAff, more the individual is group dependent and social, and hates staying alone (Sanghi, 1998). In managerial positions, the high nAff may be disadvantageous as individuals with high nAff are overly concerned about how they are perceived by others and they may find

it difficult to give employees critical feedback or disciplining poor performers (McClelland, 1961). But the view of Wiesenfeld *et al.* (2001) suggests that employees with high nAff have a strong intrinsic need to identify themselves with the organization, irrespective of their membership significance (permanent/ temporary/ part time/full time etc.) in the organization.

Luthans (2002, 2008) defined Affiliation as the degree to which people seek approval from others, conform to others' wishes, and avoid conflict with others. People with higher affiliation motive express the greatest desire to be socially accepted by others. This motive is sometimes equated with social motives. It actually is an important part of group dynamics (i.e. how a group should be organized and conducted and it also includes the set of techniques like role playing, brainstorming, team building etc.) and team. Individuals join group to address their intense social needs. Moreover, workers generally have a strong nAff, which is met by belonging to a group or becoming a member of a team. Contemporary research as well as that of the times of Hawthorn Studies revealed that the affiliation motive has a major impact that social identity and effectiveness are important group processes verified so far (Van Der Vegt and Bunderson, 2005; Ferris *et al.*, 2002). Research shows that this motive is associated with work motivation and outcomes in terms of work turnover (Richer *et al.*, 2002). Hence high nAff is also contributory towards performance at the workplace.

# 1.3.4.3 Need for Power (nPow)

Atkinson (1958) defined nPow as "disposition directing behavior toward satisfaction contingent upon the control of the means of influencing another person". People with high power motive strive to have influence on others, prefer to participate in status oriented situations, and desire to control the information channels to improve their self image. Higher the nPow, more the individual has leadership tendencies and is influential, disciplined, and dominating (Sanghi, 1998). As per Luthans (2002, 2008) this motive has been formally recognized and studied since a long time. It is the need to manipulate others or being in charge of others. Alderfer Adler has been the prominent advocate of this motive. He developed the concept of inferiority complex and compensation. It means that every child feels a sort of inferiority complex that develops a need for superiority, and the two aspects rule his/her behavior. Such person's lifestyle is characterized by striving to compensate for feelings of inferiority combined with an innate desire for power. But, the contemporary psychologists have denied the claim that power drive is inborn and thus dominant. An interest in reinvestigating the fact has been developed and focus has been shifted to political reign to research on such motive. Additionally the key positions in businesses, unions, governments, education and military are also being focused. This motive has been found important in management (McClelland, 1975; McClelland and Burnham, 1976). Also it has significant implications for organizational leadership and political aspects in organizations (for e.g. Reimers and Barbuto, 2002). Power oriented rewards and employee empowerment are being suggested by practitioners for motivating the employees (Spitzer, 1996). High nPow may destroy relationships but it leads to positive outcomes through more altruistic forms of changing the way things are done (McClelland, 1961).

The power motive was found to be a complex one as compared to the other two (Achievement and Affiliation). Therefore McClelland (1975) argued that the nPow or the power motive comprises three elements: Control (the personal power to have a control on people to make sure the developments and plans are being worked upon and to be informed about everything); Influence (need to make an impact on others so as to make others do what one thinks is right i.e. an urge to change or develop people) and socialized power (the use of power for benefits of a large group such as society). Mehta (1994) was the one to propose social achievement motive (similar to the socialized power). Pareek (1968ab) also thought on the same grounds i.e. to use power for social developments, and called it as extension motive.

### **1.3.4.4 Need for Security (nSec)**

Every individual is concerned about to protect oneself and one's family from hazards. Such concern symbolizes the nSec. This need is much more when one finds self more responsible and more vulnerable. Such security motive begins to manifest even when the only modest threat is present in the environment. Higher the nSec, more the person is worried about the future, social prestige, financial security, seeks security from friends, and feels frightened of being dismissed (Sanghi, 1998). Once physiological needs are satisfied, people tend to become concerned about the next level of the need hierarchy i.e. safety/security needs which incorporate the concerns of being safe from danger, pain, or an uncertain future (Maslow, 1943, 1954). Herzberg *et al.* (1959) categorized the security/safety needs under the "hygiene" factors (the absence of such factors causes "dissatisfaction" amongst the workers) like satisfactory salary, safety, and security on the job. Luthans (2002, 2008) stated that the security motive is

too intense in the contemporary fast-paced technological society. One can be concerned about paying the installments for durables, keeping the family happy, obtaining and keeping a good job, and even staying secure in present and future. Moreover the concern for job security is foremost in this post liberalized world of contract labor, downsizing (Cameron, 1994; Morris et al., 1999), and part timers/temporary workers. The security motive is simpler than other three secondary motives. It is largely based on fear and is avoidance oriented. It is learning to protect oneself from the contingencies of life and avoid situations those may prevent someone from satisfying the other psychological as well as physiological needs. Luthans (2002, 2008) mentioned that even the security motive can be of two types: Conscious (Simple, explained earlier) and unconscious (Complex, which cannot be addressed easily). Conscious security motive has so far been the concern and is very important in learning the behaviors of people. Many organizations provide for insurance programs, personal savings plans, and other benefits to their employees, in order to reduce their insecurities. A certain companies do not lay off their employees rather they arrange for providing minimum annual salaries to secure a decent living for employees' families. Few unconscious motives which cannot be addressed may influence the behaviors for e.g. a tension of losing social prestige and someone close in life.

The concern of this research is with the above four secondary/psychological motives/needs. These can be understood thoroughly at a glance through Table 1.1.

| Need for Achievement (nAch)                              | Need for Affiliation (nAff)                                     |
|--|---|
| • Doing better than competitors                          | • Being liked by many people                                    |
| • Attaining and Surpassing a difficult goal              | • Being accepted as a part of a group or team                   |
| • Solving a complex problem                              | • Working with friendly & cooperative people                    |
| • Carrying out challenges successfully                   | • Maintaining harmonious terms/avoid conflict                   |
| • Developing a better way to do something                | <ul> <li>Participating in pleasant social activities</li> </ul> |
|  |   |
| Need for Power (nPow)                                    | Need for Security (nSec)  |
| • Influencing people to change their attitudes           | • Having a Secure job   |
| and behaviors  | • Being protected against economic loss                         |
| <ul> <li>Controlling people and activities</li> </ul>    | • Having protection against illness/ disability                 |
| • Being in a position of authority over others           | • Being protected against physical harm or                      |
| <ul> <li>Gaining control over information and</li> </ul> | hazardous conditions  |
| resources  | • Avoiding tasks with a risk of failure or blame                |
| • Defeating an opponent or enemy                         |   |

Table 1.1: Examples of Secondary Motives (Adapted from Luthans 2002, 2008 and Yukl, 1990)

#### **1.4 TEAM EFFECTIVENESS (TE)**

### 1.4.1 Team and Team Work

According to Katzenbach and Smith (1993), a team is a small number of people with complementary skills, committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable. A Team is built by fostering trust, communication and cooperation to increase efficiency and improve performance which in turn brings cohesion. Individual and Collective motivation of members in result-oriented teams render impressive results.

According to Guzzo and Dickson (1996) "team is made up of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g., community, organization), and who perform tasks that affect others (such as customers or coworkers)".

A team is comprised of 2 or more people who interact interdependently towards a common goal (Salas *et al.*, 1992). A Team is a collection of individuals with interdependent roles working for same goal(s) which is congruent with individual goals (Pareek and Purohit, 2010). Therefore characteristics of a team are: interdependent members; common goal(s); each member has a distinct role that is unique in its contribution; and individual and team goals are congruent in a team.

Teamwork is the ability to achieve uncommon results using common people by directing individual objectives towards organizational objectives. Team spirit can be gained by identifying individual members' needs and skills; therefore no member of a team is useless (Fincham and Rhodes, 2005). Team work is thus the driver of competitive improvement.

Teamwork exist when members work together with ways of utilizing their skills to accomplish a common purpose; it achieves competitive advantage with respect to quality of product and of customer service, marketing product and service innovations well in time, and front line problem solving (Buchanan, 1993). Management consultants have advocated team working as a religious Zeal (Proctor and Mueller, 2000).

### 1.4.2 Types of Team

There can be various types of teams within an organization For e.g. Natural Team (of which an organization is composed, including departments); Special Teams (constituted for some assignment for a specific time, known as Task Forces); Committees (ongoing or for a particular time to deal with certain issues); Project Teams (constituted to start and complete a particular task as a whole); Cross Functional/ Interdepartmental Teams (that goes beyond the original team of members). For all the teams the attention should be paid to function well (Pareek, 2002a). All teams have an ultimate goal of contributing towards the organizational team as a whole.

# 1.4.3 Team versus Group

Teams are different from traditional work groups (Jackson *et al.*, 2000). A group is consisting of two or more individuals interacting to share information and to make decisions to help each individual perform in his or her area of responsibility. But in a team, the ultimate goal is of collective performance and not mere information sharing as a group. A team generates positive synergy through coordinated efforts that results in the level of performance greater than the sum of individual inputs. This way the team base working increases the potential to generate greater output without increasing input. Moreover, unlike group there is not only individual accountability but also mutual accountability in a team. Furthermore in a team, the skill sets of members are complementary but not varied/random as in a group (Robbins *et al.*, 2009), (Figure 1.4).

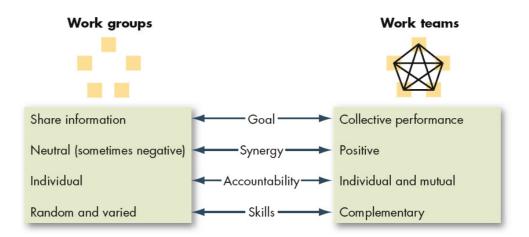


Figure 1.4: Difference between Group and Team (Source: Robbins et al., 2009)

#### **1.4.4 Effectiveness and Efficiency**

According to Koontz and Weihrich (2010), both Effectiveness and Efficiency in individual and organizational performance lead to productivity. While, Effectiveness is the achievement of objectives, Efficiency is the achievement of the ends with the least amount of resources. Drucker (1974 p. 45) said that "Effectiveness is the foundation of success - efficiency is a minimum condition for survival after success has been achieved. Efficiency is concerned with doing things right. Effectiveness is doing the right things". As per Drucker absence of efficiency (i.e doing the things right) may ruin a business, but when effectiveness (i.e. doing the right things) is lacking, the efficiency alone cannot assure success. Effectiveness in an organizational context refers to the degree to which the organizational team realizes its goals. The efficiency on the other hand is the unit of output produced against the given resources. Efficiency is more often determined with reference to cost and time. To do something with minimum expenditure of time, cost, energy etc., is known as efficient, while Effectiveness is not concerned what it takes, but to do it well. Therefore, Effectiveness deals with the excellence in achieving the same. Effectiveness is the assessment of how far and well the stated objective is achieved. In other words, Efficiency is concerned with quantity but Effectiveness deals with quality and it might include the concern for quantity as well.

# **1.4.5 Team Effectiveness**

Definition and concept of Team Effectiveness (TE) has been varied since decades (Humphrey *et al.*, 2010). McGregor (1960) and Likert (1961) focused attention on the team and suggested a few important characteristics of effective teams. Later, Dyer (1987) summarized the 11 characteristics as suggested by McGregor and 24 characteristics given by Likert, in terms of 10 characteristics, namely Commitment and Inspiring Goals; Role Clarity; Self-disclosure (including confrontation); Openness to feedback; Competence; Creativity with constructive conformity; Collaboration/support/trust; Congruence between individual and group goals; Supportive leadership and Management of Power (Pareek, 2002a; Pareek and Purohit, 2010).

Schein (1970) proposed that primarily, the function of a team is to meet organizational responsibilities and personal responsibilities simultaneously; and an effective team does so. In view of Nieva *et al.* (1978), TE is reflected from the goal directed behaviors, activities and functions accomplished by any team in performing its task. This definition is motivational in a

sense. In addition to it, TE is also denoted by success in meeting (or exceeding) organizational standards of quality and quantity; satisfying member needs and arising members' want to continue to work together on future tasks (Hackman and Oldham, 1980). Gladstein (1984) viewed TE in terms performance and satisfaction; Hackman (1987) considered it in terms of productivity i.e. the meeting of organizational expectations; and Sundstrom *et al.* (1990) viewed it as performance and viability. Subsequently, Cohen and Bailey (1997) argued that TE is composed of performance outcomes, attitudinal outcomes, and behavioral outcomes.

Pareek (2002a) gave the seven principles of effective teams as 'Respect and trust', 'Protection and support', 'Open dialogue and communication', 'Strong common goal', 'Shared values and beliefs', 'Subordinate the own objectives to those of the team' and 'Leadership'. Beal *et al.* (2003) suggested TE as per performance behaviors and performance outcomes; and Kozlowski and Bell (2003) addressed TE as a combination of internal (like satisfaction and viability) and external (like quantity and quality) measure. Fincham and Rhodes (2005) elaborated the common features of effective teamworking: Workers are responsible for reducing errors; programs for intensifying work; output and defects closely monitored; focus on motivational and behavioral factors such as security and advancement. While Rathan-Reddy (2005) viewed that shared goals and objectives, unitization of resources, trust and conflict resolution, effective interpersonal communications, approach to problem solving and decision making and creativity are the factors responsible for an effective team.

Robbins *et al.* (2009) presented the factors of an effective team in the form of a model based on Campion *et al.* (1996), Hyatt and Ruddy (1997), Cohen and Bailey (1997), Thompson (2000), and Hackman (2002). Here the key components leading to effective teams are categorized in four categories/variables: Contextual (i.e. the context in which the team works: resources, trust climate, leadership, and performance and reward system); Composition (i.e. the quality and quantity of members the team has: abilities, personalities, roles, diversity, team size and member preferences); Work Design (i.e. the kind of duties and responsibility allocation the team has: autonomy, skill variety, task identity and task significance); and Process (i.e. the systematic procedures and natural phenomenon with which a team operates and passes through to achieve its goals: common purpose, specific goals, efficacy, conflict levels and social loafing) (Figure 1.5, p. 26).

Thus there have been different perspectives of defining and studying TE. Moreover, a lot of ambiguity about TE definition has also been seen as no distinction is kept between productivity, quality, efficiency and speed, and the difference between backing up, assistance, cooperative support, and cooperative behavior is unclear too (all of these more or less remain forms of helping). TE alone can be studied with the use of any of the available TE Model. However, the concern of this study is to explore TE as a dependent variable. Therefore based on the predictor variable being used here, the focus will be more on behavioral constituents of TE. The subsection 1.4.7 (p. 27) discusses the constituents of TE being considered here.

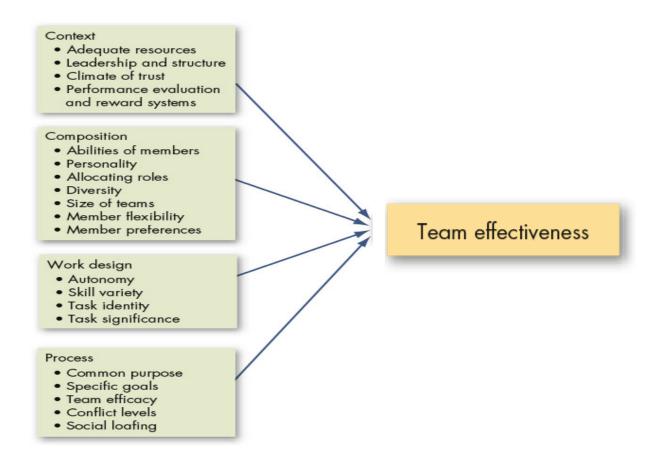


Figure 1.5: A Model of Team Effectiveness (Source: Robbins et al., 2009)

# 1.4.6 Team Building

Pareek and Purohit (2010) suggested various approaches of team building to enhance the team effectiveness. These include Johari Window Approach (free expression of self and increase sensitivity to need and orientation of other members); Role Negotiation Approach (discussing

what shall be continued, reduced, stopped or started to be performed by members); Team Roles Approach (setting the eight team roles as suggested by Belbin, (1981): Chairman/coordinator, shaper, plant, monitor-evaluator, company worker, resource investigator, team worker, complete finisher); Behavior Modification Approach (knowing styles and orientation of people and then increasing effectiveness by modifying personal behaviors); Simulation Approach (creating artificial teams to provide opportunity to experiment and learn in a less threatening contexts); Action Research Approach (i.e. Through the steps of data collection, analysis, action planning, implementation and evaluation); and Appreciative Inquiry Approach (emphasizing positive aspects, inspiring future dreams and appreciating positive qualities).

# 1.4.7 Constituents of TE for the Study

According to Pareek (2002b), TE may be understood in terms of three main characteristics of team functioning: cohesion, confrontation, collaboration; and four main characteristics of team empowerment: task clarity, autonomy, support and accountability. Thus, TE is a combination of these seven. The characteristics of both the dimensions of team functioning and empowerment are discussed below:

# 1.4.7.1 Team Functioning (TF)

# 1.4.7.1.1 Cohesion

It is the tendency to stick together and stay united in pursuit of goals and objectives regardless of difficulties and setbacks. Therefore cohesion is the persistence of being together inspite of setbacks. It also denotes the zeal to keep trust on others and respect the views of others rather than backbiting. Likewise, it is to keep the confidentiality of information shared by others and also to not misuse the same (Pareek 2002b). The members of an effective team recognize as well as appreciate member differences (Rocine and Irwin, 1994) and inspite of many setbacks they remain united. Team cohesiveness is when individual members perceive themselves as a part of the team rather than individuals and when members willingly show cooperative behavior and stay bind strongly together.

# 1.4.7.1.2 Confrontation

It symbolizes open, positive and healthy discussion on issues as and when the issues/problems arise. Thus it signifies facing rather than shying away from problems. An open and face to face

discussion on issues leads to better team functioning by reducing misunderstandings and unrest amongst the team members. In some sense it means putting up a front rather than putting one's back/to escape problems. An effective teamwork can be realized in an atmosphere permitting the flourishing of new ideas, formulations, ways and means (Gurol, 2007). Through confrontation the new ideas can be flourished and new ways can be devised. Every team member should promote constructive confrontation instead of destructive conflict. It is to face the problem and to solve it working jointly with others (Pareek 2002b). Hoover and DiSilvestro (2005) defined the phenomenon of constructive confrontation as "a structured, systematic approach that decreases conflict and increases accountability by connecting the dots between what people want and what organizations need".

#### 1.4.7.1.3 Collaboration

Collaboration symbolizes the smooth flow of communication which enhances the exchange of help and voluntary task sharing. Hence with increased collaboration, the team members can ask for any sort of help and can divide the tasks into further small groups with the other members. Therefore it means to give and to ask for help to/from others. It symbolizes the team spirit to work together and solve problems. While collaborating, members don't feel hesitate to ask for help and also they are not reluctant to volunteer for providing help (Pareek 2002b). The collaborative climate with competent members and the process of feedback and reinforcement of individual progress increases the effectiveness of the teams (Johnson and Johnson, 1995).

#### **1.4.7.2 Team Empowerment (TEmp)**

# 1.4.7.2.1 Task Clarity

Task clarity means that the members know clearly "what is to be done and who is to do that". It escapes the members from unnecessary debate or confusion about the main tasks of the team. It provides the aptitude to focus work on the front, where without it members are likely to indulge in unnecessary negotiations about their roles. Moreover, it also symbolizes the sense of clarity about their respective individual roles and tasks to the members. Furthermore it denotes that members are clear about how to work towards their team goal (Pareek 2002b). Mohammed and Dumville (2001) stated that team performance is greater when there is task clarity with all task relevant information (because of greater communication and coordination).

#### 1.4.7.2.2 Autonomy

It means the degree to which a job provides discretion and independence to schedule own work and determine own way of working. Lee *et al.* (2011) considered autonomy as an important component of Entrepreneurial Orientation which is an essential attribute of high performing firms. Autonomy represents an independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion. Autonomy provides a person the right to determine his own way of performing the assigned duties. With such freedom, the person takes responsibility of performing well and puts extraordinary efforts. Without autonomy, members may feel helpless and restricted to dispose their duties effectively. Hence it is to use and to give freedom to plan and act in one's own sphere (Pareek 2002b). It increases the willingness to assume responsibility. Ehlen (1994) suggested that in order to create an effective team, the manager should facilitate shared understanding, shared responsibility, mutual influence and task autonomy.

#### 1.4.7.2.3 Support

In addition to the availability of sufficient material and human resources (means no lack of human resources and financial resources), Support also symbolizes the conducive and favorable environment within the team. A leader allocates responsibilities and resources for the accomplishment of the tasks (Bhal and Asari, 2007). With enough support, the members don't hesitate to assume accountability for performing their duties as they know that all needed resources are present with them (Pareek 2002b). According to Kim *et al.* (2009), the participative approaches (like higher perceived organizational support) reduce the resistance of employees to adapt to changing requirements in the organization and the higher support levels constitutes towards better performance. Effective team has active work related support (Kellett, 1993). Support promotes a sense of integration and this in turn provides mutual facilitations for the deeds of team members (Erez *et al.*, 2002). Moreover, a kind of emotional support has to be there that members move in the right direction in the pursuit of their team/organizational goals.

#### 1.4.7.2.4 Accountability

The willingness or compulsion to accept responsibility for one's actions related to tasks. It proposes that the team needs to communicate accountability and take responsibility as a unit for actions. Accountability is needed to measure the true extent of achievements and progress of

tasks; therefore effective team makes members individually and jointly accountable for team's overall purpose, goals and approach. Accountability in teams helps in assessing the task against goals and it also helps in preventing the misuse of autonomy and support. Reallocation of responsibility to a lower level is a vital element for successful team empowerment (Cunningham *et al.*, 1996). Such relocated responsibility always has an associated accountability for which the authorized person is answerable. In order to fetch accountability from sub-ordinates, their motivational needs must be recognized by the leader (Bhal and Ansari, 2007).

These characteristics/factors contribute towards the TE. They are not mutually exclusive, rather there are inter-linkages between these factors and dimensions. The TE constituents for the study are visualized in Figure 1.6.

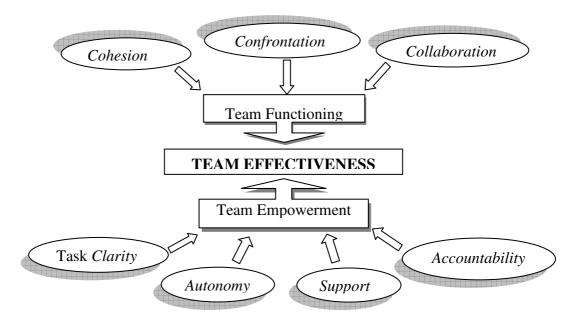


Figure 1.6: Visualization of TE Constituents for the Study

# **1.5 RATIONALE AND SIGNIFICANCE OF THE STUDY**

Since there are individuals in the team, there must be influence of each team members' particular set of individual characteristics on the team effectiveness (Guzzo and Dickson, 1996; English *et al.*, 2004). Good team work calls for recognition of valuable personality attributes of members to use them constructively in good faith of organizational team (Dhar *et al.*, 1999). The model of team effectiveness (Figure 1.5, p. 26, Robbins *et al.*, 2009) also puts forward a

category of variable i.e. "Composition". The contributory elements in it are member abilities, personalities, roles, diversity, member preferences and team size. It symbolizes that member abilities, personalities, preferences influence the team effectiveness. Hence, is becomes significant to examine whether such an association of individual characteristics (such as member styles and motives) and TE exists? If yes, then which member styles and motives are prominently associated with the effectiveness of their team? Therefore this study is a pioneering initiative to investigate whether and to what extent member characteristics like decision making style and motive/need pattern affect the team effectiveness in Indian contexts. The chosen functioning and empowerment dimensions of TE and their constituents are behavioral and related to individual member inputs. Hence styles and orientations may be assumed to affect the two.

Robbins *et al.* (2009) mentioned that people join groups for Security, Status, Self-esteem, Affiliation, Power and Goal achievement. These five more or less remain the motive of team members and thus may bear a relationship with the TE. Moreover, the styles of decision making of people could be different, and each style might affect TE differently. Research suggests that there are different roles needed in a team and hence people with appropriate styles and preferences should be matched to fit in the roles (Margerison and McCann, 1990). This again establishes the importance of member styles and orientations for fulfilling desired role in the team and to achieve effectiveness in attaining the objectives. Moreover, working executives are members of their organizational team. They bear perceptions about their working team/organization. Their experience with the teams and their perception has an important role in deciding their future association with that team. Thus it becomes significant to know how they perceive their teams. Although the perception might vary from individual to individual; but perceptual measures of TE are well accepted. Henceforth, the purpose of this study is to measure what are the average styles and motives of executives in India and how they affect their TE. The study would supply literature and implications on the variables.

# **1.6 SCOPE OF THE STUDY**

The study will cover executives (senior, middle and junior) of Indian Organizations from both public and private sector. Inspite of the existing various other styles and motives, the concern here will remain only with the discussed styles (i.e. Rational, Intuitive, Dependent, Avoidant and Spontaneous) and motives (i.e. nAch, nAff, nPow and nSec). Likewise, despite the availability of various TE models, here only the discussed Team functioning (Cohesion, Confrontation and Collaboration) and Team empowerment (Task Clarity, Autonomy, Support and Accountability) constituents will be considered. The variables (GDMS, NP and TE) will be studied independently as well as in the proposed association i.e. GDMS and NP as predictors of TE. For the study of each variable separately, the descriptive statistics and the differences across the attributes like age, education, level and industry, will be explored. To test the proposed association, the TE will remain the dependent/criterion variable; and GDMS and NP will be treated as independent/ predictor variables. Each individual style and motive will be tested for its predictive association with TE.

#### **1.7 OBJECTIVES AND RESEARCH QUESTIONS OF THE STUDY**

The following are the objectives (O) and the relevant research questions (RQ):

O1: To study the general decision making style of executives in select Indian Organizations.

 $RQ_1$ : Which decision making styles are being followed by Indian executives?

 $RQ_2$ : Do various decision making styles vary across attributes like age/tenure, education, industry, etc.?

O2: To study the need pattern of executives in select Indian Organizations.

**RQ**<sub>3</sub>: Which needs or motives are prevailing in Indian executives?

 $RQ_4$ : Do various motives/needs vary across attributes like age/tenure, education, industry, etc?

O3: To study the team effectiveness of executives in select Indian Organizations.

**RQ**<sub>5</sub>: How much is the Team Effectiveness of Indian executives?

*RQ*<sub>6</sub>: Is there any variation of Team Effectiveness across attributes like age/tenure, education, Industry, etc.?

**O4**: To study general decision making style and need pattern as predictors of team effectiveness.

O4a: To study the general decision making style as predictor of team effectiveness.

**O4b**: To study the need pattern as predictor of team effectiveness.

 $RQ_7$ : Whether the styles and motives predict/relate to Team Effectiveness?

 $RQ_8$ : Which decision making style predicts/relate to Team Effectiveness?

*RQ*<sub>9</sub>: Which motive predicts/relate to Team Effectiveness?

**O5**: To open new vistas of research.

 $RQ_{10}$ : What prospective research insights can be advanced from the present study?

# **1.8 CHAPTERIZATION**

**Chapter 1** provides the introduction to the study and its variables. It also highlights the Rationale, Scope, Objectives and Research Questions of the study. **Chapter 2** presents the extensive literature review on the independent and dependent variables and their associations. It justifies the choice of variables, discusses the relevant literature and ends with the representation of proposed relationships amongst the variables. **Chapter 3** incorporates the research methodology and describes the research design, the hypotheses within the objectives, the approaches to accomplish the objectives, the sample, and the data collection and analysis tools and techniques. **Chapter 4** reveals the analysis and the results of the hypotheses. It also presents the comparison of original and alternate models. **Chapter 5** deals with the discussion on the obtained results. Hence it renders the accomplishment of the objectives and also presents a sub section on qualitative support for the results. **Chapter 6** highlights the conclusion and the implications of the study. **Chapter 7** renders insights into the limitations and the scope for future research. Thereby it opens the new vistas of research.

# **1.9 CHAPTER SUMMARY**

The concepts discussed in the chapter particularly included- decision making (DM), decision making style (DMS), General Decision Making Style (GDMS), Rational DMS, Intuitive DMS, Dependent DMS, Avoidant DMS, Spontaneous DMS, Motivation, Needs or Motives, Need theories, Need Pattern (NP), Need for Achievement (nAch), Need for Affiliation (nAff), Need for Power (nPow), Need for Security (nSec), Team and Team work, Types of Teams, Team v/s Group, Effectiveness and Efficiency, Team Effectiveness (TE), Team Building, Team Functioning (i.e. Cohesion, Confrontation, Collaboration) and Team Empowerment (i.e. Task Clarity, Autonomy, Support, Accountability). In the end, the Rationale and Significance, Scope, Objectives and Research Questions, and the Chapterization were discussed. Decision making is a crucial activity for every organization and it is the most important function of every executive. As per the social perspective, there are five important DMS (based on the dimensions of information gathering, processing and evaluation) - Rational, Intuitive, Dependent, Avoidant and Spontaneous- adopted by individuals during making important

decisions. Scholars have identified four important secondary psychological motives- security, achievement, affiliation and power – that are acquired by individuals over time. The study of these four has become pivotal in organizational researches. Individuals combine to form teams and every organization can be visualized as a team of employees working for a common goal. In the contemporary world, "effectiveness" is the prime concern for all organizations and researchers. Despite the availability of many team effectiveness models, it is important to conceptualize TE as the combination of interactional functioning constituents and empowering task functions. Different DMS and needs are assumed to affect this team effectiveness differently. The aim of current research is to study the GDMS, NP and TE of Indian executives, and to diagnose the relationship of GDMS and NP with TE. While attaining the objectives, many research questions will be answered.

# LITERATURE REVIEW

The previous chapter discussed the concepts related to the variables of this study; this chapter begins by highlighting the process of selecting the predictor variables to predict the criterion variable. Further, as per the research questions of this study (not only identifying the predictive association but also exploring the GDMS, NP and TE independently), it incorporates the research findings on the constituting factors of the variables and those reflecting the association of independent variables. Finally, the proposed relationships are shown.

# **2.1 INTRODUCTION**

Mathieu *et al.* (2008) reviewed TE studies of a decade (1997-2007) in the context of an enhanced IPO (Inputs-Processes-Outcomes) framework (McGrath, 1964). This enhanced framework is IMOI (Inputs-Mediators-Outcomes-Inputs) time-sensitive approach of Ilgen *et al.* (2005). McGrath's (1964) IPO framework (Figure 2.1) has Inputs as antecedent factors that enable and constrain the members' interactions, it includes individual team member characteristics (for e.g. competencies, personalities), team-level factors (for e.g. task structure, external leader influences), and organizational and contextual factors (for e.g. organizational design features, environmental complexity). The input antecedents combine to drive team processes are important because they describe how team inputs are transformed into outcomes (Mathieu *et al.*, 2008).

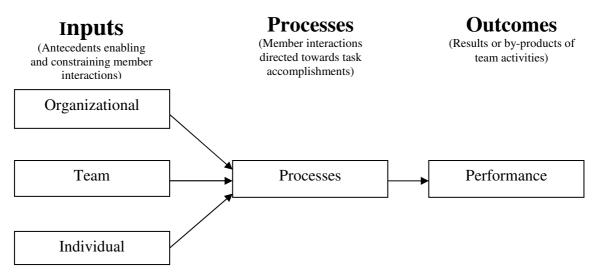
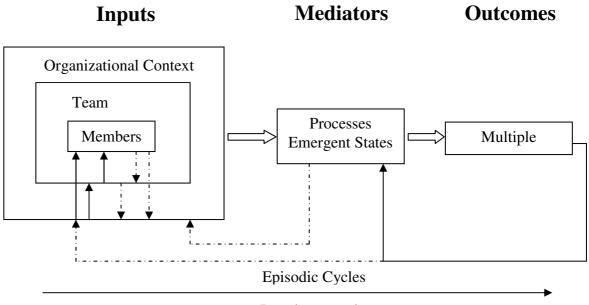


Figure 2.1: IPO Team Effectiveness Framework (Source: Mathieu et al., 2008)

The IPO framework failed to distinguish the processes and outcomes as Ilgen et al., (2005) noted that not all intervening factors are processes but mediators, hence they proposed IMO (Inputs-Mediators-Outcomes) instead of the IPO (Mathieu et al., 2008). IMO (Figure 2.2) incorporates processes (members' actions) as well as emergent states (cognitive and affective states e.g. potency, efficacy) and here the mediators and outcomes are considered to be interrelated. Moreover, in appreciation of temporal dynamics in teamwork, the two more prominent approaches added in the model namely- developmental processes and episodic cycles. Developmental processes indicate qualitative changes in teams over time (Kozlowski et al., 1999) and episodic cycles reflect different processes can be executed at different times, depending on task demands that recur in a cyclical fashion (c.f. Marks et al., 2001; McGrath, 1984). Episodic cycle resemble the feedback loops, Ilgen et al. (2005) therefore turned to address IMO as IMOI (Inputs-Mediators-Outcomes-Inputs) and this ultimately represent the inherent cyclical nature of team functioning. The solid line from outcomes to subsequent mediators suggests that feedback is quite influential, whereas the dashed line suggests that outcomes and processes influences on subsequent inputs would likely be less potent (Mathieu et al., 2008). It means that the influence of team outcomes or mediators on subsequent member composition, team structure, organizational contextual factors, or other inputs, is likely to be less immediate or compliant.



Developmental

Figure 2.2: IMO Team Effectiveness Framework (Source: Mathieu et al., 2008)

The multiple criteria in outcomes actually indicates that TE criterias have become complex over the past years to include many different forms e.g. performance outcomes, behavioral outcomes and attitudinal outcomes (Cohen and Bailey, 1997), creativity, customer service, improved processes, effectiveness in team work and task work, and combinations (Mathieu *et al.*, 2008). Moreover, the mediator and outcomes are seen interrelated that even the effectiveness is being measured in the form of effective processes and emergent states like team empowerment, cohesion, and collaboration etc. for e.g. Pareek (2002b). IMOI and IPO frameworks emphasize the importance of individual inputs to affect mediators and outcomes. It attracts the researcher to explore the standard sets of prospective affecting input variables. The constituents of individual inputs /compositional attributes and the reason behind the selection of specific attributes for this study have been discussed in the next sub section.

# 2.1.1 Selection of Compositional Attributes

McGrath *et al.* (1995) developed five categories of compositional attributes for diagnosing the type of diversity in the team i.e. 1. Demographic attributes; 2. Task-related knowledge, skills, and abilities; 3. Values, beliefs, and attitudes; 4. Personality and cognitive and behavioral styles; and 5. Status in the work group's organization. Mannix and Neale (2005) felt these five fairly are exhaustive but somewhat imperfect. They presented McGrath's categorization with a few adaptations as shown in Table 2.1; herein the personality differences category incorporates cognitive style, affective disposition and motivational factors to study in compositional research.

| Category  | Attributes                               |
|---|--|
| Social-category differences                     | Race, Ethnicity, Gender, Age, Religion,  |
|   | Sexual orientation, Physical abilities   |
| Differences in knowledge or skills              | Education, Functional knowledge,         |
|   | Information or expertise, Training,      |
|   | Experience                               |
|   | Abilities                                |
| Differences in values or beliefs                | Cultural background, Ideological beliefs |
| Personality differences                         | Cognitive style                          |
|   | Affective disposition                    |
|   | Motivational factors                     |
| Organizational- or community-status differences | Tenure or length of service, Title       |
| Differences in social and network ties          | Work-related ties, Friendship ties,      |
|   | Community ties, In-group memberships     |
|   |  |

Table 2.1: Compositional attributes (Based on McGrath, 1995 and Mannix and Neale, 2005)

Ross *et al.* (2008) identified that TE is a function of Performance (P), Behavior (B), Attitude (A), Member Style (M) and Corporate culture (C). The member style (cognitive and social) was given highest weightage in their theoretically developed empirical framework. The authors acclaimed that this framework will help in selecting individual team members to enhance team performance and suggested that future research should examine the impact of individual attributes on TE and should investigate how the individual's characteristics influence TE and that what should be the standard variables to measure Member style, Performance, Behavior, Attitude, and Corporate Culture.

Mathieu et al. (2008) highlighted that researches on member compositional inputs have been focused on two models- Compositional models and Compilation model. Herein the compositional model has two approaches- Mean Values and Diversity. Mean value research treats the average of members attributes (regardless of its dispersion in the team) to diagnose its impact on TE and Diversity approach considers the heterogeneous composition of the team to explore the effects on TE. Both mean value and diversity researches have focused on Personality attributes for e.g. Mean Value Research considering attributes like average level of achievement orientation, dependability (LePine, 2003), assertiveness (Pearsall and Ellis, 2006), locus of control (Boone et al., 2004), conscientiousness and agreeableness (Halfhill et al., 2005), conscientiousness, agreeableness, extraversion, emotional stability, and openness (Bell, 2007); and Diversity Research based on features like team extraversion (Mohammad and Angell, 2003; Neuman et al., 1999), emotional stability (Neuman et al., 1999), agreeableness & neuroticism (Halfhill et al., 2005) and member's time urgency (Mohammad and Angell, 2004). Volmer and Sonnentag (2011) investigated the predictive relationship of member expertise towards team performance (measured in terms of technical quality, compliance with time schedule, compliance with cost schedule, a number of innovations, coping with unexpected incidents, and quality of customer relations) and found that expert members contribute towards the higher team performance. The researchers acknowledged that it is conceivable that interactions exist between expertise and personality.

Drawing on Mannix and Neale (2005), Ross *et al.* (2008), Mathieu *et al.* (2008), and Volmer and Sonnentag (2011), the consideration of cognitive style and motivational factors (i.e. Personality attributes) seemed justifiable to be incorporated in this study. Further, the standard

frameworks to select the factors of cognitive styles and motives were reviewed. Scott and Bruce's (1995) five general decision making styles (GDMS) i.e Rational, Intuitive, Dependent, Avoidant and Spontaneous being most empirically supported were taken up as standard framework to measure cognitive styles/DMS. The main motives of people to join the group are Security, Status, Self-esteem, Affiliation, Power and Achievement (Robbins *et al.*, 2009). Hence four socially acquired psychological/secondary motives namely nAch (need for achievement), nAff (need for affiliation), nPow (need for Power) and nSec (need for security) based on Sanghi (1998), Luthans (2002, 2008), and Pareek and Purohit (2010), were incorporated in the current study.

### 2.1.2 Selection of Team Effectiveness Framework

Since the personality attributes most often determine the ways of work execution and the interactional patterns of individuals with others, the focus of selecting TE criterias remained subjective (for e.g. level of cohesion, collaboration, task clarity, autonomy etc.) rather than objective (for e.g. profits, unit outputs, etc.). TE framework of Pareek (2002b) was finalized because it measures TE on two dimensions of team functioning and team empowerment that evaluates the effectiveness of team processes and emergent states. Both empowerment and functioning effectiveness in combination render overall TE and influence of compositional attributes on these is expected.

### 2.1.3 Flow of literature review

Sections ahead will incorporate studies and findings related to the variables of this study. In addition to the studies discussing the variables independently, those directly or indirectly highlighting the association of predictor and dependent variable will also be incorporated into the sub-sections. Section 2.2 will highlight GDMS based studies/findings and will be followed by subsection 2.2.1 on studies/findings relevant to the association of factors of GDMS and performance/effectiveness. Section 2.3 will present the studies/findings on NP and will simultaneously mark out the views on relationship of various needs with effectiveness and performance outcomes. Section 2.4 will discuss studies/findings on TE directly or indirectly relevant to constructs of this study. It will also highlight the literally attribution about the constituents of TE being considered in the study. Summaries and tabular formats will be incorporated for easy understanding of the literature on the variables.

# 2.2. STUDIES ON GENERAL DECISION MAKING STYLE

As mentioned in the earlier chapter GDMS framework was suggested by Scott and Bruce (1995) and it is a trusted measure for studying decision making style (DMS) of individuals. Table 2.2 highlights the studies purely based on GDMS as well as those utilizing the GDMS framework since 1995 till 2011.

| Authors               | Sample                                 | Main Findings  |
|-----------------------|--|--|
| Scott and             | 1943 samples                           | GDMS was constructed and validated, Spontaneous  |
| Bruce                 | inclusive of students,                 | style emerged in addition to four other styles.  |
| (1995)                | engineers, technicians                 | Mutual correlations included-Positive: Intuitive &                                     |
|                       | and soldiers                           | Spontaneous, Dependent & Avoidant;   |
|                       |  | Negative: Rational style negatively correlated to                                      |
|                       |  | the Intuitive, Spontaneous, and Avoidant style.  |
|                       |  | Concluded that styles are conceptually different but                                   |
|                       |  | mutually inexclusive.  |
| Russ <i>et al</i> .   | First-level sales                      | Intuitive, dependent and spontaneous DMS had no  |
| (1996)                | managers, their                        | effect on managerial performance, whereas  |
|                       | superiors, & over 400                  | Rational style had a positive and avoidant style had                                   |
|                       | sales representatives                  | a negative impact on managerial performance.   |
| Loo (2000)            | 223 management                         | Affirmed validity of GDMS; Mutual correlations   |
|                       | undergraduates                         | included <b>Positive</b> : Rational & Dependent, Intuitive                             |
|                       |  | & Spontaneous, Intuitive & Dependent.  |
|                       |  | Negative: Rational & Avoidant, Rational &  |
|                       |  | Spontaneous; Moreover Rational style positively  |
| Tamba and             | 08 officers of a large                 | correlated with social desirability scale.   |
| Tambe and<br>Krishnan | 98 officers of a large                 | Rational DMS alone and alongwith Dependent<br>DMS had significant correlation with the |
| (2000)                | manufacturing<br>organization in India | DMS had significant correlation with the Transformational Leadership.                  |
| Thunholm              | 206 Swedish Military                   | Rational, Dependent and Avoidant were predicted  |
| (2004)                | officers                               | by the Self-esteem Scales (Forsman and Johnson,  |
| (2004)                | officers                               | 1996) and by the Action Control Scales (Kuhl,  |
|                       |  | 1994). Concluded that DMS is not mere an   |
|                       |  | indicator of habits and thinking practices, but also it                                |
|                       |  | involves basic self-evaluation and self regulation,                                    |
|                       |  | i.e. the general ability to initiate and maintain                                      |
|                       |  | intentions.  |
| Spicer and            | Two samples from                       | Five factor model of GDMS was confirmed.   |
| Sadler-               | UK (business studies                   | Rational and Intuitive style are alternative ways of                                   |
| Smith                 | undergraduates).                       | approaching a problem, hence individuals should  |
| (2005)                |  | ideally balance rational and intuitive decision  |
|                       |  | making. Nature of dependency determines the  |
|                       |  | goodness or badness of dependent style.  |
|                       |  |  |
|                       |  |  |

Table 2.2: The studies using GDMS framework (1995-2011)

| Author                                     | Sample  | Main Findings  |
|--|---|--|
| Bruine de                                  | 106 from social   | Assumption1: rational and intuitive DMS will relate  |
| Bruin <i>et al.</i><br>(2007)              | service and<br>community groups in<br>greater Pittsburgh<br>metropolitan area | positively with ADMC (Adult decision making<br>competence) as rational (Crossley and Highhouse,<br>2005; Leong and Morris, 1989; Russ <i>et al.</i> , 1996)<br>and intuitive (Crossley and Highhouse, 2005) styles<br>have been effective & positively related to career<br>outcomes. Assumption2: other styles will<br>negatively relate to ADMC based on Loo (2000),<br>Russ <i>et al.</i> (1996) and Singh and Greenhaus (2004).<br>Results affirmed assumptions except for Dependent |
| Parker <i>et al.</i> (2007)                | 360 from social<br>service and<br>community groups,<br>Pittsburgh area        | style (not correlated with ADMC).<br>Maximizers/too rational people (i.e. those who<br>gather more and more information before decision<br>making) were more involved in avoiding decisions<br>which reduced their effectiveness, had greater<br>dependence on others, and were spontaneous.   |
| Gambetti <i>et</i><br><i>al</i> . (2008)   | 422 students of<br>University of<br>Bologna                                   | The GDMS scale was found satisfactorily reliable<br>and internally consistent. Mutual correlations<br>amongst the styles <b>Positive</b> : Avoidant &<br>Spontaneous, Avoidant & Dependent, Intuitive &<br>Spontaneous, Rational & Dependent; <b>Negative</b> :<br>Rational & Spontaneous, Rational & Intuitive.   |
| Thunholm<br>(2008)                         | 23 Swedish Army   | The author hypothesized dependent and the avoidant styles to be accompanied by increased levels of negative stress, while the remaining 3 styles not. Moreover the author also argued that rational and intuitive styles are part of the cognitive style concept, whereas the conceptual foundation of the remaining 3 styles is less clear. The avoidant style related to negative stress and avoidant officers were found worried.   |
| Hablemitogl<br>u and<br>Yildirim<br>(2008) | 263 university<br>students in Turkey  | Adapted items from GDMS (except those of<br>Spontaneous style) to understand individual<br>differences in Turkish youth with respect to<br>decision-making styles and perception of risk. The<br>dormitory resident students were more rational and<br>the authors addressed them as more efficient<br>decision makers. Rational and Avoidant styles<br>related in females, while Rational and Intuitive<br>styles related in males.   |
| Baiocco <i>et</i><br><i>al.</i> (2009)     | 700 adolescents (aged 15-19 years)  | Examined psychometric properties and construct<br>validity of GDMS and confirmed a five-<br>dimensional structure of the scale. Here, the elder<br>adolescents reflected more rational but less<br>intuitive, avoidant and spontaneous style. However<br>no differences with respect to gender were found.   |

| Author                           | Sample  | Main Findings   |
|----------------------------------|---|---|
| Rotbring<br>(2010)               | 60 commercial<br>aviation pilots  | Examined the relation between GDMS, non-<br>technical skills and experience-based decision-<br>making. Rational style predicted high non-technical<br>skills i.e. systematic, analytical and normatively<br>correct behavior in a cockpit decision-making<br>situation. Intuitive & spontaneous style correlated<br>positively, and Intuitive style & experience-based<br>decision-making correlated negatively. The<br>researcher suggested that the more the decisions are<br>based on intuition and feelings, the less the<br>decisions are based on experience.   |
| Gati <i>et al.</i><br>(2010)     | 2764 young adults   | To propose an alternative, multidimensional model<br>for characterizing career decision-making<br>performed systematic analysis and located 40<br>decision making styles inclusive of the 5 GDMS.<br>Further they classified each of these 40 styles into<br>one of 16 prototypes. For e.g. the "rational"<br>prototype included logical (Arroba, 1977), rational<br>(Harren, 1979), thinking (Walsh, 1986), and<br>economic man (Simon, 1957). Except Spontaneous,<br>rest all four styles became 4 conceptually different<br>prototypes out the 16.   |
| Leykin and<br>DeRubeis<br>(2010) | Study 1=301<br>undergraduates from<br>the University of<br>Pennsylvania<br>Study 2=162 people<br>recruited from an<br>anonymous paid<br>online subject pool | Constructed an instrument with an aim to measure a<br>variety of decision-making styles and also the<br>respondent's view of him or herself as a decision-<br>maker (decisional self-esteem). GDMS and other<br>literature supported styles were used. The higher<br>depression severity were found being more anxious<br>about decisions, and more likely to procrastinate<br>(i.e. Avoid). Here the dependent style (i.e.<br>depending more on other people seeking help in<br>decisions) was viewed as productive decision-<br>making strategy but less reliance on intuitions (i.e.<br>lesser intuitive style) was advised. |
| Salo and<br>Allwood<br>(2011)    | 203 Swedish police<br>investigators   | High Avoidant style and Dependent style were<br>associated with higher performance based self<br>esteem, higher perceived stress and poorer sleep<br>quality. Avoidant style was associated with lower<br>satisfaction with life. Furthermore dependent as<br>well as avoidant style were associated with higher<br>influence experienced by others in the investigative<br>work. Male respondents reported higher rational<br>while female reported higher dependent DMS.  |
| Khasawneh <i>et al.</i> (2011)   | 95 dept. chairs in<br>three public<br>institutions in Jordan  | Rational style was primary and dependent style was<br>backup. No significant differences between styles<br>on the basis of faculty and experience were found.   |

**Summary:** Table 2.2 indicates that since its inception (i.e. 1995), GDMS has been validated so many times and its five factor structure and internal consistencies as well as reliabilities have been confirmed. Moreover, there have been mutual correlations amongst the styles but conceptual differences exist. Rational style is considered as socially desirable, associated positively with better outcome, with managerial performance and is systematic; Intuitive style is also advocated when used in balance to rational style; Dependent style is attributed to increase quality of decisions with inclusion of inputs from others but it is detrimental too; Avoidant style is related to negative outcomes like delays, depression etc. and it relates negatively with managerial performance; and Spontaneous style is positively linked to intuitive style and thus attributed as deciding all of sudden without thinking. Another noticeable part is that samples of the studies on GDMS have rarely been executives and mostly the studies using GDMS have been conducted on students, military people, adolescents, social servers, faculties and pilots. A decade ago, Tambe and Krishnan (2000) studied DMS of Indian officers in relation to their leadership style. The use of GDMS framework by other researchers on Indian executives in recent times is not evident.

# 2.2.1 THE STYLES AND EFFECTIVENESS/ PERFORMANCE STUDIES

This section highlights the views on the five styles (Rational, Intuitive, Dependent, Avoidant and Spontaneous) of decision making that have been considered in varied researches in the last fifteen years. Towards the end of this subsection, the views will be summarized and the crux will be presented.

Goll and Rasheed (1997) in a study on 62 manufacturing firms in the USA investigated the relationship between process rationality and organizational performance with the moderating roles of environmental munificence and dynamism. It was found that rationality is strongly associated with performance in environments high in munificence (growth prospects with abundant resources) and dynamism.

Harrison and Horne (2000) presented a subsection on naturalistic decision making (NDM) that describes decisions as spontaneous reactions to real events. Here the decision maker is put in a realistic context of crisis resolution and handling uncertainty and decisions rely on the rapid identification of applicable rule-based strategies through an evaluation of the similarities between previous experience and the current situation. It works on recognition-primed decision

model i.e. RPD (Klein, 1993, 1997). Thus RPD model works by the match of situational variables with pre-rehearsed scenarios or training exercises that trigger the typical course of action. For instance over 90% of critical decisions taken by offshore installation managers (oil and gas industry) followed the RPD style (Flin *et al.*, 1996). Thus extreme profiles like naval officers, army officers, fire fighting in charges, pilots, etc. are trained of RPD. It suggests that the spontaneous style is also related to working effectiveness where NDM views decision makers as not naïve experimental participants but expert and trained operatives. However, the Spontaneous style was also found related with undecidedness in career on a sample of college students enrolled in introductory psychology (Osipow and Reed, 1985).

Anderson (2000) hypothesized that decision making behavior based on intuition and supported by thinking style is related to effectiveness. The association was tested on 33 Swedish managers. The DMS was measured with the assumption that the respondents will behave in a particular way during problem solving and decision making. The effectiveness was measured by using secondary data from departments and organizations for which the managers were responsible. The intuition with thinking was 6.7 times stronger related to effectiveness compared with other DMS. Also the intuition was 3 times as strongly related to effectiveness as compared to other styles that managers have (based on eight DMS by Keegan, 1984: Intuition with thinking, intuition with feeling, thinking with intuition, thinking with sensing, sensing with thinking, sensing with feeling, feeling with sensing and sensing with intuition, where sensing and intuition are perception function and thinking and feeling are judgement/decision making function).

Flood *et al.* (2000) in a study on 79 technology firms in the US and Ireland found that avoiding decision making and supervisory responsibility (i.e. Laissez faire leadership style) relate negatively to team effectiveness. It attributed that increase in an avoidant decision making style leads to decrease in team effectiveness. Another finding of the study is that the consensus decision making (when members decide in consultation as well as together) was found significant predictor of perceived team effectiveness.

Augier (2001) elaborated Simon's concept of bounded rationality and mentioned that the rational decision making model describes how business executives should take a decision to enhance their productivity. Bounded rationality is the process extracting the solutions for given

problems without getting involved into different complexity. It attributes that executives should take rational decisions and they may adopt bounded rationality for making their final alternatives and decisional choices.

Patton (2003) advocated that emotional-irrational and intuitive-non-rational decisions are mutually different. Intuition helps in responding to crisis, when there is great complexity of large volume information processing and in decisions with an element of uncertainty. Intuition can be interpreted on a continuum ranging from purely emotional/ irrational reaction to the analytical reasoning about the options on the basis of learning and experiences resulted from related issues. In between the combinations of the two are present (Burke and Miller, 1999; Bonabeau, 2003; Klein, 2003). In Patton's view, it is a fallacy to contrast analytic and intuitive styles of management decision making. With a lack of adequate data for decision making, managers have to choose either the best decision on the basis of available information using considerable intuitive judgement or delaying the decision while gathering more and more data. Managers should adopt the right mix from the continuum.

Sadler-Smith and Shefy (2004) in their paper advocated the use of intuition when outcomes are difficult to predict through rational means and uncertainties are involved, when ambiguities prevail and inspite of complexities the executives have to respond in pragmatic, intelligent and fast ways, and when the executives recognize the potential of the correctness of their intuitive judgements.

Parker *et al.* (2007) view that depending on others while making decisions also affects the quality of decisions and ultimately the effectiveness. While good advice can improve decisions' quality, consultation can also undermine effective DM by encouraging unrealistic aspirations, focusing attention on readily quantified outcomes, and revealing contradictory advice. Iyengar *et al.* (2006) and earlier Schwartz *et al.* (2002) also observed that maximizers (too rational) decision makers depend on others for obtaining information. Moreover, dependent style has also been attributed as damaging in the early stage of the decision making process (Phillips *et al.*, 1984b). As per Argyropoulou and Sidiropoulou (2003), if someone assigns the decision-making responsibility elsewhere, the responsibility of coping with the consequences of any decision still remains with oneself. The dependent decision maker being

participative fetches favorable reactions from superiors and subordinates but being incapable produces a negative response.

Dane and Pratt (2007) proposed that Intuition in a holistic way may actually help to integrate the contrasting elements of an ill-defined problem into a coherent perception of how to proceed. Under few conditions intuition may be effective in organizational decision-making, but the mere use of intuition is not a universal remedy for the speed-accuracy trade-off because it may facilitate speed at the expense of accuracy.

Vasconcelos (2009) presented a breakthrough to the notion that only the rational approach works like a panacea for all managerial problems. As per the author, Rational weighing of options has a drawback that it presupposes to apply current models in totally different circumstances of future. The paper mostly focuses on proposing the best solution through integrated decision-making approach. In approaching the conclusion, the author review the orthodox view (Rational) and heterodox view (Intuitive/non rational) and propounds that intuition has been regarded as a convincing managerial tool when coupled with more rational decision-making processes. Therefore, decision-making might be more efficient if it preserves the strengths of each approach whenever it is necessary. The conclusion implies that both forms of decision processes (e.g. Rational and non-rational analysis) might coexist perfectly in an integral frame. Thereby an integrated framework has been suggested.

Elbana and Naguib (2009) on a sample of 286 Egyptian managers studied the influence of firm performance and organizational effectiveness (OE) on three dimensions of the strategic decision-making process: rationality, intuition, and political behavior. They found that strategic decision-making in high-performing firms were more rational and less intuitive and political. Also, they obtained relation between organizational effectiveness and the rational, intuitive and political dimensions, where organizational effectiveness predicted the three.

Kalantari (2010) through a theoretical paper revitalized Simon's contribution on decision making. The author reviewed that decision makers involve in "satisficing" decisions due to the limited knowledge and lack of proper procedural rationality. Therefore a limited degree of rationality can be exercised by the human mind. This is the bounded rationality model of Simon; it proposed that decisions are not completely rational always, as the decision maker

cannot have perfect control of environmental and mental abilities. However, the expected utility model (Von and Morgenstern, 1947) describes DM in terms of the expected utility or value of all possible outcomes, weighted by their probability. In the rational decision making also, all alternatives are generated, clarified, weighted (i.e. weighed with probability of success), discussed and then the best is chosen. Hence, Rationality seems to be associated with effectiveness as it gives maximum utility of a decision. Though in the real world complete rationality is not achieved, instead it remains always bounded rationality.

Gupta (2010) in a paper on moral decision making of Indian managers described that conformed and accepted conventions acquire the moral dimension that becomes the main reason of existence of justice and relativism philosophy amongst Indian managers' decision-making. Therefore in India, the executives don't firmly follow the Machiavellian philosophy of the end justifies the means; rather they prefer to take right decisions through the proper process of rationality.

Inbar *et al.* (2010) addressed the issue that how while making decisions do people balance intuition and reason? With help of few studies they showed that people when making choices, to follow intuition or reason, are cued by the features of the decision problem. Hence, when features of the choice resemble/associate with rational processing, people decide on the basis of reason and when the features match with intuitive processing, people decide on the basis of intuition.

Pira (2011) did an empirical validation of the importance and relevance of intuitive decision making to successful and effective entrepreneurs. Results indicated that entrepreneurs have a greater propensity for intuitive decision-making. Also they don't ignore the available information to the contrary. Hence they can be both intuitive and rational in their decision-making style.

Hoy and Tarter (2011) view that in rational decision making the searching for options is critical, but to cease the search is also crucial. There has to be a balance between keeping one's options open and taking a decision timely. In that case the decision maker must be aware of the cost of not deciding (1), nothing is perfect (2), and a satisfactory decision is always desirable as well as possible (3).

| Author                               | Focused Style           | Overview                        |
|--------------------------------------|-------------------------|---------------------------------|
| Goll and Rasheed (1997)              | Rational                | Rational style is associated    |
| Augier (2001)                        | and bounded rationality | with good performance,          |
| Gupta (2010)                         |                         | however many a times it is not  |
| Kalantari (2010)                     |                         | pure but bounded.               |
| Anderson (2000)                      | Intuitive               | Intuitive decision making       |
| Dane and Pratt (2007)                |                         | relates positively to           |
| Pira (2011)                          |                         | effectiveness and performance.  |
| Elbana and Naguib (2009)             | Rational and Intuitive  | More Rational and less          |
| Inbar <i>et al.</i> (2010)           |                         | intuitive style is strategic.   |
|                                      |                         | Features of the decision        |
|                                      |                         | problem determine the style.    |
| Sadler-Smith and Shefy (2004)        | Intuitive over rational | Intuition style is better than  |
| Vasconcelos (2009)                   |                         | rational.                       |
| Parker <i>et al.</i> (2007)          | Dependent               | Dependent style improves the    |
| Iyengar <i>et al.</i> (2006)         |                         | decision quality with the       |
| Schwartz et al. (2002)               |                         | inclusion of advices but it is  |
| Argyropoulou and Sidiropoulou (2003) |                         | also vulnerable to bad advices. |
| Flood <i>et al.</i> (2000)           | Avoidant                | Avoidant decision making        |
|                                      |                         | attributes rescuing tasks and   |
|                                      |                         | responsibilities.               |
| Hoy and Tarter (2011)                | Rational and Avoidant   | Rationality should be there but |
|                                      |                         | without being avoidant.         |
| Harrison and Horne (2000)            | Spontaneous             | Crisis and emergency            |
| Flin <i>et al.</i> (1996)            |                         | situations and profiles require |
| Klein (1993, 1997)                   |                         | being spontaneous. For this,    |
| Osipow and Reed (1985)               |                         | one should be trained/learned.  |

**Summary:** The discussion so far is summarized in the Table 2.3. It highlights the overview of various reviewed studies as well as those of the cited cross references. As per the overview, the rational and intuitive styles individually as well as in combination have been considered good for performance. Moreover the intuitive style is considered as better than rational and vice versa. Furthermore, the spontaneous and dependent styles are addressed beneficial if used properly. However, the avoidant style is considered detrimental due to associated delays and irresponsibility of this style.

# 2.3 STUDIES ON NEED PATTERN/ SECONDARY MOTIVES

Langens and Schmalt (2008) stated that the reason for most researchers and psychologists to work on three motivational dispositions of Achievement, Affiliation and Power is that these three explain the "why" of behavior rather than just explaining "how" people act. In addition to the above stated three motives, another important motive is of "Security" (Sanghi, 1998; Luthans, 2002, 2008; Pareek and Purohit, 2010). The security motive is also an acquired secondary motive (Chapter 1) that demonstrates the unrest in individuals and tension about the job, financial security, family and social prestige security. This section and its subsections present earlier views on motives and further elaborate the recent studies which directly or indirectly concentrated on the motives/needs. As few studies concentrated on more than one motive simultaneously, hence here the literature is arranged hierarchically.

# 2.3.1 Early Views on Need Pattern

The needs and motivation of employees came into primary focus through human relations approach to management (Bedeian, 1993) and hence a great concern arose for understanding of the elements that stimulate workers in a given organization. The extent to which need for achievement (nAch), need for Affiliation (nAff) and need for Power (nPow) are possessed by executives significantly correlates with the success of their organizations (McClelland, 1985, Chusmir, 1985). Table 2.4 summarizes few important observations about the needs focused in this study.

| Author            | Main Findings  |
|-------------------|--|
| McClelland (1961) | Propounded acquired need theory that individuals acquire three types of  |
|                   | needs as a result of their life experiences i.e. nAch, nAff, and nPow.   |
|                   | High nAch symbolizes success but the difficulty in delegating authority  |
|                   | when reached in higher positions.  |
|                   | High nAff in managerial positions may be disadvantageous.                |
|                   | High nPow may destroy relationships but leads to positive outcomes       |
|                   | through more altruistic forms, such as changing the way things are done  |
|                   | so that the work environment is more positive or for negotiating more    |
|                   | resources for one's department.  |
| Andrew (1967)     | Achievement motive when supported by organizational climate like the     |
|                   | emphasis on performance goals, challenges and individual responsibility, |
|                   | predicted the salary hikes and promotions.                               |
| Wainer and Rubin, | Businesses headed by people with high nAch showed higher growth rates    |
| (1969)            | compared to other businesses.  |
| Pareek (1974)     | To have committed employees every organization should raise power        |
|                   | motivation in addition to the achievement motivation amongst the         |
|                   | employees.   |
| Varga (1975)      | The high nAch of project staff was found positively associated with      |
|                   | project success.   |

Table 2.4: Early studies on the need pattern/motives

| Author                     | Main Findings   |
|----------------------------|---|
| McClelland and             | Power motivated executives are most effective as they see organizational    |
| Burnham (1976)             | goals more clearly and they exhibit higher team spirit.                     |
|                            | Individual orientation of the achievement motive leads people to behave     |
|                            | in ways that do not essentially cause good management.                      |
|                            | Executives with high nAff want to stay in good terms with all, and for      |
|                            | the same they would not mind sacrificing work.                              |
| Gould (1980)               | Moderate nAch had highest upward mobility and a high or low nAch had        |
|                            | lower mobility in Mexican-American College graduates.                       |
| Khaleque and               | Employment security is one of the key human resource techniques that        |
| Choudhary (1984)           | lead to higher organizational performance. Job security was the most        |
|                            | important factor in job satisfaction for managers at the bottom, and        |
|                            | financial rewards also had significant impact on job satisfaction of Indian |
|                            | Managers.   |
| Parker and Chusmir         | nPow was positively related to status/wealth and professional fulfillment,  |
| (1991)                     | but negatively related to family relationships.                             |
|                            | nAch was positively related to success strivings for status/wealth,         |
|                            | professional fulfillment and contribution to society.                       |
| House <i>et al.</i> (1991) | Obtained positive relation between presidential charisma and nPow, but      |
|                            | negative relation between nAch and presidential charisma.                   |
| Chusmir and                | Found significant correlation between CEO achievement motive and            |
| Azevedo (1992)             | return on sales, return on equity, and future growth in sales (based on     |
|                            | CEO 1988 annual stockholder reports of the 50 largest U.S.                  |
|                            | corporations).  |
| Smith and Cronje           | Security needs include the need for job security; insurance and medical     |
| (1992)                     | aid and the need to feel protected against physical and emotional harm.     |

**Summary:** The observation of earlier researches reveals that though considered against relationships, nPow is beneficial in organizations as well as in politics. Achievement motive attributes success but is considered to be individual oriented and does not depict performance in politics. The opinions about nPow as well as nAch have been negative as well as positive (i.e. mixed). Affiliation motive is considered to be disadvantageous for performance in organizations. Security motive shows the concern for job security, future as well as for insurance against harms.

# 2.3.2 Recent Views on Need Pattern

Greenstein (2000) obtained that presidents with nAch had low political skills. The author argued that presidents with nAch have an "active-negative" pattern (i.e. despite striving actively to accomplish things, the president becomes frustrated, dislikes the job, and ends up defeating himself). Whereas presidents with nPow have "active-positives" pattern (Barber, 1972). Therefore to succeed in politics, the individuals should have high nPow and low nAch.

However, Rauch and Frese (2000) believed that the achievement motive alongwith internal control is associated with success of entrepreneurs. Hence to be a successful entrepreneur, individuals should have achievement motive with continual strive for success.

Gee and Burke (2001) discussed the importance of continuously motivating employees with special reference to increasing job insecurity and decreasing loyalty. They viewed realization of employee potential is must and for that their needs should be explored to fetch 100% efforts from them. Monetary motivation and its effect is often short term. They discussed a success story of "Anglia Water" (a firm) that introduced a policy of "personal development plans" that aimed to remove job insecurity. It encouraged the employees to express their hopes and ambitions both within and beyond the company. This made employees motivated for long term and in turn loyal to the company. The authors also propound that employee tasks should be adapted to their needs. They concluded that managers must realize employee needs to gain relationship of trust and commitment and also suggested that teamwork is a great tool for realizing employee potential.

Wiesenfeld *et al.* (2001) in a study on virtual workers found that the association of employees' nAff with their strength of organizational identification is moderated by perceived work based social support. It attributed that the individuals who have high nAff have a strong intrinsic need to identify with their organizations irrespective of their membership significance (permanent/ temporary/ part time/full time etc.), but even the employees with lower nAff strongly identify with an organization in the presence of high work based support. It was so because in virtual climate (i.e. not working face to face) having lack of nAff, the employees essentially require support to identify with their firms.

Reis and Peña (2001) wrote a conceptual paper proposing to reengineer the traditional motivational strategies. The authors attempted to revisit the history to distill knowledge and gave a fresh formula for motivation based on friendship, work and respect. They argued that employee retention and satisfactory role performance depend on experiences in the organizational system and therefore to get the best of employee performance, the organization should provide experiences like friendly environment, respect, etc.

Frieze and Boneva (2001) viewed that although power motive has been associated primarily with aggressive, assertive and culpable behaviors and outcomes (Winter, 2000), but the strong power motive may be expressed in a variety of socially acceptable forms of controlling and influencing others, such as providing service and helping others (Winter, 1993). Hence this motive also relates to working effectiveness if it is social (institutional) not personal (coercive).

Winter (2002) found that the need for affiliation and need for power are closely related to managerial success. High need for power and low need for affiliation indicates best managers. Also, the presidential nPow was significantly related to his rating as a great president, but nAch had no association with such attributes.

Ahmad and Schroeder (2003) provided support for and empirically validated seven HRM practices suggested by Pfeffer (1998). Out of the seven principles, four (i.e. employment security; comparatively high compensation contingent on organizational performance; reduced status distinctions and barriers; including wage differences across levels; and extensive sharing of financial and performance information throughout the organization) were primarily concerned with reducing insecurity. It further ascertained that turnover rates are lower and sales growth is higher in firms that emphasize high relative pay and employment security. In addressing the need for security and bringing down the insecurity, the organizations must provide job security (Delery and Doty, 1996; Pfeffer, 1998) and reasonably high pay to the employees.

Van der Vegt *et al.* (2003) stated that "the extent to which employees go above and beyond the call of duty to aid fellow workers and contribute to collective success is important for the functioning of work teams" (p. 715). Hence it is a challenge for organizations to create identification and affiliation in members so that they become loyal and cooperative. In this direction, earlier Cross (2000) had also argued that the strength of the identification among individuals greatly affect the outcome produced by a team. This is so because identification plays a critical role in not only whether teamwork occurs, but also in the performance of the team.

Baruch *et al.* (2004) while examining the personality antecedents of prosocial behavior and its links with job performance, found a direct relationship between nAch and job performance

attributing that the achievement motive is a primary indicator of performance. Their results suggest that a person with a high nAch is willing to help others, but only if doing so is not at the expense of his/her own success. A positive relationship between the nAch and prosocial behavior (represented by extra effort and conscientiousness at work) was also theorized earlier by Worthy (1986).

Pandey (2004) provided extensive literature surveys in various cultural contexts pertaining to cultural influences on motivation. Indian respondents have shown variation in their perceptions about various motives. Cultural findings from India indicated that affiliation, cooperation, concern for others, family mechanisms and loyalty to the group are also the potential sources of achievement for Indians. Earlier, Baumeister and Leary (1995) too found that having no attachments can negatively affect health and well-being. Hence, nAff has a major contribution towards people's well being.

Desivilya and Eizen (2005) stated that Identification is a team-related variable that represents the need for affiliation. Identification or nAff denotes the mutual attraction and interdependence. The people with lower identification (i.e. lower nAff) are inclined to be more domineering in individual actions. Identification is a shift from a personal identity to a social identity (Ulrich *et al.*, 2003). Hence, nAff or identification is a positive construct for team or organization. This notion discarded the earlier contention about nAff that it signifies maintaining good images and not to indulge into criticism of bad performers for the sake of maintaining relationships (McClelland and Burnham, 1976).

Fiol and O'Conner (2005) asserted that members must be motivated to belong to a group i.e. they should identify with the other members. Hence, identification is a key to team work as it shapes the level of cooperation in the team (Tyler and Bladder, 2003). Strengthening identification lessens destructive behaviors and encourages constructive tendencies. Identification or nAff (Desivilya and Eizen, 2005) has been carefully studied over the last three decades being a central part of social behaviors such as team cooperation (Jackson, 2002).

Taggar and Haines (2006) addressed identification/nAff (Desivilya and Eizen, 2005) as a collectivist orientation which is critical to teamwork. The extent to which individual members identify with their teams distinguishes the individual oriented work and teamwork (Desivilya

and Eizen, 2005; Fiol and O'Conner, 2005, Tyler and Bladder, 2003). Earlier Van der Vegt and Bunderson (2005) argued that the degree of collective identification determines a team's performance and results in performance gains. Hence managers should take measures to foster identification in teams.

Lilly *et al.* (2006) acknowledged that the one having a high nPow and nAch is more likely to let work become the focal point for meeting those needs. Whereas, individuals with a high nAff typically want to like others and want others to like them. Due to a strong desire to establish and maintain friendly compatible interpersonal relationships, they might seek a good relationship with family members. As a result, executive's ability is hampered due to lack of objectivity and a tendency to be in the good books of all. Hence, such people cannot be good leaders.

Wu *et al.* (2007) in a longitudinal study of prospective entrepreneurs in a Midwestern state in the USA found that the nAch positively relates to entrepreneurial persistence and business goals moderate the relationship between nAch and "persistence" (behavior in a specific direction over time, Kanfer, 1990). The study employed the need theory as a base because people's tendency to meet unsatisfied needs mobilize people's behavior to satisfy these needs (Alderfer, 1969). The authors remarked that for complex tasks, a strong nAch should be accompanied with moderate business goals if persistence is to occur. The nAch was found to be associated with persistence which in turn led to good performance and it was concluded that nAch stands out consistently as a principal motive for entrepreneurial success.

Kunnanatt (2008) investigated the nAch in a sample of Indian banking sector managers (n=132), to revisit the claim of McClelland (1961) that India had slow economic growth due to lack of people with nAch. The author wanted to check whether nAch has to do something with the contemporary progress of India? Here the achievement oriented people were described as ambitious, hard-working, competitive, keen to improve their social standing, and placing a high value on productivity and creativity (Eyesenck and Wilson, 1975). The distribution of nAch as well as its relationship to performance effectiveness was measured. Results revealed that Indian managers possess nAch in considerable amount (above average level) and that top performers possess maximum levels of achievement motive. The author suggested such an evidence of

nAch could serve as a crucial input for planning future expansion and diversification, and therefore the nAch in other sectors should also be explored.

Salami (2008) found a significant relationship between nAch and organizational commitment on a sample of Nigerian public and private manufacturing and service firm. As per the author, achievement motivation is the desire to be successful in competitive situations (or to perform in terms of a standard of excellence). The study contended that individual employees tend to satisfy their needs through their work and hence workers with high achievement motivation are more committed to their organizations and in turn good performers.

Cruz *et al.* (2009) examined intrinsic and extrinsic motivation as determinants of the employees' knowledge transfer in the context of a Spanish non-profit-organization. Only intrinsic motivation was found to improve the knowledge transfer. Author argued that rather than extrinsic compensation, most individuals desire: a pleasant work environment to apply all their capacities and collaborate with interesting people (1), working in an atmosphere of mutual respect (2), experiencing feelings of accomplishment (3), self-respect (4), the provisions for adequate leisure time (5), feelings of power and prestige (6), a low-stress (7), slower pace of work (8), and involvement with such an organization that has values and goals similar to their own (9). They concluded that people are involved with a non-profit organization due to intrinsic reasons rather than for financial rewards.

Lee (2009) in a study on the administrative personnel of government in Changhua County examined the personal characteristics in terms of psychological needs to approach success i.e. achievement motivation (the preferred drive for the behavior of employees that affects psychological contracts: the terms and conditions and convictions promised in the mutual agreements for exchange between employees and organizations, Rousseau, 1989). Achievement motivation here was measured on dimensions of mastery of needs (i.e. individual prefers jobs that are challenging, intellectually demanding, and thought-oriented, and also enjoys playing a leadership role in groups and is able to complete tasks already started); work orientation (i.e. an individual takes a proactive attitude toward work and loves what he or she does, and obtains a sense of satisfaction from work and pursues self- realization and growth); and competitiveness (i.e. individual hopes for victory and has the desire to win over others). Mastery of needs and work orientation both significantly influence psychological contracts, whereas competition doesn't. The author suggested that to realize psychological contracts, the screening and selection of administrative personnel in government should consider mastery of needs and work orientation.

Sahu (2009) through an empirical study of service sector organization in India concluded that executives perform tasks to fulfill their needs and in turn contribute to attain organizational objectives. Therefore, a high level of performance can be fetched by inducing them to channelize their behavior towards such accomplishment. Here, job security was considered most important followed by high income and flexible hours. Moreover, the job security was rated first in the ability to satisfy employees, followed by importance of work to society and the opportunity of working independently. Overall, it was found that job security is the main element important to the employees and necessary to keep them satisfied. It was suggested to do research in the future to extend the scope of the study to investigate in other sectors.

Winter (2010) observed that the nAch predicts business/entrepreneurial success but it does not predict success in politics (may even predict failure). The nPow rather predicts success in politics (as the presidential nPow was significantly related to his rating as a great president). If some Political leaders have a high nAch then they often become frustrated due to their lack of control on others' behaviors. This in turn leads to their failure in political battle.

Bhat and Shah (2010) studying the bottom level sales-persons explored how employee motivation affects employee behavior within organizations. As per the authors, an unsatisfied need creates tension that stimulates drives within the individual and being in a state of tension the motivated employees exert efforts to relieve their tension i.e. they perform. It was concluded that motivated sales persons are essential in order to have better profitability and motivation and performance of the organization has a direct link. They suggested exploring motivation's linkages to different organizational variables. Money was found to be the primary motivator in this study.

Joseph and Dai (2010) performed a descriptive survey of 120 employees of a Utility Company in Abidjan to depict a certain number of factors that stimulate employees in the workplace. Here, 20.83% respondents ranked 'interesting work" as the first motivational factor; 16.67% ranked "good wages" as the second; 15% ranked "full appreciation of work done" as third; and

12.50% ranked "Job Security" as forth. Herein, the interesting work attributed the achievement motive, while both good wages and job security were a symbol of security motive in a kind. However the author considered four theories of motivation- Maslow's hierarchy, Adam's equity, Vroom's expectancy and Herzberg's two factors.

Solansky (2011) explored the reason why some teams realize performance gains and others do not. It was empirically proven that the team identification is an important factor determining performance. The members with high identification on average perform better than members with rather low identification. Therefore Identification tends to reduce self interests and increases the possibility that team members extend themselves for the team's benefit. The results also demonstrated that identification actually matters to outcome variables. The author concluded that effective teamwork produces more when the identification/nAff (Desivilya and Eizen, 2005) is present.

Gomes (2011) discussed the human needs and their hierarchical valuation (i.e. how individuals measure the current social value of a need that will be tried to fulfill at some future date). The argument was based on the attempt made by researchers to rank the needs in a hierarchical pyramid (for e.g. Maslow, 1954; Max-Neef, 1992; Nussbaum and Glover, 1995; and Sirgy *et al.*, 1995). A sequence of needs for analysis with number ranking to the needs indicating their place was assumed. Here, the basic property was that a given need cannot be addressed unless all the previous needs in the hierarchy are satisfied. The author acknowledged the fact that any hierarchy of needs will always be subjective and incomplete as needs may be interrelated and sometimes overlapping too. It was concluded that building a hierarchy reflects a notion of the priorities faced by humans in their lives. Henceforth, many obstacles arise while arranging the needs in the hierarchy which can only be done in the absence of uncertainty, which is ideal not real.

Sandalgaard *et al.* (2011) diagnosed the interactive effect of motivational factors (based on big three motivations: nAch, nPow and nAff) with participative budgeting on goal commitment among bank managers from a Scandinavian regional bank. The subordinates with high nPow and low nAff had the largest effect of budgetary participation on goal commitment. Alternatively, those with low nPow and high nAff had lower such effect. The study affirmed the interaction of personal-psychological variable (motives) and situational variable

(participation) on action/accomplishment (goal commitment). No association of nAch with goal commitment was found. Here, the results were in contrast with Hollenbeck *et al.* (1989) who obtained a positive relationship between nAch and goal commitment and also found an interaction effect of the nAch and goal origin.

Abdulla *et al.* (2011) performed a factor analytic investigation of factors affecting job satisfaction in the UAE (a communist society). It was found that in a collectivist culture (the UAE), both intrinsic and extrinsic factors can be a source of job satisfaction or dissatisfaction. Here, salary and incentive clearly emerged as the most powerful determinant of job satisfaction and it reflected the preference for maintenance of living standard (also the high cost of living and rising rents) and security (Aksu and Aktas, 2005). Moreover, a thought of being "favorably viewed by the public" (i.e. having a good image) and "Relationship with Co-workers" also emerged as important factors in determining job satisfaction in UAE. Like other collectivist society, it affirmed that the employees tend to gain satisfaction from social perception and status of the job (Huang and Van de Vliert, 2004; Abu Elanain, 2009). Furthermore, the individuals having supportive and constructive relationships with their team members also reported to possess higher levels of job satisfaction.

**Summary:** The concept of intrinsic psychological needs defined as the nutrients necessary for human survival and growth, are useful for studying motivation and performance in the workplace (Arshadi, 2010). The security motive is also intrinsic but being associated with externally satisfying outcomes like salary, living standard, insurance etc, it has been considered as extrinsic throughout the literature. It is also affirmed by the fact that higher intrinsic motivation like a challenge, positional advantage etc. were related to greater willingness to accept international assignments independently as well as over and above extrinsic motivation like pay packages and housing (Haines III *et al.*, 2008). Ryan and Deci (2000) contended that Individuals with high intrinsic motivation (i.e. doing an activity for the inherent satisfaction of being involved in the activity itself) engage in an activity because of personal interest and values. Table 2.5 summarizes the overviews on secondary motives and about needs in general. Specifically, the attributes mentioned are related to higher nAch, nPow and nAff. The attributions mentioned with respect to nSec are however associated with lower levels of nSec.

| Needs          | Attributions                                   | References  |
|----------------|--|---|
| nAch           | Entrepreneurial Success                        | Rauch and Frese (2000); Wu et al. (2007); Winter  |
|                |  | (2010)  |
|                | Organization                                   | Baruch et al. (2004); Kunnanatt (2008)  |
|                | Performance                                    |   |
|                | Prosocial Behavior                             | Baruch <i>et al.</i> (2004)   |
|                | Commitment & work                              | Salami (2008); Lilly et al. (2006)  |
|                | focus  |   |
|                | Psychological contract                         | Lee (2009)  |
|                | Intrinsic                                      | Cruz et al. (2009)  |
| nPow           | Political success                              | Greenstein (2000); Winter (2002, 2010)  |
|                | Control and Influence                          | Frieze and Boneva,(2001)  |
|                | Managerial Success                             | Winter (2002)   |
|                | Work focus                                     | Lilly <i>et al.</i> (2006)  |
|                | Goal Commitment                                | Sandalgaard <i>et al.</i> (2011)  |
|                | Intrinsic                                      | Cruz <i>et al.</i> (2009)   |
| nAff           | Identification                                 | Wiesenfeld et al. (2001); Van der Vegt et al. (2003);                                   |
|                |  | Cross (2000); Desivilya and Eizen (2005); Solansky                                      |
|                |  | (2011); Jackson (2002)  |
|                | Collectivism                                   | Taggar and Haines, (2006); Vegt and Bunderson   |
|                |  | (2005); Pandey (2004)   |
|                | Key to teamwork                                | Fiol and O'Conner (2005); Tyler and Bladder (2003);                                     |
|                |  | Vegt and Bunderson (2005); Solansky (2011); Pandey                                      |
|                |  | (2004)  |
|                | Family & Friendly ties                         | Lilly et al. (2006); Reis and Peña (2001); Pandey                                       |
|                | T . • •  | (2004)  |
| 0              | Intrinsic                                      | Cruz <i>et al.</i> (2009)   |
| nSec           | Job Security                                   | Ahmad and Schroeder (2003); Sahu (2009)   |
|                | Financial Security                             | Ahmad and Schroeder (2003); Bhat and Shah (2010)  |
|                | Self and Family Safety                         | Abdulla <i>et al.</i> (2011); Aksu and Aktas (2005)                                     |
|                | Status and Social Prestige                     | Huang and Van de Vliert (2004); Abu Elanain (2009);                                     |
|                | Extringigally acticfying                       | Abdulla <i>et al.</i> (2011)<br>Abdulla <i>et al.</i> (2011): Cruz <i>et al.</i> (2000) |
| About          | Extrinsically satisfying<br>Stimulate behavior | Abdulla <i>et al.</i> (2011); Cruz <i>et al.</i> (2009)                                 |
| About<br>Needs |  | Joseph and Dai (2010); Bhat and Shah (2010)   |
| meeus          | Subjective & Overlapping                       | Gomes (2011)  |

Table 2.5: Overview on needs and need pattern based on Recent Studies

The observation of Table 2.4 reflects that higher nAch is related to success in organizational performances, higher nPow is also related to managerial success, and higher nAff is helpful in creating strong identification and in turn to collectivism. Perhaps that is why the high nAff has been attributed as a key to teamwork. The nSec being low tends to reflect high job security, high financial security, high self and family safety, and also high social prestige. This need is extrinsically satisfying.

# 2.4. STUDIES ON TEAM EFFECTIVENESS

Many researchers acclaimed that Team Performance (TP) being a predictor is directly related to TE (e.g. Gladstein, 1984; Hackman, 1987; Ancona and Caldwell, 1992; Campion *et al.*, 1993, 1996; Wageman, 1995; Guzzo and Dickson, 1996; Janz *et al.*, 1997; Adams *et al.*, 2002). A recent view suggests that TE and team efficiency also predict TP (Cacioppe and Stace, 2009). Hence both the terms (TE and TP) can be used interchangeably, and therefore our literature review also incorporates both TE and TP. Table 2.6 reports the studies on TE and TP (1997-2011) which were observed relevant with respect to the constituting factors and variables of TE in this study.

**Summary:** Table 2.6 reveals that compositional attributes and characteristics like personality, ability, attitude, skills etc. have been considered important in TE/TP researches, for e.g. Barrick *et al.* (1998), Green *et al.* (2005), Higgs *et al.* (2005), Bell (2007), Kauer *et al.* (2007), Sudhakar *et al.* (2011) etc. The personality based researches have often diagnosed the impact of "mean personality levels" on TE (e.g. Barrick *et al.*, 1998; Bell, 2007) as well as the "dispersion of personality characteristics" on TE (e.g. Higgs *et al.*, 2005). Herein, few characteristics had a positive impact on TE and their component factors were for e.g. general mental ability, extraversion, emotional stability, conscientiousness and agreeableness. Few attributes like affect and mood (Cohen and Bailey, 1997) have been worked upon less according to Mathieu *et al.* (2008). Few researches also obtained no effect of member related factors for e.g. Jong *et al.* (2000). The diversity researches have optimistic views (i.e. diversity is valuable as it leads to better information processing and creativity with variety of member inputs) as well as pessimistic views (i.e. diversity creates sub groups and social categorization in teams) (Mannix and Neale, 2005).

Member attributes have also been segregated as surface level (easily observable/visible like age, gender) and deep level (invisible/not easily observable at sight like functional background, education, personality, ability etc.) for e.g. Harrison *et al.* (1998), Drach-Zahavy and Somech (2002), Tarricone and Luca (2002), Emmerik *et al.* (2011) etc. Few researches (like Kochan *et al.*, 2003) also had moderation through processes between diversity and performance relationship.

Table 2.6: Studies on TE, 1997-2011 (Directly and Indirectly Relevant to the Variables and Factors of this

| Authors-Reference                 | Sample                                  | Variables Focused   | Finding   |
|-----------------------------------|---|---|---|
| Warkentin <i>et al.</i> (1997)    | UG students at 3 large universities     | Virtual Teams (VT) versus Face-to-<br>Face (FTF) Teams  | Relational links of members- significant contributors to effectiveness of information exchange.   |
| Rosenthal (1997)                  | Case study                              | The pattern of ties that individuals have (personal networks/PN); TP  | PN are important to TP; differences in networks (sparse or dense) explain the performance variations.   |
| Barrick et al. (1998)             | 41 assembly and maintenance teams       | Personality and ability factors; TP and<br>team viability (TV), cohesion as a<br>mediator definition of the team viability (TV), cohesion as a<br>mediator definition of the team viability (GMA), conscientiousness<br>agreeableness, extraversion and emotional stability<br>+ve to TP; GMA, extraversion & emotional stability<br>+ve to TV. Cohesion stood as a partial mediator. |   |
| Harrison <i>et al.</i> (1998)     | 71 hospital and<br>grocery store teams  | Diversity-demographic, personality, ability and attitude; on cohesion   | The length of time team members worked together<br>weakened the effects of surface level diversity while<br>strengthened the effects of deep level diversity. |
| Ray-Chaudhari<br>(1998)           | Descriptive paper                       | Sense of identity (SOI); Team<br>Empowerment and TE   | Strong team identity is an important step of empowerment that leads to effectiveness.   |
| Kirkman and Rosen<br>(1999)       | 111 work teams in four organizations    | Antecedents, consequences, &<br>mediational role of empowermentEmpowered teams are more productive/proad<br>high job satisfaction, commitment & service   |   |
| Mickan and Rodger (2000)          | Descriptive paper                       | Characteristics of effective teams<br>across 3 levels: organization, team and<br>individual function Specification of goals & tasks, deleg<br>responsibility, accountability for achieveme<br>processes like coordination, commu<br>cohesion, decision making, conflict man<br>social relationships and performance feedbac   |   |
| Jong et al. (2000)                | After sales service<br>employees' teams | Contextual & employee related factors; perceived uncertainty  | The employee related factors did not relate to the perceived uncertainty i.e. no sufficient information.  |
| Drach-Zahavy and<br>Somech (2002) | 42 school teams                         | Attributes: Task related (function,<br>education & tenure); Relation oriented<br>(age & gender); Support and TE   | High heterogeneous teams in tenure were less supportive and effective than the counterparts.  |

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| Authors-Reference               | Sample   | Variables Focused   | Finding  |
|---------------------------------|--|---|--|
| Gully <i>et al.</i> (2002)      | 67 studies-Meta<br>analytic review   | Team efficacy and potency<br>(synonymous to cohesion) and<br>interdependence and TP   | Both efficacy and potency positively related to performance.   |
| Tarricone and Luca (2002)       | Conceptual paper   | Skills: Technical; Mgmt; admin.; and<br>teamwork (like collaboration,<br>communication, interdependence etc.)Organizations want a combination of attri<br>employees, also the ability to develop &<br>friendly relationships with all the stakeholder |  |
| Doorewaard <i>et al.</i> (2002) | 36 case studies in the Netherlands   | Team responsibility (of work<br>preparation, support & control); TP   | Hierarchical (leader takes the responsibility) and<br>Shared (members take the responsibility). The shared<br>responsibility was found to contribute towards TP. |
| Beal <i>et al.</i> (2003)       | 64 studies-Meta<br>analytic review   | Cohesion<br>TP, Effectiveness   | Cohesion correlated with performance and effectiveness.  |
| Gonzalez (2003)                 | 71 groups (200<br>Mexican business<br>students)                              | Task cohesion; Collective efficacy;<br>TE   | Task cohesion mediated b/w collective efficacy and TE; Direct impact of team behavioral performance (facilitating team and peer performance) on TE.              |
| Kochan <i>et al.</i><br>(2003)  | Studies of firms:<br>Information<br>Processing, Financial<br>Service, Retail | Diversity: cultural, demographic,<br>technical & cognitive; ProcessesDiversity had +ve and -ve impacts on<br>well as moderation through proc  |  |
| Sudweeks (2003)                 | Case Study on online<br>learning settings                                    | Key attributes of TE: communication,<br>interdependence, leadership and<br>accountability   | In addition to facilitating cooperation and collaboration, teamwork also promote learning through interaction, problem solving and dialogue.                     |
| Özaralli (2003)                 | 154 employees from various industries  | Empowerment; TE (innovation, communication and TP)  | High team empowerment enhanced the TE; suggested to explore the level of empowerment to increase TE.   |
| Kirkman and<br>Gibson (2004)    | 35 sales & service virtual teams   | Team empowerment and TP measured<br>through the process; face-to-face<br>interaction (FTFI)   | Number of FTFI moderated between team<br>empowerment and process improvement, stronger<br>when they met face-to- face less, rather than more.                    |
| Kratzer <i>et al</i> . (2004)   | 243 members, 44<br>New Product<br>Development (NPD)<br>teams, 11 firms       | Team cooperation and Team<br>integration; TP  | Right level of team cooperation & team integration:<br>must balance in extremes of very high & very low.   |

| Authors-Reference   | Sample  | Variables Focused  | Finding   |
|---|---|--|---|
| Langfred (2005)   |   |  | Both the autonomy interacted with TI to explain team performance.   |
|   |   |  |   |
| Aubé and Rousseau (2005)  | 74 teams (from13<br>Canadian Firms)                     | Team goal commitment (TGC) and<br>TE (TP, quality of group experience                | TGC positively related to TE criterias; TI moderated<br>between TGC and TP; Supportive behaviors  |
| Fiol and O'Connor   | Concentral nonen on                                     | i.e. QGE and team viability)<br>Identification (Id); self enhancement                | mediated b/w TGC & TP and TGC & QGE.<br>SEN (tendency to be perceived worthy and attractive   |
| (2005)  | Conceptual paper on<br>antecedents of<br>identification | needs (SEN) & desire to reduce<br>uncertainty (DRU)                                  | by outsiders) & DRU (tendency to have an agreement<br>and experience similarity) are antecedents of Id.   |
| Higgs et al. (2005)   | 28 teams  | Team diversity (in terms of Belbin's team roles); task complexity; TP                | Diversity +vely related to performance for complex tasks & -vely related for straightforward tasks.   |
| Beranek and Martz (2005)  | 12 virtual teams  | Cohesiveness, perceptions of the process & satisfaction with outcomes                | Teams receiving training had high cohesiveness, perception of the process and satisfaction.   |
| Molleman (2005)   | Discussion:<br>multilevel of team                       | Global (G) and Shared (S) constructs;<br>& Compositional properties (CP)             | G: Entire team (e.g. Size); S: members' shared perceptions (e.g. cohesion); CP: based on individual team member (e.g. age, skills or personality traits). |
| Kratzer et al. (2005)   | 44 innovation teams                                     | Informal contacts: Friendly (Fy) and<br>Friendship (Fp) ties; TP                     | Fp: informal communication outside work e.g.<br>evenings, or on weekends; Fy: free-riding at work; Fp<br>increase TP and Fy should be avoided.            |
| D'Amour <i>et al.</i><br>(2005)   | Review in contexts of health services                   | Collaboration  | Collaboration is a key factor for increasing effectiveness.   |
| Mannix and Neale (2005)   | Conceptual-<br>theoretical paper                        | Diversity categorization, approaches and views                                       | Pessimistic (harmful, cause social categorization);<br>Optimistic (valuable, good information processing).  |
| Green et al. (2005)   | Conceptual review paper                                 | Member attributes: Multiple<br>Intelligence (MI, by Gardner, 1983,<br>1999)          | Allowing employees to use their stronger intelligence<br>can enhance collaboration, teamwork, problem<br>solving, relationship building, etc.             |
| Stewart (2006)93 studies-Meta<br>analytic reviewTeam design and Group composition,<br>leadership and TP |   | Meaningfulness had relation with TP; Autonomy and coordination also related with TP. |   |

| Authors-Reference           | Sample                | Variables Focused                       | Finding  |
|-----------------------------|-----------------------|---|--|
| Carpenter et al.            | 172 participants and  | Strong reciprocity (human propensity    | Under appropriate conditions, strong reciprocity can   |
| (2006) twelve sessions      |                       | to cooperate with obeying and to        | support mutual monitoring i.e. monitoring by peers,    |
|                             |                       | punish violators of social norms)       | even in large teams.                                   |
| Doolen <i>et al.</i> (2006) | 16 teams, engineering | Organizational context (e.g. Clear      | Few contextual variable affected effectiveness;        |
|                             | knowledge workers     | purpose; resource allocation;           | suggested to investigate the distinction between team  |
|                             |                       | interaction; integration; support) & TE | processes and organizational contexts.                 |
| Mathieu et al.              | 121 service           | Team processes and Team                 | Empowerment-performance relationship mediated by       |
| (2006)                      | technician teams      | empowerment; TP                         | team processes.  |
|                             |                       |   |  |
| Balkundi and                | 37 studies -Meta      | Members' & leaders' social network;     | Teams with dense interpersonal ties attain their goals |
| Harrison (2006)             | analytic review       | TE(Task performance & viability)        | better and are more committed to staying together.     |
|                             |                       |   |  |
| Stashevsky and              | 252 student           | Cohesiveness; Transformational          | Cohesiveness as well as TLS associated positively      |
| Koslowsky (2006)            | participants          | Leadership Style (TLS); TP              | with TP; Cohesiveness did not predict TP in women.     |
|                             |                       |   |  |
| Davies and Kanaki           | Middle-Managers       | Interpersonal characteristics           | Classification of team roles based on interpersonal    |
| (2006)                      | (UK Service org.)     | associated with Belbin's team roles     | personality characteristics will help enhance TE.      |
|                             | _                     |   |  |
| Kirschner (2006)            | 75 teams, students    | Interpersonal and socio cognitive       | Both processes through the formation of mutually       |
|                             | (The Netherlands)     | processes; TP                           | shared cognition, result in higher perceived TP.       |
|                             |                       |   |  |
| Kozlowski and               | Extensive review on   | Dynamic complexity; emergent team       | Cohesion, Conflict (i.e confrontation), Coordination,  |
| Ilgen (2006)                | team processes        | processes; and development,             | Cooperation, Communication & Member                    |
|                             | -                     | evolution, and adaptation               | Competencies are few processes to improve TE.          |
| Paulus and Brown            | Conceptual model of   | Social-motivational factors; cognitive  | Both cognitive & social factors influence task         |
| (2007)                      | group ideation        | process of individual idea generation   | capability, in turn influence the creative process.    |
| Bell (2007)                 | 89-studies Meta       | Personality and Ability effects on TP   | Strong predictors of TP were minimum agreeableness     |
|                             | analysis              |   | and mean conscientiousness, openness to experience,    |
|                             |                       |   | collectivism, and preference for team work.            |

| Authors-Reference               | Sample  | Variables Focused   | Finding  |
|---------------------------------|---|---|--|
| De Dreu (2007)                  | 46 Mgmt. & cross-<br>functional teams                               | Cooperative outcome interdependence<br>(COI); information sharing; TE   | Higher perceived COI enhances information sharing which in turn enhances learning & effectiveness.   |
| Kauer et al. (2007)             | A top management<br>team members                                    | Experience diversity (ED) & personality diversity (PD); mediating processes   | ED affects agenda-setting & alternatives' gathering<br>but not the speed of decision making. PD: the high<br>action oriented members made quicker decisions.   |
| Campany <i>et al.</i> (2007)    | 51 teams in New<br>Product Development<br>(NPD), 527 members        | Behaviors distinguishing high<br>performing (HP) & low performing<br>(LP) teams   | Task focus: HP empowers the members & clarifies<br>expectations. People focus: HP understands the value<br>of higher integration; better know members and<br>recognize the link b/w familiarity & effectiveness. |
| Jong et al. (2008)              | 49 teams with 172 team members                                      | The level of team virtuality; Intra-<br>team conflicts; on TP   | Less virtual teams:-ve impact of task conflict on<br>perceived TP, while high virtual teams:+ve impact.<br>Process conflict had a -ve impact on perceived TP.  |
| Ross et al. (2008)              | Theoretical empirical model of TE                                   | Performance (P), Behavior (B),<br>Attitude (A), Member Style (M),<br>Corporate Culture (C)  | TE is function of 100%P, 50%B, 15%A, 165%M, 5%C. Research should investigate the standard variables to measure P,B,A,M & C.  |
| Mathieu <i>et al.</i><br>(2008) | Review of TE<br>literature (1997-<br>2007)                          | IPO-IMOI Framework; Team<br>compositional, Team Level and<br>Organizational/Contextual level inputs   | Cohen and Bailey (1997) suggested future research<br>areas, all except the team affect and mood (member<br>related attributes) have been researched sufficiently.  |
| Lepine <i>et al.</i> (2008)     | 138 studies-Meta<br>analytic review                                 | Interpersonal, action, and transition processes; Cohesion and Potency; TP   | Processes related to performance and member satisfaction, and cohesion and potency.  |
| Cacioppe and Stace<br>(2009)    | 350 professionals and<br>managers in private<br>and public sectors. | Inter-role understanding; enabling<br>resource allocation; bonding/cohesion;<br>intragroup trust, rich, unemotional<br>debate; open communication, etc. | Integral TE measure (ITEM) is an indicator to describe integral team effectiveness and individual question scores should be used to point out areas where specific improvement is required.                      |
| Koc-Menard (2009)               | Review: small group<br>& social network                             | Social relations; TP; negotiation   | Teams can rely on social relations to have a hold on resources that augment their ability to bargain.  |

| Authors-Reference               | Sample  | Variables Focused  | Finding   |
|---------------------------------|---|--|---|
| Foster and<br>Washington (2009) | Data: Major League<br>Baseball & National<br>Hockey League    | Task interdependence (TI) and TP   | TI (i.e. The manner that work flows between an organization's work units, Van de Ven and Ferry, 1980, p. 166) impact performance teams in sport.  |
| Marx and Squintani (2009)       | Model with 1<br>principal and 2 agents                        | Individual accountability in teams;<br>agents (members); monitor (principal)   | The principal should delegate monitoring task to members and then monitor the monitors.   |
| Kearney <i>et al.</i><br>(2009) | 83 teams from eight organizations                             | Need for cognition; diversity (age &<br>educational specialization diversity);<br>elaboration of task-relevant<br>information (ETRI), collective team<br>identification (CTI) and TP | Both diversities positively related to ETRI, CTI and<br>TP when team need for cognition was higher, rather<br>than low. Both ETRI & CTI mediated a moderating<br>effect of need for cognition between diversity & TP. |
| Yang and Choi<br>(2009)         | US Municipal<br>employees                                     | Team empowerment (autonomy,<br>responsibility, information and<br>creativity); TP (inclusive of TE)  | Team empowerment and its dimensions positively predicted/ affect team performance/effectiveness.  |
| Williams and<br>Castro (2010)   | Students: 79 in 21 on-<br>campus and 97 in 26<br>online teams | Team setting; cohesiveness; TP; team<br>source learning (TSL); member<br>interaction; member teamwork<br>orientation   | Team setting moderated between individual TSL and<br>member interaction; and between individual TSL and<br>member teamwork orientation; and the relationships<br>were stronger in online teams.                       |
| Henttonen <i>et al.</i> (2010)  | 76 teams (499<br>employees from 48<br>diff organizations)     | Demographic antecedents (age,<br>education and gender) and the social-<br>network structure; TP  | Only gender diversity was related negatively to density and positively to fragmentation. Also, the gender diversity related negatively to TP.   |
| Han and Harms (2010)            | 1241 employees in a<br>US Fortune 500 Co.                     | Relation between trust, team<br>identification (sense of belongingness)<br>and team conflict   | Team identification which related to lower levels of<br>both task conflict and relationship conflict, mediated<br>by the employees' trust in their peers.   |
| Berg and<br>Holtbrügge (2010)   | Global automotive & airline industry teams                    | Task complexity, language skills,<br>communication media and<br>intercultural training   | Instead of being directly influenced by the interaction<br>of culturally different members, the performance is<br>influenced by various other determinants.   |
| Curșeu and<br>Schruijer (2010)  | 174 teams (897<br>participants)                               | Interplay between trust and conflict as<br>antecedents of team effectiveness   | The models with trust as an antecedent of conflict<br>and conflict as precedents to trust fitted the data well.   |

| Authors-Reference                | Comula  | Variables Focused   | Finding   |
|----------------------------------|---|---|---|
| Gardner (2010)                   | Sample<br>89 consulting and<br>accounting teams<br>from a big Four firm | Members' status perceptions;<br>coordination; task conflict, and<br>performance   | <b>Finding</b><br>Under time pressure & intragroup familiarity—team<br>members' disagreements lead to poor coordination<br>and increased conflict and diminish performance. |
| Eccles <i>et al.</i> (2010)      | South African<br>software dev. teams                                    | TE factors (composition, support,<br>Mgmt & structure, & communication)       Collocation has a positive impact on a number of<br>team effectiveness factors. |   |
| Savelsbergh <i>et al.</i> (2010) | 22 teams from eight<br>Dutch organizations                              | TP and factors distinguishing high<br>performing and low performing teams   | Team leadership, goal clarity, and team learning behaviors influence TP the most.   |
| Sudhakar <i>et al.</i> (2011)    | Journal Reviews on<br>software teams                                    | Technical, soft, organizational and<br>environmental factors affecting TP   | Soft factors like climate, diversity, innovation, competencies and characteristics, support and leader behavior etc. have an effect on team performance.                    |
| Pazos and<br>Beruvides (2011)    | 24 teams at public<br>university in Texas                               | Computer supported (CS) v/s face to face (FTF); communication media   | No difference, but the cohesiveness improved at a faster rate in CS teams than in FTF teams.  |
| Emmerik <i>et al.</i> (2011)     | 221 teachers in Dutch secondary schools                                 | Social capital (relationship networks);<br>deep- level similarity; team learning;<br>team capabilities  | Deep-level similarity in interpersonal relationships of<br>members improves team learning behaviors and<br>subsequent team capabilities.                                    |
| Volmer and<br>Sonnentag (2011)   | 96 professional<br>software design<br>engineers                         | Expert member; team function; task function; effective teams  | Expert members in team and task functions positively<br>predicted team performance 12 months later over and<br>above the team's average expertise level.                    |
| Yu and Cable (2011)              | 56 teams of MBA students  | Informational diversity (i.e.<br>Educational and functional<br>dissimilarity) on team cooperation.  | Teams' long-term orientation moderates the diversity-cooperation relationship through its effect on prosocial civic virtue behaviors.                                       |

Personal relationships, interaction, identification have been important member input factors for enhancing team empowerment as well as TE/TP, e.g. Fiol and O'Connor (2005), Kratzer *et al.* (2005), Balkundi and Harrison (2006) etc.Moreover, face to face interaction and mutually shared cognition also seem conducive for TP for e.g. Kirkman and Gibson (2004) and Kirschner (2006). Thus, group orientation rather than individualistic approach tend to enhance TE. The disagreements under time pressure and resultant diminished performance tend to indicate towards the importance of decision making for TE. Only certain studies have considered "need" as influencing factor on TE, for e.g. Kearney *et al.* (2009) used need for cognition as a moderator between diversity and performance; and Fiol and O'Connor (2005) considered the need for self enhancement as an antecedent for identification and in turn TE.

Important team processes are coordination, communication, cohesion, conflict management, performance feedback, cooperation (Mickan and Rodger, 2000; Kozlowski and Ilgen, 2006; Kratzer et al., 2004). Cohesion is found as a significant variable for TE, e.g. Gully et al. (2002), Beal et al. (2003), Stashevsky and Koslowsky (2006). Collaboration is attributed as a key component of TE (D'Amour et al., 2005); Confrontation/open communication & unemotional debates/conflict management seems integral to TE (e.g. Jong et al., 2008; Cacioppe and Stace 2009). Goal specification & commitment as well as accountability have been found important characteristics for effectiveness e.g. Mickan and Rodger (2000), Aubé and Rousseau, (2005), Marx and Squintani (2009) and Doorewaard et al. (2002). The autonomy component has also been considered an important attribute of TE (Langfred, 2005). Team empowerment is also considered as an important task function for TE/TP (Kirkman and Rosen, 1999; Özaralli, 2003; Yang and Choi, 2009) and team processes seems to facilitate empowerment (e.g. Mathieu et al., 2006) and in turn enhance TE. The team processes as well as emergent states seem as equivalent, for e.g. cohesion as a process in Mickan and Rodger (2000) and cohesion as an emergent state in Mathieu et al. (2008). Moreover, authors have also considered team processes and contextual variables as distinct for e.g. Doolen et al. (2006). However, the processes are actually the relationship oriented and team focused interactional associations amongst members which facilitate the task functions smoothly (Campany et al., 2007). Researchers have been considering the effectiveness in task functions and team functions as an indicator of TE (for e.g. Pareek, 2002b; Tarricone and Luca, 2002 etc).

# 2.4.1 Latest Team Effectiveness Studies in India (2005 onwards)

| Author   | Study and Finding  |
|--|--|
| Singh and<br>Antony<br>(2005)  | Study on Indian managers, found that they highly valued team based<br>functioning; have good teamwork practices in their organizations; strongly<br>agree to give their best contribution as team members; favor no bossism<br>philosophy of a team. As per results: promoting trust and cooperation;<br>reducing hierarchical bindings; willful contribution and involvement of<br>members and cooperation as well coordination is required for fruitful results of<br>team work.   |
| Ganesh and<br>Gupta (2006)   | Study on Indian software development teams, identified team climate (where members have trust, cooperation and mutual facilitation) as a crucial factor for team performance. But virtualness negatively affects the team climate and that in turn affects the team performance negatively (c.f. Sudhakar <i>et al.</i> , 2011).   |
| Sharma<br>(2007)   | Study on Indian Information and Technology (IT) companies found that small<br>and even medium sized teams function better/more effectively than large<br>teams.  |
| Huckman <i>et</i><br><i>al.</i> (2009)   | Studied 543 projects teams at Indian Software Services firm reported that the average number of times a team member worked with other team members (i.e. Team familiarity) has a positive significant effect on team performance. Also, the real experience of members had a positive association with team performance.   |
| Tamilmani <i>et</i><br><i>al.</i> (2009)   | Study on an Indian garment company (100 responses) identified the factors influencing team effectiveness. Efficient employee utilization and employee participation in decision making were two important factors for team effectiveness. Results further suggested that members must focus on managing relationships and activities with fellow members as well as with the externals.  |
| Ganesh and<br>Gupta (2010)   | Study on Indian software development teams found that virtualness negatively<br>influences civic virtue and generalized compliance dimensions of extra-role<br>performance but does not affect the altruism and courtesy dimensions.<br>Moreover, task interdependence positively impacts organizational citizenship<br>behaviors (OCB)/extra role performance but does not moderate the<br>relationship between virtualness and OCB.  |
| Bhatnagar and<br>Tjosvold<br>(2012)<br>(Very recent,<br>study in<br>Indian<br>Context) | In a survey of Indian organizational team leaders and members, the leaders<br>marked their participation, people, and productivity values; and the team<br>members marked their constructive controversy as well as their effectiveness<br>and performance. Analysis revealed that the combination of leader<br>productivity values and constructive controversy results into effective<br>teamwork in India. It suggested for having participative and productive<br>orientation of the leaders and open-minded discussion among members on<br>diverse views. |

Table 2.7: Latest Indian TE Studies

**Summary:** Latest Indian studies majorly focused on the constituents of TE and team performance (TP) like trust, involvement & equal status of members, willful contribution, cooperation, coordination, mutual facilitation, participation and productive orientation. Studies

on factors influencing TE/TP focused participation in decision making, relationships, utilization of employees, virtualness and task interdependence, team size and constructive controversy. It is observed that the studies have barely focused upon member attributes and their impact on TE.

### 2.4.2 Literature on TE Constituents for the Study

As mentioned earlier, the framework of TE for this study is based on Pareek (2002b). The dimension of Team Functioning (TF) has incorporating factors of Cohesion, Confrontation and Collaboration, while the Team Empowerment (TEmp) dimension has constituting factors of Task Clarity, Autonomy, Support and Accountability. Table 2.8 presents the literature on attributions, concepts and findings associated with these constituents. Although the TF was not observed as a distinctive variable, but TEmp was found to be a notable variable in the literature. Hence it has distinguishly been incorporated into the tabular discussion.

Summary: Table 2.8 depicts that Cohesion has been considered as mutual attraction, interdependence, sharing, trust, and commitment as well as related to affiliation motive. Confrontation is linked to resolving problems, resolving difference amongst members, and it seems unavoidable due to the propensity of conflicts amongst members. Confrontation also attributes to enhance divergent thinking; shared cognitions and improved information processing resulted from fruitful debates. Collaboration like Cohesion also demonstrates mutuality, partnership, interdependence and sharing. In addition, it reflects a process and help exchanges, coordination, communication and a synergistic element of the team. Task clarity is considered as the fundamental practice that steers the member in the right direction through goal setting. Accountability is associated with monitoring of performance also known as peer evaluation/ mutual monitoring. It is viewed as an important component of empowerment. Autonomy is again a significant element of empowerment and has been associated with a sense of involvement, freedom, self determination as well as motivation and satisfaction. Support depicts the enabling and facilitation through adequate resources, for e.g. instrumental support. In addition to a positive/conducive contexts and permission for experimentation, support is also considered as a team function through supportive behaviors for e.g. emotional support, and it is thus found to enhance morale and satisfaction amongst the members of any team.

| <b>TE Constituents</b> | Attributions/concepts/findings             | References   |
|------------------------|--|--|
| Cohesion               | Interpersonal attraction and trust;        | Mickan and Rodger (2000); Pearce and Ravlin (1987); Beal et al. (2003);                      |
|                        | Sharing; Interdependence;                  | Gully et al. (1995); Beranek and Martz (2005); Pazos and Beruvides (2011);                   |
| (Shared concerns       | Belongingness                              | Paulus and Brown (2007); Lott and Lott (1965)  |
| and views, mutual      | Relates to affiliation motive and          | House and Shamir (1993); Özaralli (2003); Solansky et al. (2011); Fiol and                   |
| stickiness, strength   | identification; and enhance TE             | O'Connor (2005); Beranek and Martz (2005)  |
| in functioning,        | Member attraction, group activities i.e.   | Festinger (1950); Evans and Jarvis (1980); Carron (1982); Goodman et al.                     |
| backup group           | task commitment, prestige/group pride      | (1987); Gonzalez <i>et al.</i> (2003)  |
| decisions)             | Enhance TP (cohesiveness-compliance        | Homans (1974); Summers et al. (1988); Beal et al. (2003); Kolb and Aiello                    |
|                        | hypothesis)                                | (1993); Evans and Dion (1991); Mullen and Cooper (1994); Cohen and Bailey                    |
|                        |  | (1997); Henttonen et al. (2010)  |
| Confrontation          | Productive contributions and effective     | Mickan and Rodger (2000); West (1994); Firth-Cozens (1998); Parry et al.                     |
| (Open discussion on    | problem solving; avoid destructive         | (2008); DeChurch and Marks (2001); Bono et al. (2002); Stevens and                           |
| issues and problems,   | interference                               | Campion (1994)   |
| devise alternative     | Resolving the differences amongst          | Sawyer (2001); Hinds and Mortensen (2005); Smith et al. (2000); De Dreu                      |
| solutions, no          | members; better TP                         | and Weingart (2003); Hinds and Bailey (2003); Jehn (1997); Kozlowski and                     |
| hesitation in hard     |  | Ilgen (2006); Forbes and Milliken (1999)   |
| decisions and          | Unavoidable (both task and relationship    | Gardner (2010); Jehn (1995); Pelled et al. (1999); Hinds and Bailey (2003);                  |
| expressing             | conflicts result in confrontation)         | Mooney <i>et al.</i> (2007)  |
| differences)           | Information-processing capabilities; help  | Jehn and Mannix (2001); Jehn and Chatman (2000); Lovelace et al. (2001);                     |
|                        | in non-routine conditions; mutually        | Staehle (1999); Kirschner (2006); Mannix and Neale (2005); Nemeth et al.                     |
|                        | shared cognitions; divergent thinking      | (1992)   |
| Collaboration          | Help exchanges and division/sharing of     | Pareek (2002b); Kirschner (2006); D'Amour <i>et al.</i> (2005); Lindeke and Block            |
| (Voluntary & non-      | tasks; mutual respect; partnership; better | (1998); Alpert et al. (1992); Pike et al. (1993); Siegler and Whitney (1994);                |
| hesitant help          | TP   | D'Amour (1997); Corser (1998)  |
| requests &             | Coordination and knowledge sharing;        | Roschelle and Teasley (1995); D'Amour <i>et al.</i> (2005); Morin (1996); Evans              |
| exchanges, further     | interdependency, create synergy            | (1994); Alpert <i>et al.</i> (1992); Henry <i>et al.</i> (1992)                              |
| division of tasks,     | Process (interactive, dynamic,             | D'Amour <i>et al.</i> (2005); Sullivan (1998); Stichler (1995); Hanson <i>et al.</i> (2000); |
| positive response to   | transforming, negotiation, compromise)     | Liedtka and Whitten (1998)   |
| help requests)         | Collegial relationship; communication      | King (1990); Pike <i>et al.</i> (1993); Arslanian-Engoren (1995); Henneman (1995);           |
|                        |  | Stichler (1995)  |

| Table 2.8: The constituents of TE | for the study and associated attributions | , concepts, findings |
|-----------------------------------|---|----------------------|
|                                   |   |                      |

| TE Constituents      | Attributions/concepts/findings           | References  |
|----------------------|--|---|
| Task Clarity         | Foremost and fundamental activity        | Jeffery et al. (2005); Savelsbergh et al. (2010)                              |
| (Well defined goals  | Steered in a specified direction         | Govindarajan and Gupta (2001) and Schweiger et al. (2003)                     |
| and roles, no        | Goal Setting and better TP               | Weldon and Weingart, (1993); Earley and Shalley (1991); Hecht et al. (2002);  |
| confusion)           |  | Hyatt and Ruddy (1997); Aubé and Rousseau (2005)                              |
| Autonomy             | Empowerment dimension; freedom;          | Champy (1995); Kirkman and Rosen (1999, 2000); Hackman (1987);                |
| (Free to decide ways | independence                             | Robichaud et al. (2001); Petter et al. (2002)                                 |
| of working,          | Self-motivation and satisfaction; self   | Deci et al. (1981); Grolnick and Ryan (1989); Deci et al. (1989); Deci and    |
| prioritize at own,   | determination; job satisfaction          | Ryan (1985); Abdulla <i>et al.</i> (2011)                                     |
| freedom in vital     | Enhance Performance                      | Benware and Deci (1984); Koestner et al. (1984); Cohen and Bailey (1997)      |
| aspects & areas)     | Involvement                              | Lawler III (1986); Arshadi (2010); Blechert et al. (1987)                     |
| Support              | Resource adequacy: Material and HR       | Pareek (2002b); Townsend et al. (1998); Pazos and Beruvides (2011); Lennox    |
| (Adequacy and no     |  | (2001); Campany <i>et al.</i> (2007)  |
| lack of human,       | Conducive climate/context;               | Ross et al. (2008); Spreitzer (1996); Doolen et al. (2006); Sawyer and Guinan |
| financial & other    | supportiveness e.g. sociopolitical supp. | (1998); Campion et al. (1993); Gladstein (1984)                               |
| resources, presence  | Boost Morale, satisfaction,              | Eccles et al. (2010); Doolen et al. (2006); Heaney et al. (1995)              |
| of needed            | Allowing innovation, new ideas           | Anderson and West (1998); Sudhakar et al. (2011)                              |
| competencies)        | Instrumental and emotional (behavioral   | Aubé & Rousseau (2005); Tardy (1985); Marks et al. (2001); Eby and            |
|                      | i.e. supportive behaviors)               | Dobbins (1997); Campion et al. (1993); Tarricone and Luca (2002)              |
| Accountability       | Monitoring & feedback; performance &     | Marx and Squintani (2009); Edwards and Ewen (1996); Fedor et al. (1999);      |
| (Sense of            | achievement tracking; peer evaluation    | Carpenter et al. (2006); Asproni (2004); Dew (1996); Pareek (2002b); May      |
| responsibility,      |  | and Gueldenzoph (2006)  |
| assessing the extent | Empowerment dimension                    | Cunningham et al. (1996); Pareek (2002b)                                      |
| of achievements)     | Critical for TP                          | Yang and Choi (2009); Smith (1996)  |
| Team                 | Task motivation; work orientation        | Spreitzer (1995); Thomas and Velthouse (1990); Conger and Kanungo (1988)      |
| Empowerment          | Meaningfulness, autonomy, control,       | Kirkman and Rosen (1999, 2000); Özaralli (2003); Conger and Kanungo           |
| (Aggregate of Task   | psychological enabling; authority        | (1988); London (1993); Menon and Borg (1995)                                  |
| Clarity, Autonomy,   | Better TP and TE; better processes       | Kirkman and Gibson (2004); Burpitt and Bigoness (1997); Hyatt and Ruddy       |
| Support and          |  | (1997); Wellins et al. (1991); Gondal and Khan (2008)                         |
| Accountability)      | Delegation of power; lessens uncertainty | Conger and Kanungo (1988); Kay et al. (2008); Campion et al. (1993); Jong     |
|                      |  | <i>et al.</i> (2000); Bowen and Lawler III (1992)                             |

Team Empowerment (TEmp) is a noticeable distinct variable as well as an important contributor to the TE literature. It more often relates to the team function that is related to completion of tasks. But TEmp is also viewed as a process for rendering a sense of control, authority, meaningfulness and motivation to employees. However, TEmp is associated with both situational and psychological aspects, where situational empowerment means delegation of decision making authority while psychological empowerment attributes a feel of being authorized to do things. All seven factors contribute towards TE.

As reflects through the literature in Table 2.8, the TE framework (Pareek, 2002b) has interlinked constituents. For e.g. research suggests that cohesiveness can reduce communication barriers and thus promote collaboration (Powell et al., 2004); Clear norms and goals (i.e. Task Clarity) develop cohesion (Kozlowski and Ilgen, 2006); Cohesive members are supportive and are clearer about their tasks (Jong *et al.*, 2000), cohesion leads to support as well as task clarity; Frequent interactions or communication (collaboration) facilitate information interchange and discussions (Campion et al., 1993; Goodman et al., 1986) which means collaboration promote confrontation; the procedures and actions to conflict resolution increase cohesiveness among team members (Capozzoli, 1995; Ross et al., 2008) i.e. confrontation enhances cohesion; Task clarity must lead to share responsibility and accountability for achievement (Sundstrom et al., 1990) hence task clarity facilitates accountability; Conflicts around the interpretation of a problem can be the motor of further communication (Dillenbourg et al., 1996), hence confrontation increases collaboration. Therefore, mutual reinforcement and overlapping depicts the integral nature of Pareek's (2002b) TE framework likewise Integral Team Effectiveness Measure (ITEM) by Cacioppe and Stace (2009).

The dimensions of TF and TEmp can also be viewed as team and task function respectively. Volmer and Sonnentag (2011) illustrated that task and team functions are two aspects of teamwork and both can be considered as team roles which have been defined as "a set of behaviors that are interrelated with the repetitive activities of others and characteristic of the person in a particular setting" (Stewart *et al.*, 2005, p. 344). Task functions describe functions that must be performed to accomplish team task and team functions represent the interaction between team members (McIntyre and Salas, 1995) that indirectly contribute to the fulfillment

of a team's task. Hence team functions are additional layers of requirements that have to be met to harmonize the dynamics of the team so that any individual is able to work together effectively with others (Cannon-Bowers *et al.*, 1995; Cooke and Kiekel, 2001; Cooke *et al.*, 2003). Researchers have acknowledged task and team functions to be necessary and important for effective teamwork (Stevens and Campion, 1994). Team Processes have potential to influence team effectiveness as well as to mediate the relationship between input and output (Doolen *et al.*, 2006). Thus the team processes of team function like cohesion, confrontation and collaboration, as well as those of the task function like team empowerment (and its constituents) altogetherly attribute the team effectiveness.

# 2.5 THE PROPOSED RELATIONSHIPS

The hypotheses for studying the variables independently as well as the predictive associations will be framed in the early sections of the next chapter. The three proposed associational relationships are visualized in Figure 2.3, 2.4 and 2.5. The hypotheses will determine the direction (positive or negative) of the associations.

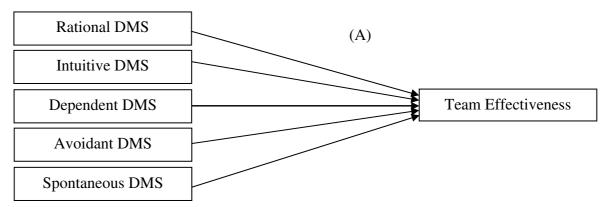


Figure 2.3: Proposed Relationship of GDMS with TE

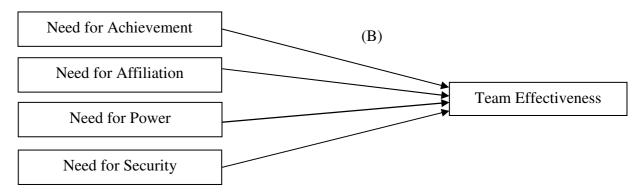


Figure 2.4: Proposed Relationship of NP with TE

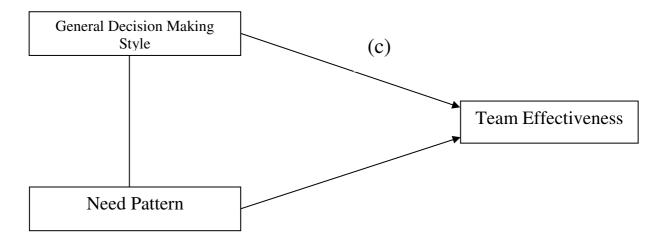


Figure 2.5: Proposed Relationship of GDMS and NP with TE

# **2.6 CHAPTER SUMMARY**

The flow of the literature review was planned at the outset before presenting the review. The chapter began with discussion on the reasons for selecting the specific variables for research. Afterwards, it incorporated different sections/sub sections on the relevant research studies. Specifically the chapter highlighted studies on GDMS (1995-2011), studies on the association of the styles with performance and effectiveness (1997-2011), studies on need pattern/secondary motives inclusive of early views on NP (before 1997) as well as recent views on NP (since 1997), studies on TE (1997-2011), latest TE studies in India (2005-2012), and the studies relevant to the constituents of TE in the current research. The final section of the chapter visualized the proposed relationship amongst the study variables. The direction of associations will be elaborated in the next chapter.

So far from this chapter, GDMS is observed to be a well researched framework that has been studied individually as well as in association with other variables. Various styles (Rational, Intuitive, Dependent, Avoidant and Spontaneous) have been differently related to performance and effectiveness. Unlike earlier, the contemporary researchers attribute nAff as an important motive for team and organizational effectiveness. In earlier and recent researches, other motives in relation to performance and effectiveness have more or like similar attributions, for e.g. nAch (+ve), nSec (-ve) and nPow (+ve). Hardly any latest TE study in India has explored the impact of personality attributes on TE. Though TE studies reflect many constituting components, yet recent conceptualization highlight TE as the combination of team functions

and task functions. The Constituents of team functions and task functions are mutually overlapping and reinforcing. The last section of the chapter diagrammatically visualized the proposed relationships amongst the study variables. The next chapter will highlight the hypotheses based on the literature surveyed so far.

# **RESEARCH METHODOLOGY**

This chapter introduces the adopted methodological approach to the study. First, it gives a brief explanation of the research design, followed by the objectives and the hypotheses with respect to all the objectives. Further, the approaches to test the hypotheses and accomplishing the objectives are highlighted. Next, the detailed descriptions about the target population and the sample have been provided. Subsequently, the instruments utilized for data collection are explained. Towards the end, the data collection method and approach is elaborated, and the data analysis tools and techniques are described.

### **3.1 THE RESEARCH DESIGN**

The present study takes on a non experimental or survey based cross sectional research design i.e. one time collection of data from the respondents. Based on the responses of Indian executives, it tends to explore GDMS, NP and TE as well as the association between the dependent variable (TE) and two independent variables (GDMS and NP). As per the requirement of the research design, the variables are to be measured through survey. Henceforth, standardized scales are being used to capture the responses.

# **3.2 THE OBJECTIVES**

The following are the objectives of the study:

O1: To study the general decision making style of executives in select Indian Organizations.

O2: To study the need pattern of executives in select Indian Organizations.

O3: To study the team effectiveness of executives in select Indian Organizations.

O4: To study general decision making style and need pattern as predictors of team effectiveness.

O4a: To study the general decision making style as predictor of team effectiveness.

**O4b**: To study the need pattern as predictor of team effectiveness.

**O5**: To open new vistas of research.

# **3.3 THE HYPOTHESES**

The hypotheses within each objective are drawn on the basis of literature review presented in the previous chapter. Still a brief account of literature alongwith the hypotheses pertaining to the same are given below:

# 3.3.1 Hypotheses within O1

(O1: To study the general decision making style of executives in select Indian Organizations)

Rational DMS has been associated with better performance, prosocial behaviors and is considered as a better approach (for e.g. Tambe and Krishnan 2000; Loo, 2000; Augier, 2001; Gupta, 2010; Kalantari, 2010). Intuitive style is also considered good when balanced with rational style and nature of dependency determines the appropriateness of dependent style (Spicer and Sadler-Smith, 2005). The avoidant DMS is attributed as detrimental for performance (for e.g. Flood *et al.*, 2000) and the spontaneous style is also not appropriate for all position profiles (for e.g. Klein, 1993, 1997; Harrison and Horne, 2000). Hence, the hypothesis here is:

# H1: Indian executives have Rational DMS as their major DMS, Intuitive DMS and Dependent DMS as their back up DMS, and Avoidant DMS as well as Spontaneous DMS are least preferred in their decision making approaches.

Previous researchers utilizing GDMS have been reporting conceptual differences but mutual correlations among the five styles for e.g. Scott and Bruce (1995), Loo (2000), Thunholm (2004) etc. Hence the hypothesis pertaining to this is:

# H2: There is mutual correlation among the constructs of GDMS.

The literature review highlighted that differences in DMS are possible across individuals and situations (for e.g. Salo and Allwood, 2011; Hablemitoglu and Yildirim, 2008), hence pertaining to this, a variation in various GDMS is expected across the attributes like age/work experience, gender, education, industry and sector. The hypotheses are:

# H3a: Decision making styles of Indian executives vary across levels of experience.H3b: Decision making styles of Indian executives vary across males and females.

H3c: Decision making styles of Indian executives vary across educational qualifications. H3d: Decision making styles of Indian executives vary across industries.

H3e: Decision making styles of Indian executives vary across the public and private sector.

# 3.3.2 Hypotheses within O2

(O2: To study the need pattern of executives in select Indian Organizations)

The high nAch and nPow are associated with positive behaviors (for e.g. Pareek 1974, Baruch *et al.*, 2004 and Sandalgaard *et al.*, 2011). Recent views have begun to consider nAff as important for better work behaviors (for e.g. Tyler and Bladder, 2003; Van der Vegt and Bunderson, 2005; Solansky 2011 etc.). The low nSec has been attributed as important for exhibiting better work behaviors (for e.g. Sahu, 2009; Bhat and Shah, 2010 etc.). Hence based on the above arguments and also on the views that members of collectivist culture have higher identification or nAff (Verma, 1985), the hypothesis here is:

# H4: Indian executives have higher nAch and also have comparative nPow as well as nAff, but they possess lower nSec.

There are evidences that needs are overlapping, individuals may have more than one need at a time, and individuals have combinations of needs for e.g. Gomes (2011), Greenstein (2000), Sanghi (1998) etc. In other words, the needs are mutually inter linked. For instance, having good relations can be a source of achievement for people in a collectivist society like India (Pandey, 2004). Hence drawing on such views, the hypothesis is:

### H5: Secondary motives/needs are mutually correlated but conceptually different.

The needs vary across individuals and circumstances (for e.g. Gomes, 2011 and Alderfer, 1969), hence it is expected that the need pattern (i.e. secondary motives) vary across the attributes like age/work experience, gender, education, industry and sector. The hypotheses are:

H6a: Secondary motives or needs of Indian executives vary across levels of experience.
H6b: Secondary motives or needs of Indian executives vary across males and females.
H6c: Secondary motives or needs of Indian executives vary across educational qualifications.

H6d: Secondary motives or needs of Indian executives vary across industries.

H6e: Secondary motives or needs of Indian executives vary across the public and private sector.

# 3.3.3 Hypotheses within O3

(O3: To study the team effectiveness of executives in select Indian Organizations)

Based on the literature (for e.g. Kirkman and Rosen, 1999; Özaralli, 2003; Yang and Choi, 2009; Mathieu *et al.*, 2006), the Indian executives are assumed to possess considerable team empowerment and team functioning (towards the higher levels, above 60%). In turn, they are expected to possess considerable TE. Hence the hypotheses are:

H7a: Indian executives have considerable (above 60%) levels of team functioning.
H7b: Indian executives have considerable (above 60%) levels of team empowerment.
H7c: Indian executives have considerable (above 60%) levels of team effectiveness.

Being an integral framework of TE, the dimensions of team functioning and team empowerment are interlinked and overlapping likewise the scholars suggesting that team function is an additional layer to reinforce the task function and both lead to effectiveness (for e.g. Volmer and Sonnentag, 2011). Hence the hypothesis is:

# H8: There is mutual correlation between team functioning and team empowerment.

Team effectiveness measurement using perceptions of individuals has gained wide acceptance (for e.g. Flood *et al.*, 2000; Wiesenfeld *et al.*, 2001; Kirschner, 2006; Jong *et al.*, 2008). Hence the variation in perceived TE and its constituents is expected due to the differences in perceptions of individuals of varied age, experience, gender, education, industry and sector. Hence the hypotheses here are:

H9a: Team Effectiveness of Indian executives varies across levels of experience.
H9b: Team Effectiveness of Indian executives varies across males and females.
H9c: Team Effectiveness of Indian executives varies across educational qualifications.
H9d: Team Effectiveness of Indian executives varies across industries.
H9e: Team Effectiveness of Indian executives varies across the public and private sector.

H9f: Team Functioning of Indian executives varies across levels of experience.

H9g: Team Functioning of Indian executives varies across males and females.

H9h: Team Functioning of Indian executives varies across educational qualifications.

H9i: Team Functioning of Indian executives varies across industries.

H9j: Team Functioning of Indian executives varies across the public and private sector.

H9k: Team Empowerment of Indian executives varies across levels of experience.

H91: Team Empowerment of Indian executives varies across males and females.

H9m: Team Empowerment of Indian executives varies across educational qualifications.

H9n: Team Empowerment of Indian executives varies across industries.

H90: Team Empowerment of Indian executives varies across the public and private sector.

# 3.3.4 Hypothesis within O4

(O4: To study general decision making style and need pattern as predictors of team effectiveness)

According to Jong *et al.* (2000), personality and biographic characteristics are related to group processes and outcomes (Barrick *et al.*, 1998; Kichuk and Wiesner, 1997). Liang *et al.* (2007) also noticed that researchers have used the personality characteristics of team members to find out the measures for team performance. Molleman (2005) pointed out that several studies have examined the impact of personality traits of team members on team functioning and outcomes for e.g. conscientiousness (goal directed, responsible for good performance, persistence, no procrastination) and emotional stability (stable person perceive no threat but rather a challenge). Hypotheses here are based on researches of McGrath *et al.* (1995) and Mannix and Neale (2005) who highlighted cognitive style and motivational factors can be used in compositional researches. Also, on the mean value compositional research (Mathieu *et al.*, 2008) and the additive model (Molleman, 2005) that suggest that average/aggregate personality attributes have an impact on team effectiveness, i.e.:

H10: Various general decision making styles and need pattern together predict Team Effectiveness.

#### 3.3.4.1 Hypotheses within O4 (a)

O4 (a): To study the general decision making style as predictor of team effectiveness

Based on the literature on various styles (for e.g. Goll and Rasheed, 1997; Augier, 2001; Gupta, 2010; and Kalantari, 2010), a positive association of Rational DMS with TE is assumed. Moreover, based on Leykin and DeRubeis (2010) and other scholars who are against high use of intuition, here it is expected that Intuitive style might lessen the TE. Also, the Spontaneous DMS with a tendency to decide at discretion without consultation is expected to relate negatively with TE. Furthermore, positive association between Dependent DMS and TE is assumed because in the context of teamwork, the dependent style is expected to enhance TE with members seeking advices from others to improve their decisions (Iyengar *et al.*, 2006; Schwartz *et al.*, 2002). Subsequently, a negative association of Avoidant DMS with TE is assumed on the grounds of association of this style with stress, poor performance, rescuing responsibility (for e.g. Thunholm 2008 and Flood *et al.*, 2000). Hence the hypotheses here are:

H10a: General decision making style predicts Team Effectiveness.
H10<sub>a1</sub>: Rational DMS positively predicts Team Effectiveness.
H10<sub>a2</sub>: Intuitive DMS negatively predicts Team Effectiveness.
H10<sub>a3</sub>: Dependent DMS positively predicts Team Effectiveness.
H10<sub>a4</sub>: Avoidant DMS negatively predicts Team Effectiveness.
H10<sub>a5</sub>: Spontaneous DMS negatively predicts Team Effectiveness.

# 3.3.4.2 Hypotheses within O4 (b)

O4 (b): To study the need pattern as predictor of team effectiveness

The literature views about the various secondary motives indicate a positive association of nAch (for e.g. Baruch *et al.*, 2004; Kunnanatt, 2008; Salami 2008 etc.), nPow (for e.g. Frieze and Boneva, 2001; Winter, 2002; Sandalgaard *et al.*, 2011 etc.) and nAff (for e.g. Fiol and O'Conner 2005; Tyler and Bladder, 2003; Pandey, 2004; Solansky, 2011 etc.) with performance related behaviors. However, the alternative views pertaining to nSec suggest that lower nSec relates to higher performance (for e.g. Abdulla *et al.*, 2011; Cruz *et al.*, 2009 etc.). Hence based on the reviews, the following are the hypotheses:

H10b: Need Pattern/Motives predict Team Effectiveness.
H10<sub>b1</sub>: Need for Achievement (nAch) positively predicts Team Effectiveness.
H10<sub>b2</sub>: Need for Power (nPow) positively predicts Team Effectiveness.
H10<sub>b3</sub>: Need for Affiliation (nAff) positively predicts Team Effectiveness.
H10<sub>b4</sub>: Need for Security (nSec) negatively predicts Team Effectiveness.

Note: The objective (O5) will be served through the findings of this study. The managerial implications based on the results and discussion will be incorporated in the second last chapter of the thesis. Subsequently, the scope for future work will open new vistas of research.

# **3.4 ACCOMPLISHING THE OBJECTIVES**

The stated objectives will be accomplished through the hypotheses testing. Table 3.1 highlights the techniques which will be applied to accomplish the objectives (i.e. for testing the hypotheses of the study).

| Obj. | Hypotheses                     | Techniques   |
|------|--------------------------------|--|
| 01   | H1                             | Descriptive statistics of the variable and its factors   |
|      | H2                             | Correlation analysis                                     |
|      | H3a, H3c, H3d                  | One way ANOVA (analysis of variance) to check the        |
|      |                                | variance across subgroups                                |
|      | H3b, H3e                       | Independent sample t-test to check the difference across |
|      |                                | the two groups   |
| O2   | H4                             | Descriptive statistics of the variable and its factors   |
|      | H5                             | Correlation analysis will be used.                       |
|      | H6a, H6c, H6d                  | One way ANOVA (analysis of variance) to check the        |
|      |                                | variance across subgroups                                |
|      | H6b, H6e                       | Independent sample t-test to check the difference across |
|      |                                | the two groups   |
| O3   | Н7а, Н7b, Н7с                  | Descriptive statistics of the variable and its factors   |
|      | H8                             | Correlation analysis                                     |
|      | H9a, H9c, H9d, H9f,            | One way ANOVA (analysis of variance) to check the        |
|      | H9h, H9i, H9k, H9m,            | variance across subgroups                                |
|      | H9n                            |  |
|      | H9b, H9e, H9g, H9j,            | Independent sample t-test to check the difference across |
|      | H9l, H9o                       | the two groups   |
| O4   | H10                            | Regression analysis                                      |
| O4a  | $H10a, H10_{a1}, H10_{a2},$    | Regression analysis                                      |
|      | $H10_{a3}, H10_{a4}, H10_{a5}$ |  |
| O4b  | $H10b, H10_{b1}, H10_{b2},$    | Regression analysis                                      |
|      | $H10_{b3}, H10_{b4}$           |  |

| Table 3.1: Techniques | for accomplishing | objectives via | hypotheses | testing |
|-----------------------|-------------------|----------------|------------|---------|
|-----------------------|-------------------|----------------|------------|---------|

**Summary:** The descriptive statistics will provide the particulars about the variables as well as their constituting factors. The variation across subgroups will be diagnosed using ANOVA (analysis of variance) for more than 2 groups, for e.g. across experience levels (senior, middle and junior). Likewise, the differences between the two groups will be explored through independent sample t-tests, for e.g. across the sector (public and private). Moreover, the relationship of one variable with other will be diagnosed using correlation and the predictive relationships will be identified through regression analysis.

#### **3.5 THE TARGET POPULATION**

For the present study, the target population is senior, middle and junior Indian executives from public and private sector organizations having annual turnover of above 100 Crores INR (Indian National Rupees). The focused industries are Manufacturing, IT-ITES (Informational Technology and IT Enabled Services), Telecom, Service and PME (Power Mining and Exploration). Manufacturing industry firms are indulged in construction material manufacturing, consumer durables manufacturing, automobile and automotive manufacturing, heavy electrical, textile, FMCG (fast moving consumer goods) and other products. IT-ITES industry firms are in business process outsourcing and consultancy; Service industry firms are into banking and finance service, media service, health, hospitality and developmental service. PME industry firms are concerned with hydro power, thermo power, coal and metal mining, oil and gas exploration. The criteria for junior, middle and senior categories is prefixed as less than 5 years experience (i.e. Junior), 5 to 15 years experience (i.e. Middle) and above 15 years experience (i.e. Senior).

### 3.5.1 The Sample

The final sample consisted responses of 541 participants. Their particulars are given in Table 3.2.

The description of the same is as: Majority of the participants are Males (85%), have Management education (51%), belong to the Manufacturing Industry (43%), are from Private Sector (88%) and Junior level (47%). Then most are from IT-ITES (Information Technology and IT enabled Service) Industry (32%), have done Engineering (29%) and belong to the Middle level (38%). Rest other participants are Other Graduates (10%) and Post Graduates

(10%), are from Senior level (15%) and belong to other industries like Service (12%), PME (Power, Mining and Exploration, 7%) and Telecom (6%). Majority of Public sector participants are from Senior level (30/65 = 46%), have done Engineering (42/65 = 65%) and belong to PME Industry (32/65 = 49%). In the private sector, the majority has Management degree (260/476 i.e. 55%), most belong to Manufacturing (218/476 = 46%) and IT-ITES (176/476 = 37%) industries, and most are from Junior level (242/476 = 51%). Likewise, the majority of the Male participants has Management degrees (193/460 = 42%) followed by Engineering (151/460 = 33%), most males are from Manufacturing (222/460 = 48%) and then IT-ITES (119/460 = 26%) industries, and belong to Junior (193/460 = 42%) and Middle (188/460 = 41%) levels. Most Female participants are from IT-ITES (57/81 = 70%) and a considerable number of females are also from the Service (11/81 = 14%) Industry, most females belong to Junior level (62/81 = 77%), and most have Management degrees (62/81 = 77%) followed by Other Graduation (10/81 = 12%). No female participant is from PME, also no Telecom and IT-ITES firms are from Public sector.

|            |                          | Sector   |           | Gender    |          |
|------------|--------------------------|----------|-----------|-----------|----------|
| Attributes |                          | Public   | Private   | Male      | Female   |
|            |                          | (65) 12% | (476) 88% | (460) 85% | (81) 15% |
| Level      | Senior (81) 15%          | 30       | 51        | 79        | 2        |
|            | Middle (205) 38%         | 22       | 183       | 188       | 17       |
|            | Junior (255) 47%         | 13       | 242       | 193       | 62       |
| Education  | Management (276) 51%     | 16       | 260       | 193       | 62       |
|            | Engineering (154) 29%    | 42       | 112       | 151       | 3        |
|            | Other Graduates (56) 10% | 4        | 52        | 46        | 10       |
|            | Other Post Grad (55) 10% | 3        | 52        | 49        | 6        |
| Industry   | Manufacturing (231) 43%  | 13       | 218       | 222       | 9        |
|            | IT-ITES (176) 32%        | -        | 176       | 119       | 57       |
|            | Telecom (32) 6%          | -        | 32        | 28        | 4        |
|            | Service (63) 12%         | 20       | 43        | 52        | 11       |
|            | PME (39) 7%              | 32       | 7         | 39        | -        |

| Table 3.2: | The sample | statistics |
|------------|------------|------------|
|------------|------------|------------|

# **3.6 THE INSTRUMENTS FOR DATA COLLECTION**

As stated in chapter 1 and 2 that the frameworks for this study are based on GDMS (General Decision Making Style) of Scott and Bruce (1995); Secondary motives as suggested by Sanghi (1998), Luthans (2002, 2008), Pareek and Purohit (2010); and the team effectiveness in terms of team functioning (similar to team functions) and team empowerment (similar to task functions) conceptualized by Pareek (2002b). The description of the three standardized scales adopted for gathering responses of executives is as follows:

# 3.6.1 GDMS (General Decision Making Style) inventory

*Developer*: Scott and Bruce (1995)

Structure: 25 items, 5 Factors (i.e. Styles), 5 items each.

*Measures*: five decision making styles namely- Rational, Intuitive, Dependent, Avoidant and Spontaneous.

Each item has 5 choices namely- Strongly Disagree (1), Somewhat Disagree (2), Neither Agree Nor Disagree (3), Somewhat Agree (4), Strongly Agree (5)

*Sample items*: When making a decision, I consider various options in terms of a specific goal (Rational); When I make a decision, I trust my inner feelings and reactions (Intuitive); I rarely make important decisions without consulting other people (Dependent); I avoid making important decisions until the pressure is on (Avoidant); and I often make decisions on the spur of the moment (Spontaneous).

Reliability and Validity: High

# 3.6.2 NPS (Need Pattern Scale)

Developer: Sanghi (1998)

Structure: 30 Items, 5 Factors (i.e. Needs), 6 Items each.

*Measures*: Need for Security (nSec), Need for Aggression (nAgg), Need for Achievement (nAch), Need for Power (nPow), and Need for Affiliation (nAff).

All items except for nAgg have been adopted from this scale to capture the four secondary motives of Indian executives.

Each item is answered in terms of Yes (Agree=1) or No (Disagree=0). The sums of Yes (Agrees) give the scores of various needs as well as overall need pattern.

*Sample items*: At times I am in tension that I will be dismissed (nSec); I wish I would always achieve success in my work (nAch); I usually influence others more than they influence me (nPow); and I make it point of keeping in close touch with the doings and interests of my friends (nAff).

### Reliability and Validity: High

#### **3.6.3 TEAM (Team Effectiveness Assessment Measure)**

Developer: Pareek (2002b)

*Structure*: 28 Items, 2 Dimensions, 7 Factors (3 Factors in Dimension 1 and 4 Factors in Dimension 2), 4 items each factor.

*Measures*: Two Dimensions Team Functioning (3 Factors: Cohesion, Confrontation, Collaboration) and Team Empowerment (4 Factors: Task Clarity, Autonomy, Support, Accountability).

Each item has 5 choices of Not at all True (0), Very Little True (1), Slightly True (2), Fairly True (3), and Highly True (4)

For the even numbered items (i.e. 2,4,6,8,10,12,14,16,18,20,22,24,26,28), the scoring gets reversed as 0=4, 1=3, 2=2, 3=1, 4=1, (Pareek, 2002b)

Sample items: Cohesion: "Members of this team generally feel that their concerns and views are ignored by other members" (even); Confrontation: "Members of this group do not hesitate to express their differences with each other". Collaboration: "Members do not volunteer to help others" (even). All the constituent items of cohesion, confrontation, collaboration combine to form Team Functioning. Task Clarity: "The goals of this team are well defined"; Autonomy: "The team does not have autonomy in vital aspects of its working" (even). Support: "The team is given adequate resources to carry out its functions". Accountability: "No one cares to assess the true extent of achievement of the goals of the team" (even). All the constituent items of task clarity, autonomy, support, accountability combine to form Team Empowerment.

**Reliability and Validity:** High

### 3.7 DATA COLLECTION METHOD AND APPROACH

The accomplishments of the stated objectives foremostly required the responses from Indian executives on the stated variables. Three standardized scales (as described in section 3.6) had been administered for gathering the responses from the executives. The Industries had been

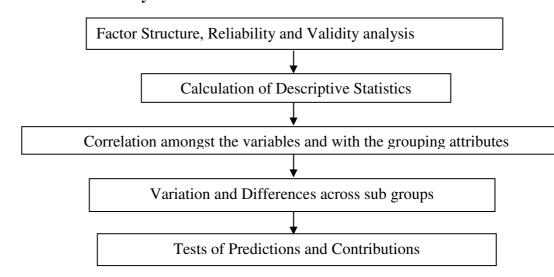
chosen at random and further the data was collected through face to face (during training programs as well as through personal visits) and online (through e-mail requests) modes. During both the personal and online modes, the objectives of taking the responses were stated as- "to identify the personality of individuals as well as to know how they perceive their teams". The interpretation of the items had been made easy through specifying the synonyms of typical words in the scales. The availability and interest of participants were duly respected. Respondents were given sufficient time to respond and their participation was confirmed only by submitting the filled-out questionnaire (no reward was given to them for participation). The questionnaire incorporated all the three scales (starting from GDMS, then NPS and then TEAM). At the introduction of the questionnaire it was requested to answer all the items on the basis of how each statement applies to the respondent and his/her organizational team. Concurrently, the participants were requested to fill their particulars like gender, education, total work experience (less than 5 years, 5 to 15 years and above 15 years) and the name of organization. In the beginning only, the respondents were assured that their personal and organizational identity will be kept confidential and hence the same would be maintained throughout the study. The questionnaires utilized were self administrative offering advantages like access to industry wide respondents, genuine and real self reflections, reduced monetary and time expenses of the researcher, and minimal chances of researcher biases. Moreover, unlike other surveys, it produced adequate responses (n=541).

#### **3.8 THE DATA ANALYSIS APPROACH**

### **3.8.1. Data Cleaning and Preparation for Analysis**

Total 607 filled responses were received and all were subjected to missing value analysis. Particularly those with missing relevant information (like non response on gender, education, experience, organization) were not considered participating. Moreover, the non response on items was also thoroughly checked and those having most unanswered items were excluded from consideration. Whereas, the responses with acceptable missing values were considered by replacing the missing value on items with the mean values of the relevant construct (for e.g. non response on a Spontaneous DMS item was replaced by the mean value of the rest of the item scores of Spontaneous DMS by that particular respondent). Till this time the sample size was reduced to 578. Afterwards, the normality of the data was analyzed. The normality statistics were brought within the range by deletion of the outliers. The final sample size (i.e.

541) was ceased when the Skewness (i.e. Asymmetry of data) and also the Kurtosis (i.e. Height of the distribution) were observed within the limits of less than  $\pm 2$  reflecting the normality of the data (Thunholm, 2004; Rotbring, 2010), for all the three scales. Though the individuals were requested to provide their perceptions about themselves and their teams, yet the data collection was not intended for teams but from individuals. Moreover, the Inter-rater reliabilities using Intra-class coefficient (ICC) within group inter rater agreement index rwg(i)-of James *et al.* (1984, 1993) were obtained on the three scales. The ICC values of above 0.75 on all the scales permitted for carrying out the hypothesis testing on aggregate scores (i.e. not team wise).



3.8.2 The flow of data analysis

Figure 3.1: The Flow of Analysis

Figure 3.1 shows the planned flow of data analysis. The major tool employed for analysis is SPSS (Statistical Package for Social Sciences) v17.0. The factor analysis (using the principal component method and varimax rotation) of GDMS and NPS will be done as per the relevance and appropriateness. GDMS is a construct developed in western (non-Indian) context by Scott and Bruce (1995). Factor Analysis of a non-Indian contextual scale is mandatory to assure whether the scale replicates its original factor structure or there is a shuffling in its structure for e.g. a scale on managerial effectiveness developed by Mott (1971) was found to be culturally different when its original three factor structure was obtained as two factors in a study by Chauhan *et al.* (2005). NPS is however an Indian Construct. Since only a few items have been adopted as per the purpose of this study, it becomes important to check whether the items

survive their original factor structure. TEAM will be retained as the original due to the conceptual foundation of TE for this study and it will be justified more clearly in the next chapter. Factor analysis of GDMS and NPS will confirm whether the data fits the original factor structure (the style and the motives) or any changes are required. The reliabilities of all the three scales will be calculated to ensure that the factor structure measures the intended constructs with sufficient consistency. Validity analysis will be carried out to determine that the obtained factor structure actually measures what it intends to measure. Afterwards, the descriptive statistics of the constructs will be calculated to observe the response pattern and to guide the interpretation of responses. Further, the correlations amongst the variables will be explored to understand their associations. The relationship of study variables with the demographic particulars of respondents will also be investigated. Then, the variation across subgroups like gender, sector, industry, experience etc. will be measured using independent sample t-tests and ANOVA analysis. Ahead, the regression analysis will render regression coefficients (β) of GDMS constructs (Rational, Intuitive, Dependent, Avoidant, Spontaneous) and NPS constructs (nSec, nAch, nAff, nPow) both together and independently as predictors of TE. The contributions of GDMS and NPS constructs together and independently towards the variance in TE will be measured using coefficient of determination  $(R^2)$  and adjusted  $R^2$ . The data analyses discussed so far will provide the results of the hypotheses. Ultimately, a comparative analysis of model fit indices between the Original Model (styles and needs as predictors of TE) and the Alternate Model (TE as a predictor of styles and needs) will be done using the software AMOS (Analysis of Moment Structures) v20.0.

#### **3.9 CHAPTER SUMMARY**

This chapter elaborated the methodological approach of the study. It first advanced the Research Design, the Objectives and the Hypotheses. Further, it presented the planned hypotheses testing procedures for accomplishing the Objectives and the Target Population and Sample for the study. Towards the end, it provided description of the Instruments for Data Collection, the Data Collection Method and Approach, and the Data Analysis Approach. Adopting a cross sectional survey based research design, responses from executives have been gathered using standardized scales. The data has been cleaned before being subjected to the main analysis. The next chapter will present the analysis and results based on the approaches planned in the current chapter.

# ANALYSIS AND RESULTS

This chapter begins with a presentation of factor analysis, reliabilities and validities of the constructs. The descriptive statistics and correlation results are discussed next. Further, the variation and differences in the variables across attributes like industry, experience, education etc. are diagnosed. The ending sections incorporate the prediction of TE and its constituents through GDMS and NP. Finally, the results of the hypotheses and a comparison of Original and Alternate Model is presented.

### **4.1 FACTOR ANALYSIS**

Factor analysis using Principal Component Analysis (PCA) method is being performed here to explore the unidimensionality of the constructs (i.e. the indicator of that all items of a single construct measure the same thing). Based on Netemeyer and Bearden (2003), in the PCA the eigenvalue 'greater than one' rule will be used to test the unidimensionality (where eigenvalues greater than one are equal to number of factors). Each construct must have only one eigenvalue of its value more than one, which enables all variables (items) to have as much variance on the same construct (c.f. Birasnav, 2009). PCA (using varimax rotation) of GDMS and NPS have proven that the constructs of the scales are unidimensional as per the stated criteria of unidimensionality. As mentioned in the previous chapter, TEAM construct is adopted as original. There are three major reasons and justifications for the same. First, the conceptual framework of TE in the study focuses TEAM constituents as conceptualized by Pareek (2002b). Second, Pareek (2002b) developed TEAM as a generic tool for assessing the effectiveness of a team by taking responses of individual team members and aggregating the same. Its trusted use is recommended in a number of books, for e.g. Biech, (2010); Pareek and Purohit, (2010) etc. TEAM has been used as original in the papers also, for e.g. Verma et al. (2012ab). The constituents of TEAM are not distinct but holistic and overlapping. There exists mutual reinforcement amongst its constituents. An attempt to investigate the factor structure of TEAM (Verma et al., 2012b) was observed as violating the basic conceptualization of TE. The researchers concluded that conceptually TEAM is an integral/holistic measure of TE likewise ITEM (Integral Team Effectiveness Measure) conceptualized by Cacioppe and Stace (2009). The third justifiable reason is that the obtained reliability coefficients of team functioning and team empowerment as well as of overall TEAM are observed to be satisfactory (above 0.7) and the content validity of TEAM is also established.

### 4.1.1 GDMS Factor Analysis

The KMO (Kaiser Meyer Olkin Measure of Sampling Adequacy) for GDMS was 0.827 (ideal values of KMO are: above 0.5 is acceptable, upto 0.7 is mediocre and above 0.7 is good enough, Kaiser, 1974). Bartlett's test of sphericity (which tests that items are uncorrelated in the population and that population correlation matrix is an identity matrix i.e. each item correlates perfectly "r=1" with only itself) was also significant (p<0.001). It ensured the justifiable applicability of factor analysis. Table 4.1 shows the eigenvalue, percentage of variance explained on each construct by the constituent items, and their factor loadings with respect to the GDMS.

| Item | Construct   | Items                 | Eigen       | % Variance   | Factor   | Cronbach's |
|------|-------------|-----------------------|-------------|--------------|----------|------------|
| No.  |             |                       | Value       |              | Loading  | alpha (α)  |
| 16   | Avoidant    | Avoid                 | 2.867       | 12.982       | 0.707    | 0.80       |
| 17   |             | Postpone              |             |              | 0.773    |            |
| 18   |             | Procrastinate         |             |              | 0.724    |            |
| 19   |             | At last minute        |             |              | 0.740    |            |
| 20   |             | Put off               |             |              | 0.670    |            |
| 1    | Rational    | Plan carefully        | 2.781       | 12.592       | 0.725    | 0.79       |
| 2    |             | Double-check          |             |              | 0.745    |            |
| 3    |             | Logical & systematic  | c           |              | 0.754    |            |
| 4    |             | Careful thought       |             |              | 0.656    |            |
| 5    |             | Various options       |             |              | 0.701    |            |
| 6    | Intuitive   | Rely on instincts     | 2.565       | 11.614       | 0.695    | 0.74       |
| 7    |             | Rely on intuition     |             |              | 0.681    |            |
| 8    |             | Which feels right     |             |              | 0.658    |            |
| 9    |             | Important to feel     |             |              | 0.620    |            |
| 10   |             | Trust inner reactions |             |              | 0.738    |            |
| 11   | Dependent   | Need assistance       | 2.454       | 11.112       | 0.707    | 0.72       |
| 12   | -           | Consult others        |             |              | 0.582    |            |
| 13   |             | Easy with support     |             |              | 0.704    |            |
| 14   |             | Use advice            |             |              | 0.732    |            |
| 15   |             | Steered by others     |             |              | 0.649    |            |
| 21   | Spontaneous | Snap decisions        | 2.363       | 10.699       | 0.706    | 0.72       |
| 22   | -           | At the moment         |             |              | 0.678    |            |
| 23   |             | Quick decision        |             |              | 0.722    |            |
| 24   |             | Impulsive decision    |             |              | 0.746    |            |
| 25   |             | What seem natural     |             |              | 0.387    |            |
|      |             |                       | Total Varia | nce =58.999% | GDMS (a) | 0.79       |
|      |             |                       |             |              |          |            |

Table 4.1: GDMS factor structure, eigen values, variance extracted and reliability coefficients

The rotated component matrix accounted for 58.999% variance. Factor 1 (Avoidant) had Eigen Value (EV)=2.867 and variance=12.982%; Factor 2 (Rational) had EV=2.781 and variance=12.592%; Factor 3 (Intuitive) had EV=2.565 and variance=11.614%; Factor 4 (Dependent) had EV=2.454 and variance=11.112% and Factor 5 (Spontaneous) had EV=2.363 and variance=10.699%. Henceforth, the factor structure of GDMS survived as original (Scott and Bruce, 1995). The last column of the Table 4.1 illustrates the Cronbach's alpha values or the reliability measures. Specific details pertaining to reliabilities are given in section 4.2.

# 4.1.2 NPS Factor Analysis

The KMO for NPS was 0.750 and Bartlett's test of sphericity was significant (p<0.001). Likewise the criteria stated earlier, the appropriateness of PCA for NPS was also justified. Originally the constructs (needs) of NPS had 6 items each, which however was not found stiff in the PCA. Few weak loadings of items on their respective constructs were observed. The PCA results with respect to NPS are shown in Table 4.2.

| Item | Construct | Items                       | Eigen        | % Variance    | Factor  | Cronbach's |
|------|-----------|-----------------------------|--------------|---------------|---------|------------|
| No.  |           |                             | Value        |               | Loading | alpha (α)  |
| 1    | nSec      | Always thinking future      | 2.032        | 15.518        | 0.432   | 0.56       |
| 5    |           | Worried for social prestige |              |               | 0.439   |            |
| 6    |           | Financial security concern  |              |               | 0.468   |            |
| 10   |           | Friendship if secured       |              |               | 0.565   |            |
| 11   |           | Tension of dismissal        |              |               | 0.553   |            |
| 18   |           | Worried for savings         |              |               | 0.648   |            |
| 3    | nAff      | Friendship than anything    | 2.009        | 15.343        | 0.638   | 0.59       |
| 4    |           | Become much attached        |              |               | 0.728   |            |
| 9    |           | Hate staying alone          |              |               | 0.379   |            |
| 12   |           | In touch of other's deeds   |              |               | 0.507   |            |
| 15   |           | Outing with friends         |              |               | 0.586   |            |
| 17   |           | As many possible friends    |              |               | 0.442   |            |
| 2    | nAch      | Wish more responsibility    | 1.959        | 14.961        | 0.505   | 0.53       |
| 7    |           | Wish do better always       |              |               | 0.550   |            |
| 19   |           | Mind with ambitions         |              |               | 0.466   |            |
| 23   |           | Wish succeed always         |              |               | 0.687   |            |
| 8    | nPow      | Tell people to do           | 1.856        | 14.174        | 0.476   | 0.52       |
| 13   |           | Like to have disciples      |              |               | 0.484   |            |
| 14   |           | Influence others more       |              |               | 0.692   |            |
| 21   |           | Easily lead and discipline  |              |               | 0.401   |            |
| 22   |           | Lead better than others     |              |               | 0.530   |            |
|      |           |                             | Total Varian | ice = 59.996% | NPS (a) | 0.71       |

Table 4.2: NPS factor structure, eigen values, variance extracted and reliability coefficients

Note: item no 16, 20 and 24 have been excluded from the study due to their weak factor loadings

The items of NPS constructs of nAff and nSec loaded on their respective factors. However on nAch, the two items- item 16 (I don't like those .....) and 20 (I would complete one task....) which originally are for nAch loaded weak (< 0.2). Likewise on nPow, item 24 (I think I am driven....) which originally is of nPow loaded very weak (< 0.1). Hence, the three items (16, 20 and 24) were deleted. The rotated component matrix accounted for 59.996% variance. Factor 1 (nSec) had Eigen Value (EV)=2.032 and variance= 15.518%; Factor 2 (nAff) had EV=2.009 and variance=15.343%; Factor 3 (nAch) had EV=1.959 and variance=14.961%; and Factor 4 (nPow) had EV=1.856 and variance=14.174%. After deletion of the three items, the changed factor structure of NPS has 4 items for nAch and 5 items for nPow. ( $\alpha$ : section 4.2).

| Construct   | No. | Items                                      | Sub Constructs  | (α)  |
|-------------|-----|--|-----------------|------|
| Team        | 2   | Views/concerns not ignored                 | Cohesion        | 0.71 |
| Functioning | 4   | Problems discussion not avoided            | Confrontation   |      |
|             | 6   | Voluntarily help each other                | Collaboration   |      |
|             | 9   | Support each other                         | Cohesion        |      |
|             | 11  | Alternative solutions                      | Confrontation   |      |
|             | 13  | Division of task                           | Collaboration   |      |
|             | 16  | Function as strong                         | Cohesion        |      |
|             | 18  | Not hesitant to decide                     | Confrontation   |      |
|             | 20  | No hesitation in help request              | Collaboration   |      |
|             | 23  | Group decisions backed up                  | Cohesion        |      |
|             | 25  | Differences are expressed                  | Confrontation   |      |
|             | 27  | Help requests responded positively         | Collaboration   |      |
| Team        | 1   | Goal are well defined                      | Task Clarity    | 0.83 |
| Empowerment | 3   | Free to decide working ways                | Autonomy        |      |
|             | 5   | Adequate resources to carry out functions  | Support         |      |
|             | 7   | High sense of responsibility               | Accountability  |      |
|             | 8   | No confusion about main task               | Task Clarity    |      |
|             | 10  | Perform given tasks & prioritize also      | Autonomy        |      |
|             | 12  | Adequate support for task performance      | Support         |      |
|             | 14  | Assess extent of goal achievements         | Accountability  |      |
|             | 15  | Clarity about roles                        | Task Clarity    |      |
|             | 17  | Enough freedom in own areas                | Autonomy        |      |
|             | 19  | Enough competent persons present           | Support         |      |
|             | 21  | Accountability assessment ways present     | Accountability  |      |
|             | 22  | Clarity about how to move towards goal     | Task Clarity    |      |
|             | 24  | Autonomy in vital aspects of working       | Autonomy        |      |
|             | 26  | No lack of human & financial resources     | Support         |      |
|             | 28  | Internal mechanisms of progress assessment | Accountability  |      |
|             |     |  | TEAM $(\alpha)$ | 0.88 |

4.1.3 Factor Structure of TEAM

The sub-constructs attributions of all the items of Team Functioning and Empowerment are shown in fourth column of Table 4.3. The TE score is rendered through the addition of scores of all the items. The last column shows the reliability coefficients of the constructs. The next subsection (4.2) elaborates specifications about reliability.

### **4.2 RELIABILITY ANALYSIS**

Reliability is "an assessment of the degree of consistency between multiple measurements of a variable" (Hair *et al.*, 2005, p. 117). The systematic variance of a construct is attributed through reliability analysis. Various methods are prescribed for assessing reliability for e.g. test-retest method, internal consistency method, split half method and inter-rater method (Birasnav, 2009). The internal consistency reliability method is being employed here to analyze the reliabilities of the constructs of the three scales. Herein, Cronbach's alpha ( $\alpha$ ) indicates the construct's reliability which represent that all items of a construct measure the same and indicate the achievement of strong inter-correlation (Cronbach, 1951).

Various minimum acceptable limits for cronbach's  $\alpha$  have been suggested by scholars; however these are rules of thumb (Nunnally, 1978). For e.g. Hair *et al.* (2005) and Indrayan and Sarmukaddam (2001) set 0.60 as the acceptable limit for scales, while Ko and Stewart (2002) advocate cronbach's  $\alpha$  of minimum 0.60. However, scales measuring social constructs with alpha's ranging from 0.5 to 0.9 have been described as having "acceptable" internal consistency. A low value of alpha could be due to a low number of questions (Tavakol and Dennick, 2011). The alpha coefficients for GDMS (0.79) and its constructs have fairly high reliability to accept: Rational (0.79), Intuitive (0.74), Dependent (0.72), Avoidant (0.80) and Spontaneous (0.72), Table 4.1. Likewise, the TEAM (0.88) and its constructs Team Empowerment (0.83) and Team Functioning (0.71) seem to have fairly high alpha values (Table 4.3). The alpha of NPS (0.71) is fairly high as well, however those of its constructs seem acceptable but not fairly high for e.g. nSec (0.56), nAff (0.59), nAch (0.53) and nPow (0.52), (Table 4.2). Because the social science researchers have been using 0.5 and above alpha values as acceptable (for e.g. Pelzang, 2010), hence here all the constructs being used for this study having alpha above 0.5 are considered reliable.

### **4.3 VALIDITY ANALYSIS**

"A test is valid if it measures what it claims to measure" (Kline, 1986). The abstractions like needs and decision making styles are difficult to validate because these constructs can capture the intended ideas but cannot be claimed to be the only measurement criterias for needs and decision making styles. However, Validity of a questionnaire is very much important for research study as if reliability, and hence it will also be ascertained here. Drawing on Groth-Marnat (1997) who explained three broad methods of validity i.e. content-related validity (face and content validity), construct-related validity (convergent and discriminant validity), and criterion-related validity (predictive and concurrent validity), it is being tested here whether the constructs fit the criteria or not.

#### **4.3.1 Content Related Validity**

As per content-related validity (the face and content validity) which is the representativeness and relevance of instruments for measuring the intended content, the three scales employed are appropriate because all three are "standardized measures". In other words, the face validity (which is based on the literature and expert views) and the content validity (which is based on the participant), (Groth-Marnat, 1997), both are well established for all the three scales.

### 4.3.2 Construct Related Validity

Having high correlation between items of a construct renders the Convergent validity and having low or negative correlation between items of different constructs establishes Discriminant validity (Groth-Marnat, 1997). Though a moderate correlation (e.g.  $r \ge 0.40$ ) between an item and its construct is also acceptable for convergent validity, but obtaining high correlation value between such item and other construct represents a scaling error (Toth *et al.*, 2005). With this perspective also, the constructs of GDMS and NPS are having convergent and discriminant validity both. Table 4.4 and 4.5 show the convergent validities of the constructs of GDMS and NPS. Convergent validity is attributed through the values representing the correlation coefficient between an item and its own construct whereas the discriminant validity symbolizes no significant correlation of an item of a construct with any other construct. Table 4.4 and 4.5 reflect that item pertaining to a certain construct has a high correlation with that construct only. Also, no high correlation of an item of a construct with any other construct.

seems to exist. For e.g. item of Rational DMS correlates high with Rational factor (Table 4.4), the item of nSec correlates high with nSec Factor (Table 4.5), and so on.

| Table 4.4. Example for convergent and discriminant validity of ODIVIS constructs |          |           |           |          |             |  |  |  |  |  |  |
|--|----------|-----------|-----------|----------|-------------|--|--|--|--|--|--|
| Sample items of each style   | Rational | Intuitive | Dependent | Avoidant | Spontaneous |  |  |  |  |  |  |
| 1. Plan decisions carefully R  | 0.725    | 0.115     | 0.068     | -0.132   | -0.029      |  |  |  |  |  |  |
| 6. Rely upon instinct I  | 0.141    | 0.695     | 0.035     | 0.002    | 0.092       |  |  |  |  |  |  |
| 11. Need assistance of others D  | -0.012   | 0.025     | 0.707     | 0.034    | 0.024       |  |  |  |  |  |  |
| 16. Avoid until pressure is on A   | -0.043   | 0.073     | 0.170     | 0.707    | 0.016       |  |  |  |  |  |  |
| 21. Generally snap decisions S   | -0.113   | 0.053     | -0.011    | 0.250    | 0.706       |  |  |  |  |  |  |
|  | 1        |           | <b>C</b>  |          |             |  |  |  |  |  |  |

Table 4.4: Example for convergent and discriminant validity of GDMS constructs

R= Rational, I= Intuitive, D= Dependent, A= Avoidant, S= Spontaneous

Table 4.5: Example for convergent and discriminant validity of NPS constructs

| Sample items of each need                          | nSec   | nAch  | nAff  | nPow   |
|--|--------|-------|-------|--------|
| 1. Always thinking about future nSec               | 0.432  | 0.270 | 0.101 | 0.152  |
| 2. Wish to be given more responsible work nAch     | -0.028 | 0.505 | 0.145 | -0.009 |
| 3. Feel friendship is important than anything nAff | 0.057  | 0.088 | 0.638 | -0.026 |
| 8. Would like to tell people what to do nPow       | 0.259  | 0.076 | 0.024 | 0.476  |

Thereby, both the convergent and discriminant validity of the constructs is established. However, the constructs may correlate to one another but the conceptual differences continue to exist between the styles (Scott and Bruce, 1995) as well as the needs (Gomes, 2011).

# 4.3.3 Criterion Related Validity

This validity is most often obtained when the scales are constructed by the researcher him/herself for specific research. Criterion-related validity is obtained through comparison of a constructed scale with a certain other theoretical relevant scale (the rationale is to assess how well studying scales predict some other relevant measure). Correlation coefficient facilitates the comparison to achieve criterion validity (Groth-Marnat, 1997). As the scales used in this study are standardized instruments which have not been developed specifically for the current research, therefore, they may have association with some other constructs for e.g. GDMS predicted ADMC (Adult decision making competence) and DOI (Decision Outcome inventory) in Parker *et al.* (2007). Therefore criterion validity of the instruments is not being tested here.

# 4.4 THE DESCRIPTIVE STATISTICS

### 4.4.1 Factor-wise and Total Scores

Table 4.6 reports the mean scores on all the constructs of the study. Herein, the sub constructs of TEAM have also been incorporated to reflect more precisely the attributes of TE. On GDMS

the average score is 86.22/125 (68.98%), on NP the average score is 14.25/21 (67.86%) and on TE the average is 76.20/112 (68.04%). Amongst DMS the highest to lowest the scores are of Rational (22.09/25 = 88.36%), Intuitive (18.76/25 = 75.04%), Dependent (17.73/25 = 70.92%), Spontaneous (15.89/25 = 63.56%) and Avoidant (11.75/25 = 47%).

| S.No.           | Total Minimum<br>Items Score |               | Maximum<br>Score | Mean<br>(N=541) | Standard<br>Deviation |
|-----------------|------------------------------|---------------|------------------|-----------------|-----------------------|
|                 |                              | Total for one | Total for one    |                 | ( <b>SD</b> )         |
|                 |                              | respondent    | respondent       |                 |                       |
| Rational DMS    | 5                            | 5             | 25               | 22.09           | 3.13                  |
| Intuitive DMS   | 5                            | 5             | 25               | 18.76           | 3.99                  |
| Dependent DMS   | 5                            | 5             | 25               | 17.73           | 4.16                  |
| Avoidant DMS    | 5                            | 5             | 25               | 11.75           | 4.82                  |
| Spontaneous DMS | 5                            | 5             | 25               | 15.89           | 4.03                  |
| GDMS            | 25                           | 25            | 125              | 86.22           | 11.62                 |
| nAch            | 4                            | 0             | 4                | 3.45            | 0.86                  |
| nAff            | 6                            | 0             | 6                | 3.62            | 1.65                  |
| nPow            | 5                            | 0             | 5                | 3.71            | 1.23                  |
| nSec            | 6                            | 0             | 6                | 3.46            | 1.57                  |
| NP              | 21                           | 0             | 21               | 14.25           | 3.51                  |
| Cohesion        | 4                            | 0             | 16               | 10.96           | 2.78                  |
| Confrontation   | 4                            | 0             | 16               | 10.46           | 2.80                  |
| Collaboration   | 4                            | 0             | 16               | 11.36           | 2.95                  |
| Task Clarity    | 4                            | 0             | 16               | 11.88           | 3.17                  |
| Autonomy        | 4                            | 0             | 16               | 10.10           | 2.87                  |
| Support         | 4                            | 0             | 16               | 10.57           | 3.11                  |
| Accountability  | 4                            | 0             | 16               | 10.89           | 3.02                  |
| T Functioning   | 12                           | 0             | 48               | 32.77           | 7.04                  |
| T Empowerment   | 16                           | 0             | 64               | 43.43           | 9.98                  |
| TE              | 28                           | 0             | 112              | 76.20           | 16.02                 |

Table 4.6: The descriptive statistics on the three scales (N=541)

Note: The scales have ranges as 1 to 5 (GDMS), 0 to 1 (NP) and 0 to 4 (TEAM)

On the constructs of NPS from highest to lowest, the scores are of nAch (3.45/4=86.25%), nPow (3.71/5=74.2%), nAff (3.62/6=60.33%) and nSec (3.46/6=57.66%). On TEAM, the scores on the construct of Team Functioning (32.77/48=68.27%) seem higher than Team Empowerment (43.43/64=67.86%). Specifically, the Collaboration is the highest (11.36/16=71%), then is Cohesion (10.96/16=68.5%) and the least is Confrontation (10.46/16=65.375%) on the construct of Team Functioning. Moreover, from highest to lowest on the construct of Team Empowerment are Task Clarity (11.88/16=74.25%), Accountability (10.89/16=68.06%), Support (10.57/16=66.06%) and Autonomy (10.10/16=63.13%). The most variation

on GDMS constructs is on Avoidant DMS (SD= 4.82) and least deviation is on Rational DMS (SD= 3.13). Likewise, the variation around the mean of the nAff is maximum (SD= 1.65). Among the constituents of TE constructs, the maximum varied scores are of Task Clarity (SD= 3.17). The GDMS as a whole has variation of 11.62 (SD) around the average of 86.22 (Mean). The NP has variation of 3.51 (SD) around 14.25 (Mean). Team Functioning varies 7.04 (SD) and Team Empowerment varies 9.98 (SD) around their respective means. TE scores vary 16.02 (SD) around the mean score of 76.20.

### 4.4.2 Item-wise scores

Table 4.7, 4.8 and 4.9 show scores on items/questions of GDMS, NPS & TEAM respectively.

| No. | Items                                | Styles      | 1   | 2   | 3   | 4   | 5   |
|-----|--------------------------------------|-------------|-----|-----|-----|-----|-----|
| 1   | Plan carefully                       | Rational    | 11  | 8   | 25  | 114 | 383 |
| 2   | Double-check for right facts         |             | 11  | 12  | 25  | 179 | 314 |
| 3   | Logical & systematic                 |             | 8   | 21  | 34  | 184 | 294 |
| 4   | Careful thought                      |             | 12  | 14  | 36  | 200 | 279 |
| 5   | Various options in terms of goal     |             | 9   | 12  | 39  | 174 | 307 |
| 6   | Rely on instincts (nature)           | Intuitive   | 26  | 55  | 99  | 228 | 133 |
| 7   | Tend to rely on intuition (insight)  |             | 37  | 61  | 95  | 242 | 106 |
| 8   | Which feels right                    |             | 29  | 49  | 89  | 178 | 196 |
| 9   | Important to feel right than reason  |             | 39  | 62  | 74  | 199 | 167 |
| 10  | Trust inner feelings and reactions   |             | 27  | 46  | 81  | 202 | 185 |
| 11  | Need assistance                      | Dependent   | 47  | 68  | 101 | 213 | 112 |
| 12  | Consult others                       |             | 69  | 113 | 86  | 156 | 117 |
| 13  | Easy with support of others          |             | 29  | 55  | 85  | 191 | 181 |
| 14  | Use advice of others                 |             | 29  | 46  | 75  | 248 | 143 |
| 15  | Steered by others in right direction |             | 50  | 98  | 104 | 186 | 103 |
| 16  | Avoid until pressure is on           | Avoidant    | 174 | 137 | 93  | 93  | 44  |
| 17  | Postpone whenever possible           |             | 218 | 128 | 63  | 91  | 41  |
| 18  | Procrastinate (adjourn) often        |             | 195 | 129 | 103 | 89  | 25  |
| 19  | At last minute generally             |             | 197 | 144 | 68  | 94  | 38  |
| 20  | Put off as thinking makes uneasy     |             | 176 | 127 | 106 | 98  | 34  |
| 21  | Snap (at one click) decisions        | Spontaneous | 84  | 127 | 137 | 152 | 41  |
| 22  | At the spur of the moment            |             | 81  | 124 | 123 | 166 | 47  |
| 23  | Quick decision                       |             | 35  | 86  | 100 | 213 | 107 |
| 24  | Impulsive decision                   |             | 91  | 128 | 125 | 145 | 52  |
| 25  | What seem natural at the moment      |             | 25  | 56  | 106 | 245 | 109 |

Table 4.7: Item-wise scores on GDMS (N=541)

Note: Scores Ranges 1 to 5

Table 4.7, the highest Rational style (88.36%) is composed of the top five items. Herein, most respondents (383/541= 70.79%) strongly agreed (scored 5) to plan carefully their decisions, followed by double checking for right facts (314/541 = 58.04%) and then considering various options in terms of goal (307/541 = 56.75%). The second highest Intuitive style (75.04%) has the most strongly agreed item - to decide which feel right (196/541= 36.23%) followed by trust feelings and reactions (185/541= 34.20%). However, on this style the highest rating is on somewhat agree (4) where most respondents tend to rely on their insight or intuition while deciding (242/541= 44.73%), followed by reliance on their instincts (228/541= 42.14%). Dependent style rated as the third highest (70.92%) has rating with most on somewhat agree about they use the advice of others while deciding (248/541 = 45.84%), followed by somewhat agree that they need assistance while deciding (213/541 = 39.37%), also most strongly agreed item is that it becomes easier with support of others to make important decisions (181/541= 33.46%). The Avoidant style being comparatively least (47%) got maximum strongly disagree (1) scores. Here, most respondents deny that they postpone a decision whenever possible (218/541 = 40.29%) and they generally decide at the last minute (197/541 = 36.41%). The most strongly agreed item on Avoidant style is that respondents avoid decisions until the pressure is on (44/541= 8.13%). The scores on Spontaneous style (63.56%) ranged most between somewhat disagree (2), neither agree nor disagree (3) and somewhat agree (4). Most respondents somewhat agree (245/541 = 45.29%) and strongly agree (109/541 = 20.15%) that they decide what seem natural at the moment. Also, many respondents somewhat agree (213/541 = 39.37%) and strongly agree (107/541 = 19.78%) that they make quick decisions.

| S No. | No. | Items  | Need | Disagree | Agree |
|-------|-----|--|------|----------|-------|
| 1     | 1   | Always thinking about future                       | nSec | 125      | 416   |
| 2     | 5   | Worried should not loose social prestige           | nSec | 164      | 377   |
| 3     | 6   | Financially secured can live peacefully            | nSec | 243      | 298   |
| 4     | 10  | Make friendship if feel secured                    | nSec | 193      | 348   |
| 5     | 11  | In tension of getting dismissed                    | nSec | 399      | 142   |
| 6     | 18  | Worried about to increase savings                  | nSec | 248      | 293   |
| 7     | 3   | Friendship is more important than anything else    | nAff | 251      | 296   |
| 8     | 4   | Become very much attached to friends               | nAff | 180      | 361   |
| 9     | 9   | Hate staying alone                                 | nAff | 247      | 294   |
| 10    | 12  | Keep in touch with doings and interest of friends  | nAff | 143      | 398   |
| 11    | 15  | Usually go out with friends                        | nAff | 194      | 347   |
| 12    | 17  | Make as many friends as possible and look for more | nAff | 274      | 267   |

Table 4.8: Item-wise scores on NPS (N=541)

| S No.   | No. | Items   | Need     | Disagree | Agree |
|---------|-----|---|----------|----------|-------|
| 13      | 2   | Wish to be given more responsible work                | nAch     | 47       | 494   |
| 14      | 7   | Wish always do better than others                     | nAch     | 103      | 438   |
| 15      | 19  | Feel only ambitions can bring mind into full activity | nAch     | 109      | 432   |
| 16      | 23  | Wish would always achieve success in work             | nAch     | 37       | 504   |
| 17      | 8   | Would like to tell people what to do                  | nPow     | 188      | 353   |
| 18      | 13  | Like to have disciples/ followers                     | nPow     | 127      | 414   |
| 19      | 14  | Influence others more than being influenced from      | nPow     | 186      | 355   |
| 20      | 21  | Find it easy to lead group and maintain discipline    | nPow     | 91       | 450   |
| 21      | 22  | Feel can lead better than others                      | nPow     | 104      | 437   |
| Mate. 1 |     | a 16 20 and 24 have been disconded due to their week  | fastan 1 | andima   |       |

Note: Item no. 16, 20 and 24 have been discarded due to their weak factor loading

Table 4.8, the score of nSec (57.66%) is mostly composed of the agreement (416/541 =76.89%) on item that the respondents are always thinking about their future, followed by the worry of losing social prestige (377/541 = 69.68%). The most disagreed (399/541 = 73.75%)item of nSec is to be in tension that they will be dismissed. The highest nAch (86.25%) of Indian executives is composed of agreement that they wish to always achieve success in their work (504/541= 93.16%), and also most have agreed that they wish to be given more responsible work (494/541 = 91.31%). The most disagreed item of nAch is that they think that only ambitions can bring one's mind into full activity (109/541 = 20.15%). The second highest scores on nPow (74.2%) is mostly formed of agreement that the respondents find it easy to lead group and maintain discipline (450/541 = 83.18%) and they feel that they can lead better than others (437/541= 80.77%). The most disagreement on nPow item is that they would like to tell people what to do (188/541= 34.75%) and they influence more than being influenced (186/541= 34.38%). The nAff scores (60.33%) are mostly based on agreement that respondents keep in touch with the interests and doings of friends (398/541=73.57%) and they become very much attached to their friends (361/541 = 66.73%). The most disagreed item on nAff is that the respondents make as many friends as possible and also look out for more (274/541 = 50.65%), and they feel that friendship is more important than anything else (251/541 = 46.40%). Table 4.9, the scores of Team Functioning (68.27%) has highest rating (4) on the item that members support each other when required (263/541 = 48.61%), followed by the item that they function as a strong team (254/541 = 46.95%), and then on the items that they voluntarily help each other (216/541 = 39.92%) and positively respond to the help requests (212/541 = 39.18%). The least highly rated item is that they don't feel that differences are expressed without hesitation (116/541 = 21.44%) and that there is no hesitation while taking decisions (128/541 = 23.66%)

and the group decisions are backed up (128/541=23.66%). The second highest score (3) is most on the item that they generate alternative solutions for their problems (218/541=40.30%), followed by the item that the task is further divided into small groups (213/541=39.37%). The third highest rating (2) is mostly again on the item that they feel that there is no hesitation while taking decisions (122/541=22.55%), followed by on the item that they feel that individual member concerns and views are not ignored (116/541=21.44%). The second lowest rating (1) is again most on the item that they feel that there is no hesitation while taking decisions (104/541=19.22%), while the least rating (0) is mostly on the item that group decisions are backed up by individuals (86/541=15.90%).

| S No. | No. | m-wise scores on TEAM (N=541)<br>Items     | Dim. | 0  | 1   | 2   | 3   | 4   |
|-------|-----|--|------|----|-----|-----|-----|-----|
| 1     | 2   | Views/concerns not ignored                 | TF   | 24 | 89  | 116 | 159 | 153 |
| 2     | 4   | Problems discussion not avoided            |      | 35 | 81  | 92  | 133 | 200 |
| 3     | 6   | Voluntarily help each other                |      | 34 | 64  | 85  | 142 | 216 |
| 4     | 9   | Support each other when required           |      | 18 | 29  | 54  | 177 | 263 |
| 5     | 11  | Alternative solutions                      |      | 15 | 45  | 87  | 218 | 176 |
| 6     | 13  | Division of task                           |      | 31 | 43  | 99  | 213 | 155 |
| 7     | 16  | Function as strong                         |      | 38 | 55  | 79  | 115 | 254 |
| 8     | 18  | Not hesitant to decide                     |      | 37 | 104 | 122 | 150 | 128 |
| 9     | 20  | No hesitation in help request              |      | 38 | 73  | 84  | 152 | 194 |
| 10    | 23  | Group decisions backed up                  |      | 86 | 87  | 96  | 144 | 128 |
| 11    | 25  | Differences are expressed                  |      | 55 | 80  | 107 | 183 | 116 |
| 12    | 27  | Help requests responded positively         |      | 15 | 37  | 70  | 207 | 212 |
| 13    | 1   | Goals are well defined                     | TEmp | 18 | 57  | 78  | 185 | 203 |
| 14    | 3   | Free to decide working ways                | -    | 30 | 58  | 108 | 211 | 134 |
| 15    | 5   | Adequate resources to carry out functions  |      | 27 | 62  | 102 | 189 | 161 |
| 16    | 7   | High sense of responsibility               |      | 17 | 50  | 85  | 197 | 192 |
| 17    | 8   | No confusion about main task               |      | 27 | 68  | 90  | 134 | 222 |
| 18    | 10  | Perform given tasks & prioritize also      |      | 75 | 123 | 138 | 116 | 89  |
| 19    | 12  | Adequate support for task performance      |      | 34 | 78  | 109 | 144 | 176 |
| 20    | 14  | Assess extent of goal achievements         |      | 36 | 78  | 114 | 118 | 195 |
| 21    | 15  | Clarity about roles                        |      | 14 | 33  | 53  | 173 | 268 |
| 22    | 17  | Enough freedom in own areas                |      | 27 | 40  | 92  | 200 | 182 |
| 23    | 19  | Enough competent persons present           |      | 21 | 57  | 87  | 199 | 177 |
| 24    | 21  | Accountability assessment ways present     |      | 15 | 60  | 99  | 225 | 142 |
| 25    | 22  | Clarity about how to move towards goal     |      | 28 | 63  | 75  | 136 | 239 |
| 26    | 24  | Autonomy in vital aspects of working       |      | 30 | 86  | 129 | 163 | 133 |
| 27    | 26  | No lack of human & financial resources     |      | 58 | 103 | 100 | 150 | 130 |
| 28    | 28  | Internal mechanisms of progress assessment |      | 50 | 68  | 119 | 151 | 153 |

Table 4.9: Item-wise scores on TEAM (N=541)

Note1: TF= Team Functioning, TEmp= Team Empowerment, Note2: Score Ranges 0 to 4 Note3: The scores have been reversed as suggested by Pareek (2002b) and language has been framed accordingly Team Empowerment scores (67.86%) have the highest rating (4) by most respondents on the item that there is clarity about roles (268/541 = 49.54%), followed by on the item that they clearly know how to proceed towards goal (239/541 = 44.18%), then on the item that there is no confusion about the main tasks (222/541 = 41.03%), and the goals are well defined (203/541 =37.52%). All these items are of task clarity that ultimately led to the highest scores on task clarity (74.25%). The second highest rating (3) here is on the item that there are appropriate ways of assessing accountability (225/541 = 41.59%), followed by the item that they are free to decide their ways of working (211/541 = 39%), they have enough freedom in their own areas (200/541= 36.97%) and the needed competent persons are present (199/541= 36.78%). The third highest rating (2) is most on item that they carry out given tasks and also decide their own priorities (138/541 = 25.5%) and the second last (1) rating is also most (123/541 = 22.74%) on this item. This particular item also has few highest (4) rating (89/541 = 16.45%) and very less (0) rating (75/541= 13.86%). As per the Descriptives: the Rational DMS is major; Avoidant DMS is minor, Spontaneous DMS is however considerable, Intuitive DMS is second highest and Dependent DMS is third highest. Thus, upto certain extent it matches with the pattern of styles as hypothesized earlier (Partial support for H1: Indian executives have Rational DMS as their major DMS, Intuitive DMS and Dependent DMS as their back up DMS, and Avoidant DMS as well as Spontaneous DMS are least in their approaches). Likewise, in the pattern of needs, the nAch is the highest and nPow is not equivalent but considerably higher. The nAff is considerable as well, but not as hypothesized (as high as the nAch and nPow). The nSec came out be least out of the four motives but it's quite substantial. Here the Partial support for H4 is obtained (H4: Indian executives have highest nAch, and comparatively high nPow and nAff, but they possess lower nSec). The Team Effectiveness, team empowerment as well as team functioning scores appear considerable and towards the higher side, as hypothesized. Hence the Support for H7a (Indian executives have considerable (above 60%) levels of team functioning, H7b (Indian executives have considerable (above 60%) levels of team empowerment) and H7c (Indian executives have considerable (above 60%) levels of team effectiveness) is obtained.

#### **4.5 CORRELATION ANALYSIS**

Correlation analysis using Pearson product moment correlation coefficient is being used here to identify the relationship amongst the constructs. The rationale is to find the degree of association between variables (Levin and Rubin, 2008).

|    | Tabl | e 4.10: Pe | earson C | orrelation | on Coet | ficients | amongs  | t variable | es      |         |                    |         |         |         |        |         |        |
|----|------|------------|----------|------------|---------|----------|---------|------------|---------|---------|--------------------|---------|---------|---------|--------|---------|--------|
|    |      | 1          | 2        | 3          | 4       | 5        | 6       | 7          | 8       | 9       | 10                 | 11      | 12      | 13      | 14     | 15      | 16     |
| 1  | Exp  | 1          |          |            |         |          |         |            |         |         |                    |         |         |         |        |         |        |
| 2  | Gen  | .244**     | 1        |            |         |          |         |            |         |         |                    |         |         |         |        |         |        |
| 3  | Edu  | 292**      | 177***   | 1          |         |          |         |            |         |         |                    |         |         |         |        |         |        |
| 4  | Ind  | .094       | .177     | .000       | 1       |          |         |            |         |         |                    |         |         |         |        |         |        |
| 5  | Sec  | 300***     | 123***   | .182**     | .110*   | 1        |         |            |         |         |                    |         |         |         |        |         |        |
| 6  | Rat  | .031       | 036      | .106*      | .024    | .102*    | 1       |            |         |         |                    |         |         |         |        |         |        |
| 7  | Int  | 034        | 076      | 008        | 074     | .060     | .216*** | 1          |         |         |                    |         |         |         |        |         |        |
| 8  | Dep  | 199***     | 127***   | .067       | 054     | .155***  | .246*** | .148**     | 1       |         |                    |         |         |         |        |         |        |
| 9  | Avoi | 109***     | .031     | 011        | .017    | .078     | 156***  | .161**     | .217*** | 1       |                    |         |         |         |        |         |        |
| 10 | Spon | 043        | .067     | .014       | 025     | .076     | .019    | .342***    | .073    | .300*** | 1                  |         |         |         |        |         |        |
| 11 | nAch | 013        | .070     | 001        | 012     | .009     | .143**  | .052       | .082    | .057    | .127**             | 1       |         |         |        |         |        |
| 12 | nAff | 045        | .060     | 008        | .008    | 013      | 005     | .127***    | .112*   | .026    | .110*              | .223*** | 1       |         |        |         |        |
| 13 | nPow | 041        | .041     | .057       | .009    | .053     | .144**  | .110*      | 028     | .023    | .169**             | .397*** | .196*** | 1       |        |         |        |
| 14 | nSec | 114***     | 054      | .011       | 053     | .084     | 072     | .105***    | .181*** | .246**  | .178 <sup>**</sup> | .267*** | .272*** | .242*** | 1      |         |        |
| 15 | TF   | .053       | 016      | 005        | 108*    | .052     | .230*** | .020       | 011     | 321**   | 083                | .115*** | .086*   | .067    | 137*** | 1       |        |
| 16 | TEmp | .101*      | 016      | .016       | 090*    | .074     | .320*** | .029       | .012    | 346**   | 111***             | .085*   | .063    | .042    | 180*** | .765*** | 1      |
| 17 | TE   | .086*      | 017      | .008       | 103*    | .069     | .300*** | .027       | .003    | 356***  | 106*               | .104*   | .077    | .056    | 172*** | .916*** | .959** |

\*p<0.01, \*p<0.05, Exp= Experience, Gen= Gender, Edu= Education, Ind= Industry, Sec= Sector, Rat= Rational, Int= Intuitive, Dep= Dependent, Avoi= Avoidant, Spon= Spontaneous, TF= Team Functioning, TEmp= Team Empowerment, TE= Team Effectiveness

Table 4.10 reports the results of Correlation Analysis; herein the attributes like experience, gender, education, industry and sector have also been incorporated.

The results indicate that there is a positive significant correlation of experience with gender (where female=0, male=1, p<0.01), Team Empowerment and TE (p<0.05). Experience has negative significant correlation (p<0.01) with education (where other graduates=0, engineering=1, other post graduation=2 and management=3), sector (where public=0, private=1), Dependent DMS, Avoidant DMS and nSec. It means that males have higher experience levels, higher empowerment and higher TE. Those with management education and other post graduations have lesser experience than those who are engineers and other graduates. The public sector has a higher level of experience than the private sector. Further, the results indicate that from junior to senior the Dependent and Avoidant style gets reduced and the nSec also reduces. Gender has negative significant correlation (p<0.01) with education, sector and Dependent DMS. It attributes that males have higher levels of education, public sector has less females and males have less Dependent style as compared to females. Education has positive significant correlation with sector (p<0.01) and Rational DMS (p<0.05). It means that the private sector has higher levels of education and also that from other graduates to management education the rational style rises. Industry (where PME=0, IT-ITES=1, Telecom=2, Manufacturing=3, Service=4) has a positive significant correlation (p<0.05) with the sector. Also, the Industry has negative significant correlation (p<0.05) with Team Functioning, Team Empowerment and TE. It reflects that only a few firms from the private sector are from PME (Power Mining and Exploration), alternatively most of the PME firms are from the public sector. Further, the TE and its constructs are lower in PME and IT-ITES as compared to the other industries. The sector has positive significant correlation with Rational DMS (p<0.05) and Dependent DMS (p<0.01). It symbolizes that private sector has higher Rational and Dependent styles. The specific variation in the constructs across the attributes of experience, gender, education, industry and the sector will be explored in the next section.

Rational DMS has positive significant correlation (p<0.01) with Intuitive DMS, Dependent DMS, nAch, nPow, Team Functioning, Team Empowerment and TE. There is a negative significant correlation (p<0.01) between Rational and Avoidant DMS. The results reflect that intuitiveness and dependence increases with increasing rationality, while the avoidance

decreases. Moreover, with rising nAch and nPow the rationality rises. Rationality and TE also increase hand in hand. Intuitive DMS has positive significant correlation (p<0.01) with all rest styles, nAff and nSec. Also, it has a positive significant association with nPow (p<0.05). Results point that Intuitive style increases with rising levels of other styles. Intuitive style rises with rising nAff, nSec and nPow. Dependent DMS correlates positively (p<0.01) with Avoidant DMS and nSec, and also with nAff (p<0.05). This attributes that Dependent style and nSec grow simultaneously, the nAff grows with Dependent style, and the dependence and avoidance also rise together and vice versa. Avoidant style significantly (p<0.01) positively correlates with Spontaneous DMS and nSec, while it negatively correlates with TE and its constructs. It symbolizes that with rising avoidance, the TE, Team empowerment and functioning get reduced. However, nSec and Avoidance go hand in hand. Also, the avoidance leads to rising spontaneous tendencies. Spontaneous style relates positively (p<0.01) to nAch, nPow, nSec and nAff (p<0.05). However, it negatively relates to Team Empowerment (p<0.01) and TE (p<0.05). It means that as the spontaneity rises, the TE and especially the empowerment reduce. The spontaneity increases with increasing needs of achievement, power and security. The spontaneity also tends to rise with rising nAff. The nAch has a positive significant correlation with all other needs (p<0.01), and it relates positively with Team Functioning (p<0.01), Team Empowerment and TE (p<0.05). The nAff has positive association with all other needs (p<0.01) and Team Functioning (p<0.05). The nPow and nSec relate positively with rest of the needs (p<0.01). But, the nSec has negative significant association with TE and its constructs (p<0.01). It means that with rising nSec the functioning as well as empowerment gets reduced and vice versa. Hence high nSec relates with lower TE. Team Functioning and empowerment are also correlated (p<0.01). The correlation among the styles provides support for H2 (There is a mutual correlation among the constructs of GDMS), the correlation between the needs have fetched the support for H5 (The secondary motives/needs are mutually correlated but conceptually different) and the correlation between team functioning and empowerment obtained support for H8 (There is a mutual correlation between team functioning and team empowerment).

#### 4.6 TESTS OF VARIATIONS AND DIFFERENCES

The correlation of grouping attributes (for e.g. experience, Industry etc.) with the constructs of GDMS, NP and TE has already been discussed in the earlier section. But to identify more 106

significantly that where actually the differences exist, the tests of variation and differences are being performed here. ANOVA (one-way) is being used to identify differences across more than 2 groups (for e.g. Industries, education and experience) and Independent sample t-test is employed to obtain differences between 2 groups (for e.g. gender and sector). Table 4.11 shows the variation/differences results.

| Construct   | Variation  | F/t                    | Subgroup Codes (i-j)          | MD                 |
|-------------|------------|------------------------|-------------------------------|--------------------|
|             | Across     |                        | and names                     | ( <b>i-j</b> )     |
| Dependent   | Industry   | $F=5.690^{**}$         | 0-1 (PME & IT-ITES)           | -2.667**           |
|             |            |                        | 1-4 (IT-ITES & Service)       | $2.222^{**}$       |
|             |            |                        | 0-3 (PME & Manufacturing)     | $-1.976^{*}$       |
|             | Experience | $F=11.078^{**}$        | 0-1 (Junior & Middle)         | 1.185**            |
|             |            |                        | 0-2 (Junior & Senior)         | 2.274**            |
|             | Sector     | $t = -3.651^{**}$      | 0-1 (Public & Private)        | -                  |
|             | Gender     | $t=2.967^{**}$         | 0-1 (Female & Male)           | -                  |
| Rational    | Education  | $F=2.887^*$            | 0-3 (Other Grad. & Management | -1.322*            |
|             |            |                        | Ed)                           |                    |
|             | Sector     | $t= -2.369^*$          | 0-1 (Public & Private)        | -                  |
| Spontaneous | Industry   | $F=2.479^*$            | 3-4 (Manufacturing & Service) | $1.568^{*}$        |
|             | Sector     | $t= -1.763^{\dagger}$  | 0-1 (Public & Private)        | -                  |
| Intuitive   | Gender     | t= 1.767 <sup>†</sup>  | 0-1 (Female & Male)           | -                  |
| Avoidant    | Experience | $F=4.633^{**}$         | 0-1 (Junior-Middle)           | $1.814^{**}$       |
|             |            |                        | 1-2 (Middle and Senior)       | $1.655^{*}$        |
|             | Sector     | $t= -1.816^{\dagger}$  | 0-1 (Public & Private)        | -                  |
| GDMS        | Industry   | $F=3.157^*$            | 1-4 (IT-ITES & Service)       | $4.873^{*}$        |
|             | Experience | $F=5.012^{**}$         | 0-2 (Junior & Senior)         | $4.487^{**}$       |
|             | Sector     | $t = -3.819^{**}$      | 0-1 (Public & Private)        | -                  |
| nAch        | Industry   | $F=3.350^{**}$         | 3-4 (Manufacturing & Service) | 0.359**            |
| nSec        | Experience | $F=4.145^{**}$         | 0-2 (Junior & Senior)         | 0.571*             |
|             | -          |                        | 1-2 (Middle & Senior)         | $0.448^\dagger$    |
| TF          | Industry   | $F=2.583^*$            | 0-4 (PME & Service)           | 3.678 <sup>†</sup> |
| TEmp        | Experience | $F=2.901^{\dagger}$    | 0-2 (Junior & Senior)         | -3.029*            |
|             | Sector     | $t = -1.728^{\dagger}$ | 0-1 (Public & Private)        | -                  |
| TE          | Industry   | $F=2.251^{\dagger}$    | 0-4 (PME & Service)           | 8.315 <sup>†</sup> |

 Table 4.11: Significant differences across subgroups

\*\*p<0.01, \*p<0.05, \*p<0.10, MD= mean difference

Note. Only significant results have been shown, no other significant differences were found

Dependent DMS has significant variation across Industries. IT-ITES has higher Dependent style than PME (MD= -2.667, p<0.01) and Service industries (MD= 2.222, p<0.01). Manufacturing industry has higher Dependent style than PME (MD= -1.976, p<0.05). Also, the Dependent DMS is higher in the Junior-level as compared to Senior-level (MD=2.274,

p<0.01) and Middle-level executives (MD= 1.185, p<0.01). Furthermore, Private sector has a higher Dependent DMS as compared to Public sector (t= -3.651, p<0.01), and likewise Females have higher Dependent style as compared to Males (t= 2.967, p<0.01). Respondents with Management education have higher Rational DMS than those who are Other Graduates (MD= -1.322, p<0.05). Also, Private sector has higher Rational style than Public sector (MD= -2.369, p<0.05). Spontaneous DMS is higher in Manufacturing industry than Service (MD= 1.568, p<0.05), and in Private sector than Public (t= -1.767, p<0.10).

Intuitive DMS is higher in Females as compared to Males (t= 1.767, p<0.10). The scores on GDMS as a whole is higher in IT-ITES than Service (MD= 4.873, p<0.05), in Junior-level than Senior-level (MD= 4.487, p<0.01), and in Private sector than Public (t= -3.819, p<0.01). Avoidant DMS is higher in Junior-level than Middle-level (MD= 1.814, p<0.01), in Middle-level than Senior-level (MD= 1.655, p<0.05), and in Private sector than Public (t= -1.816, p<0.10). The nAch is higher in Manufacturing industry as compared to Service (MD= 0.359, p<0.01). The nSec is higher in Junior-level than Senior-level (MD= 0.571, p<0.05) and in Middle-level than Senior-level (MD= 3.678, p<0.10). Team Functioning is higher in PME than Service Industry (MD= -3.029, p<0.05) and in Private than the Public sector (t= -1.728, p<0.10). Team Effectiveness is higher in PME than Service industry (MD= 8.315, p<0.10).

ANOVA and Independent sample t tests have shown that Dependent, Avoidant and GDMS vary across experience (Partial Support for *H3a*: Decision making styles of Indian executives vary across levels of experience); Dependent and Intuitive styles vary across gender (Partial Support for *H3b*: Decision making styles of Indian executives vary across males and females.); Rational style varies across educational qualification (Partial Support for *H3c*: Decision making styles of Indian executives vary across educational qualifications); Dependent, Spontaneous and GDMS vary across industries (Partial Support for *H3d*: Decision making styles of Indian executives vary across industries); and All except Intuitive style vary across sector and also GDMS total has variation across sector (Partial Support for *H3e*: Decision making styles of Indian executives vary across the public and private sector). The nSec varies across experience (Partial Support for *H6a*: Secondary motives or needs of Indian executives vary across levels of experience) and nAch has variation across industries (Partial Support for *H6d*: Secondary

motives or needs of Indian executives vary across industries). Team Effectiveness has variation across industries (Support for *H9d*: Team Effectiveness of Indian executives varies across industries); Team Functioning also varies across industries (Support for *H9i*: Team Functioning of Indian executives varies across industries); and Team Empowerment varies across experience (Support for *H9k*: Team Empowerment of Indian executives varies across levels of experience) and across sector (Support for *H9o*: Team Empowerment of Indian executives varies varies across the public and private sector).

#### 4.7 TESTS OF PREDICTIONS AND CONTRIBUTIONS

This section deals with the identification of predictive association of the independent variables with the dependent variable. Regression analysis is being used to examine how much change in the independent variable is associated with how much change in the dependent variable (Levin and Rubin, 2008). In other words, regression will ensure how much each construct predicts TE of executives. Since there are more than one construct, hence multiple regression analysis is being conducted on the data. The correlation analysis has already shown the relationship among all the measures for e.g. Rational DMS with TE (+ve), Avoidant DMS with TE (-ve) Spontaneous DMS with Team Empowerment (-ve) and TE (-ve), nAch with TE (+ve), nSec (ve) with TE, and nAff with Team Functioning (+ve). Moreover, the needs have been observed mutually correlated and so are the styles. Only from correlation, the strength of the association of independent variables with TE cannot be assessed. In other words, merely from correlation it cannot be interpreted directly as an index of the extent to which scores on TE are influenced by other variables (GDMS and NP). Correlation analysis has shown significant relationships between styles and needs, hence the same will be checked through Collinearity diagnostics (VIF: Variance Inflation Factor) during the predictive analysis. Also, it is important to state that the tests of variation reported significant results with respect to the variation in styles, needs and TE across industry, gender, education, sector and experience, and hence these must be controlled in the regression analysis. In regression, the significant standardized ( $\beta$ ) beta coefficient value will address the hypotheses pertaining to prediction. For e.g. a  $\beta$  value of 0.32 will indicate that a change of one standard deviation in the predictor variable will result in 0.32 standard deviation change in the predicted (criterion) variable. R<sup>2</sup> (Coefficient of determination) will provide the contribution of independent (predictor) variables towards the dependent (criterion) variable. F value significance will assure the significance of the proposed 109

model. In the analysis, the grouping attributes will be entered in the first block and the independent variable constructs will be entered in the next block (SPSS v17.0), so as to notice the contribution by the study variables over and above the control variables. Moreover, the hierarchy of entering the study variables also helps in increments caused by adding other successive variables. Such block wise entry helps in understanding the increments in  $\mathbb{R}^2$  and change in F-statistics caused by each successive block. Though the final  $\mathbb{R}^2$  value remains the same, whether entered in a single block or entered successively.

# 4.7.1 Aggregate Sample Analysis

Table 4.12 shows the prediction of TE, through control (Model 1), control and GDMS (Model 2), control and NP (Model 3), and through control, GDMS and NP (Model 4). It reflects that Industry ( $\beta$ = -0.128, p<0.01), Sector ( $\beta$ = 0.120, p<0.01) and Experience ( $\beta$ = 0.144, p<0.01) as control variables (CV) have significant impact on TE. Rest CVs also have beta coefficients, but not significant. The variance in TE through CV is 3.4% (R<sup>2</sup>=0.034, p<0.01).

|             | mough cont   | tor variables,   | ODIVID alla  |  |  |
|-------------|--|--|--|--|--|
|             |  | Control  | Control  | Control  |  |
|             |  | &  | &  | GDMS   |  |
|             |  | GDMS   | NP   | & NP   |  |
|             | Model 1  | Model 2  | Model 3  | Model 4  | VIF  |
| Industry    | -0.128**   | -0.126**   | -0.137**   | -0.131**   | 1.075  |
| Sector      | $0.120^{**}$   | 0.113**  | 0.133**  | $0.123^{**}$   | 1.172  |
| Gender      | -0.010   | 0.020  | -0.039   | -0.002   | 1.156  |
| Education   | 0.026  | -0.014   | 0.014  | -0.016   | 1.140  |
| Experience  | $0.144^{**}$   | $0.082^{\dagger}$  | 0.131**  | $0.084^{*}$  | 1.281  |
| Rational    | -  | $0.236^{**}$   | -  | $0.206^{**}$   | 1.295  |
| Intuitive   | -  | 0.025  | -  | 0.020  | 1.246  |
| Dependent   | -  | 0.007  | -  | 0.016  | 1.264  |
| Avoidant    | -  | -0.313**   | -  | -0.286**   | 1.274  |
| Spontaneous | -  | -0.035   | -  | -0.043   | 1.265  |
| nSec        | -  | -  | -0.256**   | -0.153**   | 1.271  |
| nAff        | -  | -  | $0.117^{**}$   | $0.106^{**}$   | 1.156  |
| nPow        | -  | -  | $0.085^{\dagger}$                                      | 0.043  | 1.229  |
| nAch        | -  | -  | $0.117^{**}$   | $0.094^{*}$  | 1.254  |
|             | 3.796***   | 14.451***  | 7.254**  | 12.328**   |  |
|             | -  | $24.280^{**}$  | $11.214^{**}$  | $16.517^{**}$  |  |
|             | $0.034^{**}$   | $0.214^{**}$   | $0.109^{**}$   | $0.247^{**}$   |  |
|             | $0.025^{**}$   | $0.199^{**}$   | $0.094^{**}$   | $0.227^{**}$   |  |
|             | -  | $0.180^{**}$   | $0.075^{**}$   | 0.213***   |  |
|             | Industry<br>Sector<br>Gender<br>Education<br>Experience<br>Rational<br>Intuitive<br>Dependent<br>Avoidant<br>Spontaneous<br>nSec<br>nAff<br>nPow | Model 1Industry-0.128**Sector0.120**Gender-0.010Education0.026Experience0.144**Rational-Intuitive-Dependent-Avoidant-Spontaneous-nSec-nAff-nPow- | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ |

Table 4.12: Prediction of TE through Control variables, GDMS and NP

Note: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p < 0.01; <sup>\*</sup>p < 0.05; <sup>†</sup>p < 0.10, Dependent Variable is Team Effectiveness,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F.

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After controlling for CV, the Rational DMS positively and significantly predicts TE ( $\beta$ = 0.236, p<0.01), and also the Avoidant DMS predicts TE significantly but negatively ( $\beta$ = -0.313, p<0.01). Rest styles have no significant prediction towards TE. The variance explained by CV and the GDMS in TE is 21.4% (R<sup>2</sup>= 0.214, p<0.01). However, the unique contribution of the styles towards TE is 18.0% ( $\Delta$ R<sup>2</sup> = 0.018, p<0.01). Likewise after controlling effects of CV, all the needs have significant predictive association with TE: nSec ( $\beta$ = -0.256, p<0.01), nAff ( $\beta$ = 0.117, p<0.01), nPow ( $\beta$ = 0.085, p<0.10) and nAch ( $\beta$ = 0.117, p<0.01). The variance explained by CV and NP in TE is 10.9% (R<sup>2</sup>= 0.109, p<0.01) and that of NP over and above CV in TE is 7.5% ( $\Delta$ R<sup>2</sup> = 0.075, p<0.01). Further, in the model with both GDMS and NP, after controlling for CV, the coefficients of Rational ( $\beta$ = 0.206, p<0.01) and Avoidant ( $\beta$ = -0.286, p<0.01) DMS have decreased but still remain significant, and that of all the needs except nPow ( $\beta$ = 0.043, p>0.05) are also significant, but have decreased. The CV, GDMS and NP all together account for 24.7% variance in TE (R<sup>2</sup>= 0.247, p<0.01). Though the unique variance by GDMS and NP in TE over and above CV is 21.3% ( $\Delta$ R<sup>2</sup>= 0.213, p<0.01).

The results so far suggest that nSec and Avoidant DMS negatively predict TE, while nAff, nAch, nPow and Rational DMS positively predict TE. Rest of the styles have no significant predictions of TE; the beta coefficient of nPow is significant but at 0.10 significance level. The VIF (variance inflation factor) values are much less than 10 (Table 4.12), hence there is no problem of Multicollinearity (Kutner, 2004). Since, certain CV (Industry, Sector and Experience) have significant impact on TE, it seems interesting to analyze the proposed relationships Industry-wise, Sector-wise and Experience-wise. Such an attempt would help to better understand the contribution of NP and GDMS towards TE.

## 4.7.2 Industry-wise Analysis

Table 4.13 (A) and 4.13 (B) present the results of Industry-wise analysis. In IT-ITES industry, the prediction of TE is significant through Rational DMS ( $\beta$ = 0.239, p<0.01), Dependent DMS ( $\beta$ = 0.121, p<0.10) and Avoidant DMS ( $\beta$ = -0.274, p<0.01). Also, the prediction through nSec is significant ( $\beta$ = -0.226, p<0.01). While GDMS and NP together significantly predict TE through Rational DMS ( $\beta$ = 0.221, p<0.01), Dependent DMS ( $\beta$ = 0.143, p<0.01), Avoidant DMS ( $\beta$ = -0.263, p<0.01), nSec ( $\beta$ = -0.215, p<0.01) and nAch ( $\beta$ = 0.156, p<0.10). The

coefficient of nAch has increased to become significant and that of Dependent style has also grown up, while all others have diminished. Variance accounted by GDMS in TE is 19.1% ( $R^2$ = 0.191, p<0.01), by the NP in TE is 5.3% ( $R^2$ = 0.053, p<0.01) and by both (GDMS and NP) in TE is 24% ( $R^2$ = 0.240, p<0.05). The unique variance by NP over and above GDMS is 4.9% ( $\Delta R^2$ = 0.049, p<0.05).

|                         | · •         | IT-ITES I         | ndustry (N        | =176)             | Manufa       | cturing (N=  | 231)              |
|-------------------------|-------------|-------------------|-------------------|-------------------|--------------|--------------|-------------------|
|                         |             | GDMS              | NP                | GDMS              | GDMS         | NP           | GDMS              |
|                         |             |                   |                   | &                 |              |              | &                 |
|                         |             |                   |                   | NP                |              |              | NP                |
| Antecedents             |             | Model 1           | Model 2           | Model 3           | Model 1      | Model 2      | Model 3           |
| GDMS                    | Rational    | 0.239**           | -                 | 0.221**           | $0.250^{**}$ | -            | 0.199**           |
|                         | Intuitive   | 0.025             | -                 | 0.037             | 0.050        | -            | 0.045             |
|                         | Dependent   | $0.121^{\dagger}$ | -                 | $0.143^{\dagger}$ | -0.066       | -            | -0.069            |
|                         | Avoidant    | -0.274**          | -                 | -0.263**          | -0.316***    | -            | -0.307***         |
|                         | Spontaneous | -0.081            | -                 | -0.110            | -0.037       | -            | -0.020            |
| NP                      | nSec        | -                 | -0.226**          | -0.215***         | -            | -0.249**     | -0.099            |
|                         | nAff        | -                 | 0.081             | 0.080             | -            | 0.088        | $0.102^{\dagger}$ |
|                         | nPow        | -                 | 0.075             | 0.008             | -            | 0.041        | 0.027             |
|                         | nAch        | -                 | 0.116             | $0.156^{\dagger}$ | -            | $0.212^{**}$ | 0.165***          |
| F                       |             | 8.016***          | $2.404^{\dagger}$ | 5.810*            | 11.335**     | 6.837**      | $8.175^{**}$      |
| $\Delta F$              |             | -                 | -                 | $2.660^{*}$       | -            | -            | 3.576***          |
| $\mathbb{R}^2$          |             | 0.191**           | $0.053^{\dagger}$ | $0.240^{*}$       | 0.201**      | .108**       | $0.250^{**}$      |
| Adjusted R <sup>2</sup> |             | $0.167^{**}$      | $0.031^{\dagger}$ | 0.19.8*           | 0.183**      | $.092^{**}$  | 0.219***          |
| $\Delta R^2$            |             | -                 | -                 | 0.049*            | -            | -            | 0.049**           |

Table 4.13 (A): Industry-wise analysis of GDMS and NP prediction towards TE

Note: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p<0.01; <sup>\*</sup>p<0.05; <sup>†</sup>p<0.10, Dependent Variable is Team Effectiveness,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F.

In Manufacturing Industry, the prediction of TE is significant through Rational DMS ( $\beta$ = 0.250, p<0.01) and Avoidant DMS ( $\beta$ = -0.316, p<0.01). Among the needs, the prediction through nSec ( $\beta$ = -0.249, p<0.01) and nAch ( $\beta$ = 0.212, p<0.01) appears to be significant. Moreover, GDMS and NP together have significant predictive association with TE through Rational DMS ( $\beta$ = 0.199, p<0.01), Avoidant DMS ( $\beta$ = -0.307, p<0.01), nAff ( $\beta$ = 0.102, p<0.10) and nAch ( $\beta$ = 0.165, p<0.01). Here, the coefficient of nAff increased and became significant, and the coefficient of nSec decreased and became insignificant, whereas rest of the coefficients have diminished but remained significant. The variance accounted by GDMS in TE is 20.1% (R<sup>2</sup>= 0.201, p<0.01), by the NP in TE is 10.8% (R<sup>2</sup>= 0.108, p<0.01) and by both (GDMS and NP) in TE is 25% (R<sup>2</sup>= 0.250, p<0.01). The unique variance by NP over and above GDMS is 4.9% ( $\Delta$ R<sup>2</sup> = 0.049, p<0.05).

In PME (Power, Mining and Exploration), Table 4.13 (B), the prediction of TE is significant through Rational DMS ( $\beta$ = 0.518, p<0.01) and Avoidant DMS ( $\beta$ = -0.018, p<0.05). NP through nPow ( $\beta$ =0.289, p<0.10) and nAch ( $\beta$ = -0.283, p<0.10) has a significant prediction of TE. Together GDMS and NP still predict through Rational DMS ( $\beta$ = 0.436, p<0.05) and Avoidant DMS ( $\beta$ = -0.013, p<0.05) only (not through any of the needs). The coefficients of nPow and nAch diminished as well as became insignificant. Since the sample size is small (PME= 39) and also the gap between adjusted R<sup>2</sup> and R<sup>2</sup> is wide, here the variance accounted is being assessed through adjusted R<sup>2</sup> (it takes into account the number of variables in the model and the number of observations or participants). The GDMS accounts for 20.8% variance in TE (adjusted R<sup>2</sup>= 0.208, p<0.05), NP accounts for 11.6% variance in TE (adjusted R<sup>2</sup>= 0.116, p<0.10) and variance by both (GDMS and NP) in TE is 28.9% (R<sup>2</sup>= 0.289, p<0.05). The unique variance by NP over and above GDMS is 14.5% ( $\Delta$ R<sup>2</sup>= 0.145, not significant).

|                         |             | PME         | l Industry (N      | N=39)       | Servic            | e Industry ( | N=65)   |
|-------------------------|-------------|-------------|--------------------|-------------|-------------------|--------------|---------|
|                         |             | GDMS        | NP                 | GDMS        | GDMS              | NP           | GDMS    |
|                         |             |             |                    | &           |                   |              | &       |
|                         |             |             |                    | NP          |                   |              | NP      |
| Antecedents             |             | Model 1     | Model 2            | Model 3     | Model 1           | Model 2      | Model 3 |
| GDMS                    | Rational    | 0.518**     | -                  | 0.436*      | 0.163             | -            | 0.172   |
|                         | Intuitive   | -0.072      | -                  | 0.000       | 0.095             | -            | 0.105   |
|                         | Dependent   | -0.347      | -                  | -0.356      | -0.010            | -            | 0.069   |
|                         | Avoidant    | -0.018*     | -                  | -0.013*     | -0.363*           | -            | -0.330  |
|                         | Spontaneous | -0.166      | -                  | -0.123      | 0.043             | -            | 0.104   |
| NP                      | nSec        | -           | -0.084             | -0.019      | -                 | -0.302       | -0.189  |
|                         | nAff        | -           | 0.214              | 0.221       | -                 | 0.011        | -0.126  |
|                         | nPow        | -           | $0.289^{\dagger}$  | 0.239       | -                 | 0.183        | 0.135   |
|                         | nAch        | -           | $-0.283^{\dagger}$ | -0.236      | -                 | 0.020        | 0.011   |
| F                       |             | 2.991*      | $2.242^{\dagger}$  | $2.714^{*}$ | $2.297^{\dagger}$ | 1.369        | 1.605   |
| $\Delta F$              |             | -           | -                  | 1.941       | -                 | -            | 0.784   |
| $\mathbf{R}^2$          |             | $0.312^{*}$ | $0.209^{\dagger}$  | $0.457^{*}$ | $0.168^{\dagger}$ | 0.086        | 0.214   |
| Adjusted R <sup>2</sup> |             | $0.208^{*}$ | $0.116^{\dagger}$  | $0.289^{*}$ | $0.095^{\dagger}$ | 0.023        | 0.081   |
| $\Delta R^2$            |             | -           | -                  | 0.145       | -                 | -            | 0.047   |

Table 4.13 (B): Industry-wise analysis of GDMS and NP prediction towards TE

Note: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p<0.01; <sup>\*</sup>p<0.05; <sup>†</sup>p<0.10, Dependent Variable is Team Effectiveness,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F.

In Service Industry, none of the styles except Avoidant DMS and also none of the needs have significant prediction towards TE. The beta coefficient of Avoidant style ( $\beta$ = -0.363, p<0.05) is significant. The variance explained by GDMS in TE is 9.5% but at a significant level 0.10 (adjusted R<sup>2</sup>= 0.095, p<0.10). Variance through NP and through both GDMS and NP in TE is 113

not significant, Table 4.13 (B). The sample size of Telecom Industry (N=32) seems again very small to run regression analysis, however here also the analysis (not shown here) revealed that only Avoidant style significantly predicts TE ( $\beta$ = -0.651, p<0.05) and only the GDMS significantly explained TE.

**Summary:** Industry-wise analysis suggests that Rational and most importantly Avoidant DMS predicts TE. However, the association of Rational style is positive and Avoidant style is negative with TE. Also, the nSec has negative, and nAff as well as nAch have positive association with TE. Moreover, Dependent style positively associates with TE in IT-ITES and nPow positively associates with TE in PME industry.

#### 4.7.3 Sector-wise Analysis

The results of sector wise analysis are shown in Table 4.14.

Table 4.14: Sector-wise analysis of GDMS and NP prediction towards TE

|             | Private Sector (N=476)  |  |  | Pub  | lic Sector (N   | N=65)  |
|-------------|---|--|--|--|---|--|
|             | GDMS  | NP   | GDMS   | GDMS   | NP  | GDMS   |
|             |   |  | &  |  |   | &  |
|             |   |  | NP   |  |   | NP   |
|             | Model 1   | Model 2  | Model 3  | Model 1  | Model 2   | Model 3  |
| Rational    | 0.221**   | -  | 0.192**  | 0.334**  | _   | $0.299^{*}$  |
| Intuitive   | 0.024   | -  | 0.022  | 0.095  | -   | 0.034  |
| Dependent   | 0.029   | -  | 0.042  | $-0.218^{\dagger}$                                     | -   | $-0.225^{*}$   |
| Avoidant    | -0.320***   | -  | -0.297***  | -0.290***  | -   | $-0.255^{*}$   |
| Spontaneous | -0.037  | -  | -0.040   | 0.024  | -   | 0.005  |
| nSec        | -   | -0.265**   | -0.168**   | -  | -0.158  | -0.028   |
| nAff        | -   | $0.105^{*}$  | $0.098^{*}$  | -  | 0.025   | 0.051  |
| nPow        | -   | 0.044  | 0.004  | -  | $0.394^{**}$  | $0.328^{**}$   |
| nAch        | -   | $0.119^{*}$  | $0.106^{*}$  | -  | 0.186   | 0.074  |
|             | 20.407**  | 9.094**  | 13.961**   | 5.995**  | 4.387**   | 5.296*   |
|             | -   | -  |  | -  | -   | 3.269**  |
|             | $0.178^{**}$  | $0.072^{**}$   | $0.212^{**}$   | $0.337^{**}$   | $0.226^{**}$  | $0.464^{*}$  |
|             | $0.170^{**}$  | $0.064^{**}$   | $0.197^{**}$   | $0.281^{**}$   | $0.175^{**}$  | $0.377^*$  |
|             | -   | -  | $0.033^{**}$   | -  | -   | $0.127^{*}$  |
|             | Intuitive<br>Dependent<br>Avoidant<br>Spontaneous<br>nSec<br>nAff<br>nPow | GDMSRational0.221***Intuitive0.024Dependent0.029Avoidant-0.320**Spontaneous-0.037nSec-nAff-nPow- | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ |

Note: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p<0.01; <sup>\*</sup>p<0.05, <sup>†</sup>p<0.10, Dependent Variable is Team Effectiveness,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F.

Though, the participation of Private (N=476) sector executives is higher than Public sector (N=65), yet regression analysis has revealed some significant pattern. In Private sector, the Rational ( $\beta$ = 0.221, p<0.01) and Avoidant DMS ( $\beta$ = -0.320, p<0.01) have significant predictions of TE, when GDMS is a predictor. Whereas NP being a predictor has a significant

prediction of TE through nSec ( $\beta$ = -0.265, p<0.01), nAff ( $\beta$ = 0.105, p<0.05) and also through nAch ( $\beta$ = 0.119, p<0.05). GDMS and NP together also significantly predict TE through Rational DMS ( $\beta$ = 0.192, p<0.01), Avoidant DMS ( $\beta$ = -0.297, p<0.01), nSec ( $\beta$ = -0.168, p<0.01), nAff ( $\beta$ = 0.098, p<0.05) and nAch ( $\beta$ = 0.106, p<0.05). However, all the coefficients have diminished. The GDMS accounts for 17.8% variance in TE (R<sup>2</sup>= 0.178, p<0.01), NP explains 7.2% variance in TE (R<sup>2</sup>= 0.072, p<0.01) and together GDMS and NP account for 21.2% variance in TE (R<sup>2</sup>= 0.212, p<0.01). The unique contribution of NP towards the variance over and above GDMS is 3.3% ( $\Delta$ R<sup>2</sup> = 0.033, p<0.01).

In Public sector, GDMS being a predictor of TE has significant beta coefficients of Rational DMS ( $\beta$ = 0.334, p<0.01), Avoidant DMS ( $\beta$ = -0.290, p<0.01) and also of Dependent DMS ( $\beta$ = -0.218, p<0.10), while the NP as a predictor has significant coefficients of only nPow ( $\beta$ = 0.394, p<0.01). When both GDMS and NP are the predictors, then also the patterns remain the same i.e. Rational DMS ( $\beta$ = 0.299, p<0.05), Dependent DMS ( $\beta$ = -0.225, p<0.05), Avoidant DMS ( $\beta$ = -0.255, p<0.05) and nPow ( $\beta$ = 0.328, p<0.01) significantly predict TE. However, the coefficient of Dependent style has risen and become more significant. Here the variance accounted in TE by GDMS is 28.1% (adjusted R<sup>2</sup>= 0.281, p<0.01), by NP is 17.5% (adjusted R<sup>2</sup>= 0.175, p<0.01) and together GDMS and NP is 37.7% (adjusted R<sup>2</sup>= 0.377, p<0.05). The unique variance by the NP in TE above GDMS is 12.7% ( $\Delta$ R<sup>2</sup>= 0.127, p<0.05). The small sample size of Public sector led to the consideration of adjusted R<sup>2</sup>, however the gap between R<sup>2</sup> and adjusted R<sup>2</sup> is not that wide.

**Summary:** Sector wise analysis marks out the importance of Rational, Avoidant and Dependent DMS towards prediction of TE. Most importantly, the Dependent style had a negative prediction towards TE in Public sector. In IT-ITES industry, the Dependent style had a positive prediction towards TE where all respondents were from Private sector. Moreover, all needs except nPow were observed to be significant predictors of TE in Private sector; however the nPow also had a significant prediction towards TE, but only in the Public sector. On the other hand, the nSec had negative significant association with TE in the sector wise analysis, however rest all needs positively predicted TE.

### 4.7.4 Experience-level-wise Analysis

Table 4.15 (A), in Junior-level executives (those who have less than 5 years experience), among GDMS the Rational ( $\beta$ = 0.246, p<0.01) and Avoidant styles ( $\beta$ = -0.287, p<0.01) have a significant prediction towards TE. Among NP, the nSec ( $\beta$ = -0.297, p<0.01) and nAch ( $\beta$ = 0.157, p<0.01) have significant beta coefficients as predictors toward TE. Together GDMS and NP also have predicted TE through Rational DMS ( $\beta$ = 0.216, p<0.01), Avoidant DMS ( $\beta$ = -0.240, p<0.01), nSec ( $\beta$ = -0.204, p<0.01) and nAch ( $\beta$ = 0.127, p<0.05). All the coefficients have however decreased. Variance accounted by GDMS in TE is 17.8% (R<sup>2</sup>= 0.178, p<0.01), by the NP in TE is 9.8% (R<sup>2</sup>= 0.098, p<0.01) and together by GDMS and NP in TE is 22.1% (R<sup>2</sup>= 0.221, p<0.01). The unique variance by NP over and above GDMS is 4.3% ( $\Delta$ R<sup>2</sup> = 0.043, p<0.01).

|                         |             | Junio        | r-level Exec | utives       | Middle       | e-level Exe  | cutives      |
|-------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         |             | GDMS         | NP           | GDMS         | GDMS         | NP           | GDMS         |
|                         |             |              |              | &            |              |              | &            |
|                         |             |              |              | NP           |              |              | NP           |
| Antecedents             |             | Model 1      | Model 2      | Model 3      | Model 1      | Model 2      | Model 3      |
| GDMS                    | Rational    | 0.246**      | -            | 0.216**      | $0.262^{**}$ | -            | $0.237^{**}$ |
|                         | Intuitive   | 0.011        | -            | 0.026        | 0.073        | -            | 0.070        |
|                         | Dependent   | 0.058        | -            | 0.066        | -0.045       | -            | -0.055       |
|                         | Avoidant    | -0.287**     | -            | -0.240***    | -0.332**     | -            | -0.326***    |
|                         | Spontaneous | -0.027       | -            | -0.020       | -0.023       | -            | -0.050       |
| NP                      | nSec        | -            | -0.297**     | -0.204**     | -            | -0.188       | -0.098       |
|                         | nAff        | -            | 0.092        | 0.073        | -            | $0.153^{*}$  | $0.174^{*}$  |
|                         | nPow        | -            | 0.077        | 0.017        | -            | 0.080        | 0.047        |
|                         | nAch        | -            | $0.157^{**}$ | $0.127^{*}$  | -            | 0.119        | 0.085        |
| F                       |             | 10.759**     | 6.828**      | 7.725        | 9.595**      | 3.693**      | 6.950**      |
| ${\Delta F \over R^2}$  |             | -            | -            | 3.412**      | -            | -            | 3.130*       |
| $\mathbf{R}^2$          |             | $0.178^{**}$ | 0.098**      | $0.221^{**}$ | 0.194**      | 0.069**      | 0.243**      |
| Adjusted R <sup>2</sup> |             | 0.161**      | $0.084^{**}$ | 0.192**      | $0.174^{**}$ | $0.050^{**}$ | $0.208^{**}$ |
| $\Delta R^2$            |             | -            | -            | 0.043**      | -            | -            | $0.049^{**}$ |

Table 4.15 (A): Experience-level-wise analysis of GDMS and NP prediction towards TE

Note: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p<0.01; <sup>\*</sup>p<0.05, Dependent Variable is Team Effectiveness,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F.

In Middle-level executives (those who have 5 to 15 years experience), among GDMS the Rational ( $\beta$ = 0.262, p<0.01) and Avoidant styles ( $\beta$ = -0.332, p<0.01) have a significant prediction towards TE. Among NP, the nSec ( $\beta$ = -0.188, p<0.05) and nAff ( $\beta$ = 0.153, p<0.05) have significant beta coefficients as predictors toward TE. Together GDMS and NP significantly predict TE through Rational DMS ( $\beta$ = 0.237, p<0.01), Avoidant DMS ( $\beta$ = -0.326, 116

p<0.01) and nAff ( $\beta$ = 0.174, p<0.05). Here, the nSec with a decrement is no more significant, while the nAff is still significant with an increment. Variance accounted by GDMS in TE is 19.4% (R<sup>2</sup>= 0.194, p<0.01), by the NP in TE is 6.9% (R<sup>2</sup>= 0.069, p<0.01) and together by GDMS and NP in TE is 24.3% (R<sup>2</sup>= 0.243, p<0.01). The unique variance by NP over and above GDMS is 4.9% ( $\Delta$ R<sup>2</sup>= 0.049, p<0.01).

Table 4.15 (B), in Senior-level executives (those who have above 15 years experience), only Avoidant style ( $\beta$ = -0.410, p<0.01) has a significant prediction towards TE, while none of the needs have significant beta coefficient. Together GDMS and NP also have significant (however diminished) coefficient of Avoidant style ( $\beta$ = -0.397, p<0.01). The variance accounted in TE by GDMS is 17.7% (adjusted R<sup>2</sup>= 0.177, p<0.01). The variance by NP is not significant (rather negative). GDMS and NP together account for 13.5% (adjusted R<sup>2</sup>= 0.135, p<0.05) variance in TE.

|                         |             |              | Senior-level Exec | cutives      |
|-------------------------|-------------|--------------|-------------------|--------------|
|                         |             | GDMS         | NP                | GDMS &<br>NP |
| Antecedents             |             | Model 1      | Model 2           | Model 3      |
| GDMS                    | Rational    | 0.127        | -                 | 0.129        |
|                         | Intuitive   | 0.049        | -                 | 0.044        |
|                         | Dependent   | 0.057        | -                 | 0.059        |
|                         | Avoidant    | -0.410***    | -                 | -0.397***    |
|                         | Spontaneous | -0.072       | -                 | -0.045       |
| NP                      | nSec        | _            | -0.183            | -0.021       |
|                         | nAff        | -            | 0.043             | 0.019        |
|                         | nPow        | -            | 0.106             | 0.043        |
|                         | nAch        | -            | -0.079            | -0.058       |
| F                       |             | 4.443**      | 0.921             | $2.388^{*}$  |
| $\Delta F$              |             | -            | -                 | 0.088        |
| $R^2$                   |             | $0.229^{**}$ | 0.046             | $0.232^{*}$  |
| Adjusted R <sup>2</sup> |             | $0.177^{**}$ | -0.004            | $0.135^{*}$  |
| $\Delta R^2$            |             | -            | -                 | 0.004        |

Table 4.15 (B): Experience-level-wise analysis of GDMS and NP prediction towards TE

Note: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p<0.01; <sup>\*</sup>p<0.05, Dependent Variable is Team Effectiveness,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F.

**Summary:** Experience-level-wise analysis suggests that Avoidant DMS negatively and Rational DMS positively predicts TE. Also, the nSec negatively, and nAch and nAff positively predict TE.

### **4.8 PREDICTION OF TE CONSTITUENTS**

#### 4.8.1 Prediction of TE constituents through GDMS

Table 4.16 shows that the GDMS explain significant variance ( $\mathbb{R}^2$ ) in all TE constituents. The variance explained in Team Empowerment is greater than the variance caused in Team Functioning. Specifically Rational DMS has positive (p<0.01) and Avoidant DMS has negative (p<0.01) prediction towards all the constituents of TE dimensions (Team Functioning and Team Empowerment). Intuitive DMS is observed to positively impact Collaboration ( $\beta$ = - 0.074, p<0.10), while Spontaneous DMS has negative significant prediction of autonomy ( $\beta$ = - 0.095, p<0.05).

|                       | Coh          | Conf         | Coll            | TF        | Tsk Cl               | Aut                 | Supp         | Acc       | TEmp      |
|-----------------------|--------------|--------------|-----------------|-----------|----------------------|---------------------|--------------|-----------|-----------|
| R                     | 0.146**      | 0.139**      | 0.146**         | 0.174 *** | $0.262^{**}$         | 0.202**             | $0.185^{**}$ | 0.216**   | 0.264**   |
| Ι                     | -0.025       | 0.028        | $0.074^\dagger$ | 0.032     | 0.012                | 0.072               | 0.012        | 0.012     | 0.032     |
| D                     | -0.015       | -0.012       | 0.043           | 0.007     | 0.014                | -0.020              | 0.012        | 0.026     | 0.011     |
| Α                     | -0.238**     | -0.205***    | -0.292**        | -0.298**  | -0.245**             | -0.172***           | -0.279**     | -0.285*** | -0.300**  |
| S                     | -0.030       | 0.014        | -0.005          | -0.009    | -0.003               | -0.095*             | 0.003        | -0.035    | -0.038    |
| R <sup>2</sup>        | 0.096***     | $0.070^{**}$ | 0.124**         | 0.137**   | 0.150**              | 0.102**             | 0.128**      | 0.154**   | 0.194**   |
| $\Delta \mathbf{R}^2$ | $0.088^{**}$ | $0.061^{**}$ | 0.116***        | 0.129**   | $0.142^{**}$         | 0.094 <sup>**</sup> | 0.119***     | 0.146***  | 0.186**   |
| F                     | 11.419***    | 8.049**      | 15.161**        | 16.991**  | 18.889 <sup>**</sup> | 12.194**            | 15.641**     | 19.477*** | 25.725*** |

Table 4.16: Prediction of TE constituents through GDMS (N=541)

Note 1: Coefficients are standardized beta values ( $\beta$ ); \*\*p<0.01; \*p<0.05, <sup>†</sup>p<0.10,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F; Note 2: R= Rational, I=Intuitive, D=Dependent, A=Avoidant, S=Spontaneous, Coh= Cohesion, Coll= Collaboration, Conf= Confrontation, TF= Team Functioning, Tsk Cl= Task Clarity, Aut= Autonomy, Supp= Support, Acc= Accountability, TEmp= Team Empowerment,  $\Delta R^2$ = adjusted R<sup>2</sup>

# 4.8.2 Prediction of TE constituents through NP

Table 4.17 shows that the NP explain significant variance  $(R^2)$  in all TE constituents.

|                       | Coh                 | Conf         | Coll              | TF              | Tsk Cl        | Aut             | Supp         | Acc         | TEmp         |
|-----------------------|---------------------|--------------|-------------------|-----------------|---------------|-----------------|--------------|-------------|--------------|
| nSec                  | -0.175***           | -0.152**     | -0.194**          | -0.211***       | -0.261**      | -0.197***       | -0.187***    | -0.163**    | -0.247***    |
| nAff                  | $0.103^{*}$         | 0.070        | $0.082^{\dagger}$ | 0.103*          | $0.088^{*}$   | $0.078^\dagger$ | 0.042        | $0.095^{*}$ | 0.093 ***    |
| nPow                  | 0.046               | 0.060        | $0.087^{\dagger}$ | $0.078^\dagger$ | 0.054         | 0.071           | $0.119^{**}$ | 0.049       | $0.089^{*}$  |
| nAch                  | 0.054               | $0.114^{*}$  | 0.128**           | 0.121**         | 0.129**       | 0.016           | 0.054        | 0.121***    | $0.099^{*}$  |
| R <sup>2</sup>        | 0.034**             | 0.036**      | 0.055**           | 0.059**         | 0.072**       | 0.039**         | 0.043**      | 0.042**     | 0.067**      |
| $\Delta \mathbf{R}^2$ | $0.027^{**}$        | $0.029^{**}$ | $0.048^{**}$      | $0.052^{**}$    | $0.065^{**}$  | 0.031**         | 0.036**      | 0.035       | $0.060^{**}$ |
| F                     | 4.775 <sup>**</sup> | 5.016***     | 7.843**           | $8.460^{**}$    | $10.347^{**}$ | $5.375^{**}$    | $6.085^{**}$ | 5.837***    | 9.671**      |

Table 4.17: Prediction of TE constituents through NP (N=541)

Note 1: Coefficients are standardized beta values ( $\beta$ ); <sup>\*\*</sup>p<0.01; <sup>\*</sup>p<0.05, <sup>†</sup>p<0.10,  $\Delta R^2$ =Change in R<sup>2</sup>,  $\Delta F$ =Change in F; Note 2: Coh= Cohesion, Coll= Collaboration, Conf= Confrontation, TF= Team Functioning, Tsk Cl= Task Clarity, Aut= Autonomy, Supp= Support, Acc= Accountability, TEmp= Team Empowerment,  $\Delta R^2$ = adjusted R<sup>2</sup>

The variance explained in Team Empowerment is higher than that in Team Functioning. The nSec has negative (p<0.01) prediction towards all the constituents of TE dimensions of Team Functioning and Team Empowerment. The nAch also has positive predictions for confrontation  $(\beta = 0.114, p < 0.05)$ , collaboration  $(\beta = 0.128, p < 0.01)$ , task clarity  $(\beta = 0.129, p < 0.01)$ , accountability ( $\beta$ = 0.121, p<0.01), Team Functioning ( $\beta$ = 0.121, p<0.01) and Team Empowerment ( $\beta$ = 0.099, p<0.05). Moreover, the nAff positively predicts cohesion ( $\beta$ = 0.103, p<0.05), collaboration ( $\beta$ = 0.082, p<0.10), Team Functioning ( $\beta$ = 0.103, p<0.05), task clarity  $(\beta = 0.088, p < 0.05)$ , autonomy  $(\beta = 0.078, p < 0.10)$ , accountability  $(\beta = 0.095, p < 0.05)$  and Team Empowerment ( $\beta$ = 0.093, p<0.01). Furthermore, the power motive has positive prediction towards support ( $\beta$ = .119, p<0.01), collaboration ( $\beta$ = 0.087, p<0.10), Team Functioning ( $\beta$ = 0.078, p<0.10) and Team Empowerment ( $\beta = 0.089$ , p<0.05).

#### 4.8.3 Prediction of TE constituents through GDMS and NP

|                       | Coh                 | Conf               | Coll              | TF           | Tsk Cl       | Aut                 | Supp            | Acc                 | TEmp            |
|-----------------------|---------------------|--------------------|-------------------|--------------|--------------|---------------------|-----------------|---------------------|-----------------|
| R                     | 0.135***            | $0.114^{*}$        | 0.111             | $0.145^{**}$ | 0.234**      | $0.188^{**}$        | 0.156***        | 0.199 <sup>**</sup> | $0.237^{**}$    |
| Ι                     | -0.031              | 0.028              | $0.075^{\dagger}$ | 0.030        | 0.014        | 0.069               | 0.012           | 0.009               | 0.031           |
| D                     | -0.013              | -0.006             | 0.056             | $0.016_{**}$ | 0.030        | -0.005              | 0.031           | 0.023               | 0.025           |
| Α                     | -0.220**            | -0.192**           | -0.274 **         | -0.279 **    | -0.216       | -0.148              | -0.262**        | -0.274              | -0.276**        |
| S                     | -0.036              | 0.001              | -0.020            | -0.022       | -0.004       | -0.093*             | -0.005          | -0.049              | -0.044          |
| nSec                  | -0.091              | $-0.088^{\dagger}$ | -0.119***         | -0.121**     | -0.180**     | -0.126              | -0.104*         | -0.063              | -0.145          |
| nAff                  | 0.103*              | 0.063              | 0.064             | 0.093*       | 0.083*       | $0.076^\dagger$     | 0.033           | $0.089^{*}$         | $0.085^{*}$     |
| nPow                  | 0.017               | 0.029              | 0.057             | 0.042        | 0.007        | 0.037               | $0.082^\dagger$ | 0.009               | 0.041           |
| nAch                  | 0.042               | $0.103^{*}$        | $0.117^{**}$      | $0.107^{*}$  | $0.101^{*}$  | 0.000               | 0.037           | $0.101^{*}$         | $0.074^\dagger$ |
| $\mathbf{R}^2$        | 0.112**             | $0.089^{**}$       | 0.153**           | 0.166**      | 0.814**      | 0.118 <sup>**</sup> | 0.143**         | $0.174^{**}$        | 0.219**         |
| $\Delta \mathbf{R}^2$ | $0.097^{**}$        | $0.074^{**}$       | 0.135***          | $0.152^{**}$ | $0.170^{**}$ | $0.103^{**}$        | $0.128^{**}$    | $0.160^{**}$        | $0.206^{**}$    |
| F                     | 7.459 <sup>**</sup> | 5.767***           | 10.631**          | 11.742**     | 13.281**     | 7.905               | 9.823**         | 12.415***           | 16.569**        |

Note 1: Coefficients are standardized beta values ( $\beta$ ); \*\*p<0.01; \*p<0.05, †p<0.10,  $\Delta R^2$ =Change in  $R^2$ ,  $\Delta F$ =Change in F; Note 2: R= Rational, I=Intuitive, D=Dependent, A=Avoidant, S=Spontaneous, Coh= Cohesion, Coll= Collaboration, Conf= Confrontation, TF= Team Functioning, Tsk Cl= Task Clarity, Aut= Autonomy, Supp= Support, Acc= Accountability, TEmp= Team Empowerment,  $\Delta R^2$  = adjusted  $R^2$ 

Table 4.18 shows the prediction of TE constituents through both GDMS and NP. Here also, Rational DMS positively and Avoidant DMS negatively predict TE constituents. The coefficients have however diminished. Intuitive DMS still positively impacts collaboration and Spontaneous style still negatively predicts autonomy. The nSec negatively predicts all, but it no more predicts accountability. Also, the level of significance predicting confrontation has

lowered to p<0.10. The nAff has predictive association at p<0.05 with only cohesion, task clarity, accountability, Team Empowerment, Team Functioning and with autonomy at p<0.10. Here, nAff alongwith GDMS no longer predicts collaboration. The power motive still predicts support; however the level of significance has got down (p<0.10). The nAch still has the same predictive pattern for all, but not for cohesion, autonomy and support.

**Summary:** Till here, the hypotheses pertaining to Rational and Avoidant DMS have been supported. The hypotheses related to all needs have also fetched support. However the partial support has been attained for Dependent DMS and TE hypothesis. Hypothesized relations of Intuitive and Spontaneous DMS with TE have however not attained significant support.

### **4.9 SUMMARY OF RESULTS OF THE HYPOTHESES**

| Table 4.19: Final results of hypotheses   |               |
|---|---------------|
| Hypothesis  | Result        |
| H1: Indian executives have Rational DMS as their major DMS, Intuitive             | Partially     |
| DMS and Dependent DMS as their back up DMS, and Avoidant DMS as                   | Supported     |
| well as Spontaneous DMS are least in their approaches.                            |               |
| H2: There is mutual correlation among the constructs of GDMS.                     | Supported     |
| H3a: Decision making styles of Indian executives vary across levels of            | Partially     |
| experience.   | Supported     |
| H3b: Decision making styles of Indian executives vary across males and            | Partially     |
| females.  | Supported     |
| H3c: Decision making styles of Indian executives vary across educational          | Partially     |
| qualifications.   | Supported     |
| H3d: Decision making styles of Indian executives vary across industries.          | Partially     |
|   | Supported     |
| H3e: Decision making styles of Indian executives vary across the public           | Partially     |
| and private sector.   | Supported     |
| H4: Indian executives have highest nAch, and comparatively high nPow              | Partially     |
| and nAff, but they possess lower nSec   | Supported     |
| H5: Secondary motives/needs are mutually correlated but conceptually              | Supported     |
| different.  |               |
| H6a: Secondary motives/needs of Indian executives vary across levels of           | Partially     |
| experience.   | Supported     |
| H6b: Secondary motives/needs of Indian executives vary across males and           | Not Supported |
| females.  |               |
| H6c: Secondary motives/needs or needs of Indian executives vary across            | Not Supported |
| educational qualifications.   |               |
| <i>H6d</i> : Secondary motives/needs of Indian executives vary across industries. | Partially     |
|   | Supported     |
|   |               |

Table 4.19: Final results of hypotheses

| Hypothesis  | Result        |
|---|---------------|
| <i>H6e</i> : Secondary motives/needs of Indian executives vary across the public  | Not Supported |
| and private sector.   |               |
| H7a: Indian executives have considerable (above 60%) levels of team               | Supported     |
| functioning.  |               |
| H7b: Indian executives have considerable (above 60%) levels of team               | Supported     |
| empowerment.  |               |
| H7c: Indian executives have considerable (above 60%) levels of team               | Supported     |
| effectiveness.  |               |
| H8: There is mutual correlation between team functioning and team                 | Supported     |
| empowerment.  |               |
| H9a: Team Effectiveness of Indian executives varies across levels of              | Not Supported |
| experience.   |               |
| H9b: Team Effectiveness of Indian executives varies across males and              | Not Supported |
| females.  |               |
| H9c: Team Effectiveness of Indian executives varies across educational            | Not Supported |
| qualifications.   |               |
| <i>H9d</i> : Team Effectiveness of Indian executives varies across industries.    | Supported     |
| H9e: Team Effectiveness of Indian executives varies across the public and         | Not Supported |
| private sector.   |               |
| H9f: Team Functioning of Indian executives varies across levels of                | Not Supported |
| experience.   |               |
| H9g: Team Functioning of Indian executives varies across males and                | Not Supported |
| females.  |               |
| H9h: Team Functioning of Indian executives varies across educational              | Not Supported |
| qualifications.   |               |
| H9i: Team Functioning of Indian executives varies across industries.              | Supported     |
| <i>H9j</i> : Team Functioning s of Indian executives varies across the public and | Not Supported |
| private sector.   |               |
| H9k: Team Empowerment of Indian executives varies across levels of                | Supported     |
| experience.   |               |
| H91: Team Empowerment of Indian executives varies across males and                | Not Supported |
| females.  |               |
| H9m: Team Empowerment of Indian executives varies across educational              | Not Supported |
| qualifications.   |               |
| H9n: Team Empowerment of Indian executives varies across industries.              | Not Supported |
| <i>H90</i> : Team Empowerment of Indian executives varies across the public and   | Supported     |
| private sector.   |               |
| H10: Various General decision making styles and need pattern together             | Partially     |
| predict Team Effectiveness.   | Supported     |
| <i>H10a</i> : General decision making style predicts Team Effectiveness.          | Partially     |
|   | Supported     |
| <i>H10<sub>a1</sub></i> : Rational DMS positively predicts Team Effectiveness.    | Supported     |
| $H10_{a2}$ : Intuitive DMS negatively predicts Team Effectiveness.                | Not Supported |
| $H10_{a3}$ : Dependent DMS positively predicts Team Effectiveness.                | Partially     |
|   | Supported     |

| Hypothesis  | Result        |
|---|---------------|
| $H10_{a4}$ : Avoidant DMS negatively predicts Team Effectiveness.                           | Supported     |
| $H10_{a5}$ : Spontaneous DMS negatively predicts Team Effectiveness.                        | Not Supported |
| H10b: Need Pattern predicts Team Effectiveness.   | Supported     |
| H10 <sub>b1</sub> : Need for Achievement (nAch) positively predicts Team                    | Supported     |
| Effectiveness.  |               |
| $H10_{b2}$ : Need for Power (nPow) positively predicts Team Effectiveness.                  | Supported     |
| $H10_{b3}$ : Need for Affiliation (nAff) positively predicts Team Effectiveness.            | Supported     |
| <i>H10</i> <sub>b4</sub> : Need for Security (nSec) negatively predicts Team Effectiveness. | Supported     |

# 4.10 COMPARING ORIGINAL AND ALTERNATE MODEL FIT

Out of the curiosity to know the alternate relationship between the study variables, the Structural Equation Modeling (using AMOS v20.0) was used. Here first, the original model was run keeping the styles and needs as Independent and TE as Dependent Variable. Then, an alternate model was run with TE as Independent and other constructs as Dependent Variables. Figure 4.1 & 4.2 show the Original and the Alternate Model respectively. Table 4.20 shows the model fit indices.

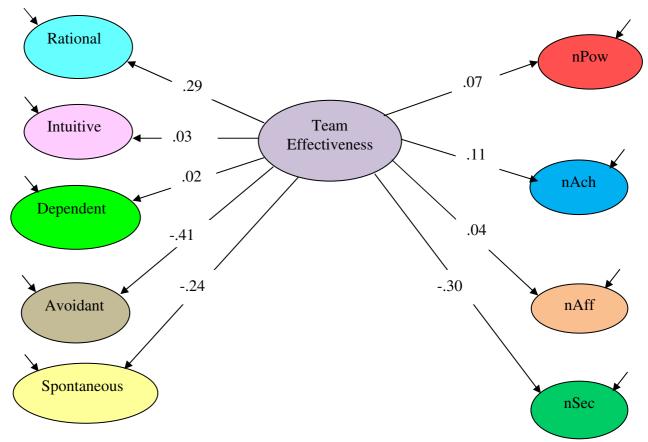


Figure 4.1: The Original Model (Styles and Needs as predictors of TE)

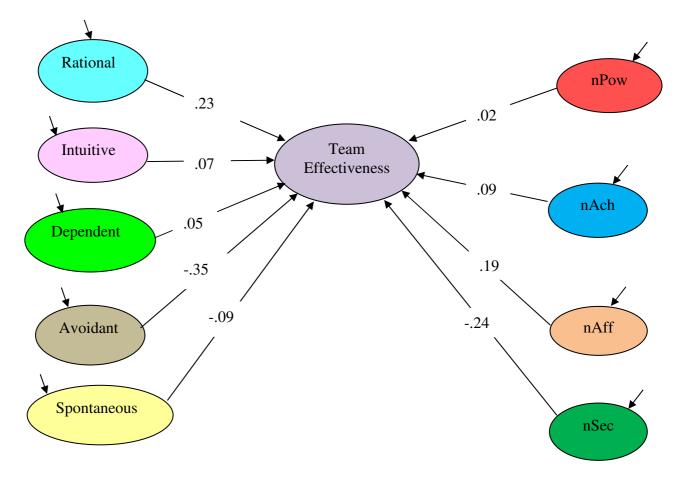


Figure 4.2: The Alternate Model (TE as a predictor of Styles and Needs)

| Table 4.20 The Model Fit Indices of the Original and Alternate Models |  |
|---|--|
|   |  |

| Model     | χ2       | df   | р     | χ2/df | GFI   | AGFI  | RMSEA | RMR   | CFI   | PGFI  | PNFI  |
|-----------|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Original  | 4028.898 | 2414 | 0.000 | 1.669 | 0.823 | 0.807 | 0.035 | 0.071 | 0.826 | 0.756 | 0.622 |
| Alternate | 5312.490 | 2475 | 0.000 | 2.146 | 0.715 | 0.697 | 0.046 | 0.085 | 0.693 | 0.673 | 0.533 |

Note: Original= TE is the Dependent Variable, GDMS and NP Constructs are Independent Variables

Alternate= GDMS and NP constructs are Dependent Variables, TE is the Independent Variable

The findings reveal that the original model not only affirms the hypothesized directions of associations of Styles and Needs with TE, but also have comparatively better and acceptable model fit indices than the Alternate Model, as per the statistical literature.

Absolute Fit indices are used to look at how well a model fits the sample data and thus to identify the most superior model. It includes  $\chi^2$ ,  $\chi^2$  /df, RMSEA, GFI, AGFI, RMR etc.

Table 4.20, the  $\chi^2$  Value in both the models is observed to be significant (p=0.000). But due to large sample size, the  $\chi^2$  can produce significant results. Henceforth, the other model fits indices are used for assessing the adequacy of the model. The  $\chi^2$  /df is an indication of goodness of fit, where the ratio below2 is adequate fit (Tabachnik and Fidell, 1996). Original model has an adequate fit ( $\chi^2$  /df= 1.669), while the Alternate doesn't ( $\chi^2$  /df= 2.146).

The RMSEA (Root Mean Square Error of Approximation) denotes that how well the model fits the population covariance matrix, where the 0.05 or less is a close fit, 0.08 or less is a reasonable fit and above this is a poor fit (Browne and Cudeck, 1993). As per this, both the Models have a close fit (RMSEA<0.05).

The GFI (Goodness of Fit) statistic renders the proportion of variance accounted for by the estimated population variance and the Adjusted GFI adjusts the GFI to more saturated model. Though the recommended value of GFI and AGFI is above 0.90 (Bentler and Bonett, 1980); the Original Model (GFI= 0.823, AGFI= 0.807) has better values than the Alternate (GFI= 0.715, AGFI= 0.697). This is justifiable in line with Kline (1991), who recommended AGFI>0.81 and the Original model has AGFI near to 0.81.

The RMR (Root Mean Square Residual) is the square root of the difference between residuals of sample and hypothesized covariance model. RMR > 0.08 indicate a poor fit, between 0.08 and 0.05 suggest a mediocre fit and <0.05 indicate a good fit (Byrne, 1998). Henceforth, the RMR of Original Model (0.071) is mediocre fit, while that of Alternate is poor (0.085).

Incremental/comparative/relative Fit indices utilize the comparison of chi square value to a baseline model. The CFI (comparative fit index) is an advancement of NFI (normed fit index) and it takes into account the discrepancy, the degrees of freedom and a non-centrality parameter estimate (Spicer and Sadler-Smith, 2005). Value of CFI may range from 0 to 1; the value towards 1 is a very good fit whilst value less than 0.9 can usually be improved substantially (Bentler and Bonett, 1980). Accordingly, the Original model's CFI (0.826) is 124

towards 1 and can further be improved, whereas the Alternate model's CFI (0.693) is quite lower than 1.

Parsimony Fit Indices namely PGFI (Parsimony GFI) and PNFI (Parsimony NFI), adjust the GFI and NFI, respectively, for the loss of degrees of freedom. While doing so, these indices discipline for model complexity. According to Costa (2003), PGFI and PNFI values of >0.50 or >0.60 indicate a good parsimony. Therefore, according to this both the models are good but the Original (PGFI= 0.756, PNFI= 0.622) has better parsimony than the Alternate (PGFI= 0.673, PNFI= 0.533).

Thus, various fit indices discussed so far indicate that the Original model (i.e. Styles and Needs as predictors of TE) is a better research model as compared to an Alternate model of research (i.e. TE as a predictor of Styles and Needs).

# 4.11 CHAPTER SUMMARY

The chapter presented relevant analyses and the results of the hypotheses. It first showed the Factor Analysis, Reliability and Validity Analysis. Afterwards, the Descriptive Statistics inclusive of Total and Item-wise analysis rendered the score pattern of the variables (GDMS, NP and TE). Then Correlation Analysis, Tests of Variation and Difference through ANOVA and Independent Sample t-tests were presented. Further, the associations amongst study variables were reported through the tests of predictions and contributions through Regression Analysis which included Aggregate Sample Analysis, Industry-wise Analysis, Sector-wise Analysis, and Experience level-wise analysis. It was followed by the prediction of components of TE through GDMS and NP. Towards the end, the results of the hypotheses were specified in tabular format. Finally, the Original Model (GDMS and NP as predictors of TE) and the Alternate Model (TE as a predictor of GDMS and NP) were compared and discussed. The factor structure of GDMS and NP has been diagnosed and affirmed. TE construct has been retained as original after confirming the reliability coefficients of its constructs. Highest observed components are Rational DMS, nAch and Task Clarity. Least are the Avoidant DMS, nSec and Autonnomy. Team Functioning is higher than Team Empowerment and total TE is 68.04%. There are mutual correlations amongst the styles and the needs are also correlated. Both TE components are correlated as well. Few significant variations in DMS, needs and TE are found across the attributes like industry, experience, sector, gender and education. It has been observed that Rational, Avoidant and Dependent Style are significant predictors of TE. Also, all secondary motives (nSec, nPow, nAff and nAch) are observed as significant predictors of TE. The predictive model of this research (GDMS and NP as predictors of TE) is better as compared to an alternate model (TE as predictor of GDMS and NP).

# DISCUSSION

This chapter incorporates the discussion on the results obtained in the previous chapter. The chapter has been arranged in the hierarchy of accomplishment of the objectives. It begins with an introduction and thereafter one by one the accomplishment of objectives (O1, O2, O3, O4 and O5) has been presented. Within each objective's accomplishment, the results of the relevant hypotheses have been discussed.

# **5.1 INTRODUCTION**

Having affirmed the structure of instruments (GDMS and NPS), the interpretation of results has become more convenient. The TEAM is a generic survey instrument and its components are well discussed in the introduction and literature review part of the study. Hence, to sustain the conceptualization of team and task function (Volmer and Sonnentag, 2011), the TEAM factor structure has been retained as original. The content validity of the three scales is affirmed. The convergent validity of GDMS and NPS is also firm. The reliability analysis of the three scales has revealed their consistency in the measurement of intended variables. The preliminary conditions before exploring and interpreting the results are therefore fulfilled. The sections ahead will interpret the obtained results.

# **5.2 ACCOMPLISHMENT OF OBJECTIVE 1 (01)**

# O1: To study the general decision making style of executives in select Indian Organizations.

# 5.2.1 Average GDMS

The style of decision making has become a focus for measuring effectiveness of executives. The problems faced by contemporary executives are four times more complex than the ones faced by their counterparts fifty years back. Therefore the type of thinking involved in solving problems is very significant (Dhar and Arora, 1996).

On an average basis, Indian executives are having Rational DMS as their preliminary DMS and Intuitive as well as Dependent DMS as their back up DMS. It means that they accept responsibility for decision making. As per the score observations, the executives carefully plan their decisions, double check for the right facts, consider various options in terms of goals, are logical and systematic, and give careful thought before finalizing their decisions. The present study surveyed executives from big organizations having annual turnover of above 100 crore (INR) and observed rational style as their major DMS. This corroborates with the argument of Patrakosol and Kitikannakorn (2009) that large organizations may have more resources and expertise that render high quality information and smoothen the rational decision making. Rational style of executives is accompanied with the intuition that seems to help them to keep check on extended time perspective on being rational. Rational DMS and Intuitive DMS were attributed as opposites by Phillips et al. (1985), but the intuitive style is not always emotional phenomenon, rather it is associated with attention to detail (Scott and Bruce, 1995). The intuition is utilized by the executives to choose the right option and here they decide what they feel right based on inner feelings and reactions. Thus, their insights and instincts become the source of intuition while deciding. It can be inferred that inspite of having unemotionalanalytical rational approach, the intuition is utilized by the Indian executives to choose the best out of all available alternatives. The combination of rational and intuitive style was advocated by Patton (2003) who believed that it is doubtful to have two extreme types of managers with one being extremely intuitional and another being too analytical and therefore a mix of styles should be adopted wherein the nature of the problem would determine the proportion of two. Rational style as major DMS is ideal and it reflects the correct decision making profile (Harren, 1979; Keegan, 1984; Chartrand et al., 1993), and the next highest Intuitive style is also justified on the ground of the fact that intuition is needed for being able to scan opportunities and threat (Eccles and Nohria, 1992). Intuitive persons focus on a whole conception of the risk (not only the elements of decision making). This style involves a focus on emotional self-awareness as the basis for choice, the little expectancy of the future and a little logical weighing of alternatives/information seeking (Hablemitoglu and Yildirim, 2008). Thus, it can be argued that executives' Rational DMS leads to an optimal solution through systematic approach and it in combination with Intuitive style indicates the probability of correct decisions (McCaulley, 1990) leveraged from the benefits of both the styles.

The third highest Dependent style reflects the Indian social and cultural contexts where Indians have inbuilt tendency to exchange views and seek expert views before making the ultimate decision (Verma *et al.*, 2012c). It attributes that Indian executives depend on others to operate effectively (Verma *et al.*, 2012d). Moreover, the higher scores on Dependent style reflects

executives' emphasis on social conformity and collective decisions (Mau, 2000). The results of the present study indicate that the foremost reason for dependence is having support and to use quality advices while deciding. Also, consultation and assistance is expected to be required as the majority of participants were from junior and middle level. Such Dependent DMS is reasonable too as a backup DMS because of the associated benefits of involving others in the decision making process (Khasawneh et al., 2011). This in line with Vroom (2003) that in addition to be rational, the executives must consult with others in the organization while making important decisions. To better perform the decision making tasks the executives should have preliminary and back up DMS (Verma et al., 2012d). The comparative second least Spontaneous style signified that executives have lesser chances of deciding on the spot. However 63.56% spontaneous tendency is still present in the executives. The score pattern reveals that executives to somewhat and strongly believe in quick decision making and decide what seem natural at the moment to them. Likewise to certain extent they also decide at one click and spur of the moment. This is perhaps due to the nature of respondents who are majorly from manufacturing and IT-ITES industries where spontaneous decisions are required most often for e.g. in Plants (manufacturing) and in dealing with customers in virtual settings (IT-ITES). However, their somewhat agreement to impulsiveness (to decide without giving much thought) is a matter of concern. The least Avoidant style reflects the presence of very less procrastination amongst the executives; however 47% avoidance present amongst the executives is definitely alarming. Delays, ignorance, rescuing tasks and becoming active at the last moment are a few of the symptoms of avoidance. Only few executives have agreed to do so untill they are in pressure. But, such style could degrade the performance and might also lead to underutilization and underdevelopment of executives because it is detrimental to performance (Flood et al., 2000). Problems must be tackled properly and timely, otherwise stress is likely to occur (Dhar and Arora, 1996) and ultimately the work suffers.

## 5.2.2 Correlation amongst GDMS

The correlations amongst the styles affirm that the styles are not mutually exclusive (Scott and Bruce, 1995) and that more than one approach might prevail in behaviors. People have different decision styles those differ with respect to the amount of information used by them, the number of alternatives considered by them and the extent to which they attempt to integrate and coordinate multiple sources of input (Tatum *et al.*, 2003). Moreover, the obtained correlation

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amongst styles reflect that the executives are not stringent in their decision making behaviors, rather they adopt a combination of styles when faced with any decision making situation (Verma *et al.*, 2012de). The correlations amongst the styles don't signify their conceptual similarity.

The positive correlation of Rational and Dependent DMS is in line with Loo (2000), Spicer and Sadler-Smith (2005), Gambetti *et al.* (2008) etc. It symbolizes that while being rational, executives take advices and look out for consultation. This is perhaps for easily making rational decisions without missing out any relevant information. Positive correlation of Rational and Intuitive style is somehow not in congruence with any earlier findings, but in contradiction to researchers like Scott and Bruce (1995) who obtained negative correlation between these styles. Earlier in studies on Indian executives, these two styles had no significant correlation (Tambe and Krishnan, 2000; Verma *et al.*, 2012de). But it has already been described in the previous section that intuition of executives accompanies their rational approach. This may further be justified as while taking advices, the executives are vigilant to scan the options through their intuition as well. Rational and Avoidant style relates negatively as earlier also obtained by Scott and Bruce (1995), Spicer and Sadler-Smith (2005) etc. It attributes that being rational, the executives are always attentive and active in decision making. In other words, they never let their decisions to be made at the last moment.

Interestingly, the Intuitive style is observed related to all other styles that too positively. Though already specified the association with rational style, its association with Spontaneous style can be justified as that the intuition tends to make person spontaneous to take decisions without getting much indulged into complexities. Earlier also, these two styles have been found positively associated (for e.g. Gambetti *et al.*, 2008; Loo, 2000). The positive association of Intuitive and Dependent style is in line with Loo (2000). It can be argued as stated earlier that advices are not fully trusted by executives but scanned through intuition. Furthermore, the association of Intuitive with Avoidant style perhaps indicates that a strong confidence on intuition tends to make executives delay their decision making tasks to be decided on the spur of the moment. However, the association of Intuitive style with rational and dependent approach doesn't let the dominance of avoidance prevail. The positive correlation of Intuitive and Spontaneous style is in line with Loo (2000), Thunholm (2004), and Spicer and Sadler-

Smith (2005), who all addressed Spontaneous style as a high speed Intuitive decision making. It means that executives trust their inner reactions to decide spontaneously as and when they obtain their best choice. But intuition should not be utilized spontaneously unless it is based on tremendous accumulated expertise (Verma *et al.*, 2012d). As spontaneous style reflects the lesser possibility to plan the work (Salo and Allwood, 2011) and when mere feelings command the spontaneous decision then it may not be successful. The association of Rational and Dependent styles as well as those of Intuitive and Spontaneous styles was also obtained by Phillips *et al.* (1984a). It attributes that Rational DMS reasonably includes strong information search characteristics and it might lead to increased Dependent decision making, and intuition is likely to include spontaneity depending on the level of control the decision makers feel they have over a problem or decision. The obtained positive association between Avoidant and Intuitive style is also in accordance with Phillips *et al.* (1984a). This reflects that the intuition may guide the decisional avoidance or the avoidance eventually enhances the use of intuition for making decisions.

The positive association of Dependent style with Avoidant style is consistent with Tambe and Krishnan (2000) who obtained the same results for Indian executives. It points that while being dependent on others, the decisions are delayed in the wait for best advices. Hence, too much dependence on others for decisions leads to a tendency to rescue the decision making task. In other words, to avoid the decision making task, the decision maker awaits advices from others (Verma *et al.*, 2012d). Lastly, the positive association of Avoidant and Spontaneous DMS implies that avoidance increases the chances of spontaneity that the decisions are made at the last moment all of sudden to meet the deadlines. However, the association of spontaneity with the rational approach lessens the probability of wrong decisions.

## 5.2.3 Variation in GDMS

## 5.2.3.1 Variation in Dependent DMS

Higher Dependent style of IT-ITES to PME and Service executives is perhaps due to the position profiles of respondents. Most of them are engineering graduates and are from junior levels. Being young and inexperienced they often need assistance in their decision making tasks. Moreover, the virtual work settings of IT-ITES firms account for attention to detail while

handling the customers and clients. Inspite of being in customer service, the service firms have lesser Dependent style possibly because of their face to face work settings.

Private firms shown higher dependent style than the Public sector, this could reasonably because all the IT-ITES firms were from the private sector. Indian private sector has higher Dependent style (Verma *et al.*, 2012d) and it can be justified as the jobs in the private sector are unstable enough, where any wrong decision can cause the job loss to the decision maker. In Public sector, the lifetime employment is guaranteed which leads to confidence in decision maker to decide on their own and take risks. In the Private sector, the dependence is somehow essential and advices are sort to improve the decisions to better achieve the task (Verma *et al.*, 2012e). Junior-level executives have a higher dependence than Middle-levels executives, and Middle-level executives have a higher dependence than Senior-level executives. This can be attributed to the fact that seniority brings experience which leads to confidence in making decisions without being dependent on others. Moreover, it reflects that junior learn from middle executives who in turn learn from seniors.

It is interesting to find that female executives have higher Dependent style as compared to males. It symbolizes that females are more into obtaining advices and support from others while making decisions. Earlier in a study of Indian executives (Verma *et al.*, 2012d), the females were observed to be less avoidant as compared to males. Hence, it may be inferred that Indian female executives take the responsibility for decision making but they need assistance of others while finalizing their decisions.

# **5.2.3.2 Variation in Rational DMS**

Executives with Management degrees are found to be more rational than other graduates. It is perhaps due to their awareness about benefits of Rational style. Management education often incorporates the discussion on rational decision making model (for e.g. Robbins *et al.*, 2009) as well as the bounded rationality concepts (Simon, 1945). Thus who are not familiar with the concepts of rationality and associated perks of being rational, often don't behave rationally. Moreover, the findings also highlight that Private sector executives are more rational than those of the Public sector. The difference might be due to representation of only few Public executives in the study (65 only). However, the statistical significance of the difference

accounts for the implications out of such finding. It suggests that in the Public sector the rationality is not as high as in the Private sector. It is in line with previous findings of Verma *et al.* (2012de), which means that the rationality of public and private sectors are not similar. Indian public sector follows strict procedural/rule book rationality while the private sector seeks rationality in terms of maximum gains out of the decisions. Hence in Private sector, decisions are more planned, carefully thought, considered in terms of goals, logical and systematic as well as double checked for right facts (Scott and Bruce, 1995). This again can be attributed to the instability prevailing in the Private sector, where the wrong decisions don't have a scope or margins.

# 5.2.3.3 Variation in Spontaneous DMS

Spontaneous DMS is found higher in Manufacturing industry than Service. As stated earlier, the nature of jobs in manufacturing requires executives to make more spontaneous decisions comparatively. For instance, the accident scenarios and risk in production houses demand spontaneous thoughtfulness from executives. It is justifiable on account of the fact that production and associated process requires many on the spot decisions. Machine handling/plant handling not only needs vigilance but also demands spontaneous decision making from the onsite employees (Verma *et al.*, 2012d). Many a times, a delay would cost high if a decision is not taken as per and on the situation. Executives of manufacturing firms often quote the incidence where their spontaneity saved their organizations from losses, and also saved the lives of factory and other nearby residents. For instance, the cases of fire in the plant, leakage from pipelines, overheating of machines, accidents in the premises, and the like require some quick decisions in the good faith of all. Comparatively, in Service industry, spontaneity is needed but not that much.

Higher Spontaneous style in the Private sector than the Public sector is possibly due to the majority of respondents being from Manufacturing industry. Also, the rest most are from IT-ITES, who work in virtual settings where they are trained for dealing with customers in an online environment. They seek advices from Co workers but actually performing the tasks themselves, they are required to be spontaneous in their reactions and responses. For instance, the software development, consultancies, project handling and other IT-ITES jobs put a

requirement to tackle the situations spontaneously. Unlike the Public sector, here the executives are not capable of risking their jobs.

# 5.2.3.4 Variation in Intuitive DMS

The intuitive style is higher in females as compared to males. Though the lack of female representation in the sample (only 81) can be associated with such a finding, but it indicates that females are more intuitive while deciding as compared to males. It can better be justified as that females are found more dependent than males. Hence while depending on others, they don't solely trust the advices but also rely on their inner feelings and reactions towards such inputs. With this, it can be inferred that their higher intuitive behavior is associated with their tendency to seek external inputs for decision making. They scan the advices through intuition.

## 5.2.3.5 Variation in Avoidant DMS

Junior-level executives are more avoidant than Middle-level, who in turn are more avoidant than Senior-level. It indicates that lack of experience leads to a tendency to rescue decision making tasks until the pressure is on or to delay decision whenever possible. With rising experience, the avoidance gets reduced. For e.g. being junior the person often avoids making decisions, then on entering in middle level the avoidance lessens but still remains comparatively higher than being senior. Earlier also the Indian executives being younger and inexperienced were found to be more avoidant (Verma *et al.*, 2012d). Relating this finding with those pertaining to Dependent style reveals that having doubts about self decision making ability (Salo and Allwood, 2011), the new joiners or less experienced (junior) executives avoid making decisions and depend on others for their decisions. Due to the same reason, middle level executives have higher Dependent and Avoidant DMS than seniors. The seniors on the other hand, are mature enough not to depend on others and avoid decisions. Avoidant style has been associated with negative features (Parker *et al.*, 2007). But being incompetent it is better to avoid important decisions, and seek advices from seniors. If so, then the extra time for taking advices reflect strive for avoiding any negative consequences (Verma *et al.*, 2012d).

Moreover, the Avoidant DMS is observed higher in Private sector than Public sector. It attributes that delays are more in the Private sector. It is perhaps due to the fact that the majority of the Public sector executives are from Senior levels, and as discussed the avoidance

reduces with rising experience levels. In other words, majority of Private sector executives being from Junior and Middle levels have higher Avoidant style as compared to the Public sector executives.

## 5.2.3.6 Variation in Overall GDMS

The variation in whole GDMS is drawn on the above discussion and results reveal that DMS varies across industries (specifically across IT-ITES and Service), experience levels (majorly across junior and seniors) and sector (Public and Private). From IT-ITES to Service (in the study sample) there is a huge change from virtual (online) to personal (face to face) work environments. Likewise, senior executives are working on senior profiles, deal with strategic and important decisions, have rich work experience as compared to juniors who work on routine position profiles and are less experienced. Similarly, the Public sector executives are less concerned about their decision making consequences than the Private sector executives. Hence the nature of jobs and work setting is bringing variation across industries, sector and experience levels.

# **5.3 ACCOMPLISHMENT OF OBJECTIVE 2 (O2)**

# O2: To study the need pattern of executives in select Indian Organizations.

#### 5.3.1 Average NP

Highest achievement motive (nAch) is revealed by Indian executives. This in line with Kunnanatt (2008) who on a sample of Indian banking sector executives found that Indian executives have highest achievement motivation. Executives with high nAch are high result producers. The nAch is found highest possibly because India has undergone tremendous developmental changes with Liberalization, Privatization and Globalization. Higher nAch attributes that the executives wish to always achieve success in their work, they wish to avail more and more responsibilities, they feel to perform better than their competitors and they firmly believe that ambitions bring the mind into full activity (Sanghi, 1998). It also attributes that the executives assume personal responsibility for the solution of tasks or problems (Lawson and Shen, 1998). Majority of the respondents were from manufacturing industry, therefore the results somehow complement the findings of Harrell and Stahl (1981) that high nAch is most suited to the profiles of sales and manufacturing. High nAch is always found associated with high performance, high organizational commitment and also attributed as

antecedent of prosocial behavior (Worthy, 1986; Salami, 2008; and Baruch *et al.*, 2004). However nAch more connects with individualistic career success (Andrew, 1967; McClelland, 1965 and Varga, 1975), but not always been the foremost symbol of personal fulfillment rather it has been contributing to society (Parker and Chusmir, 1991).

The nAch has been associated with success in entrepreneurship that ultimately contributes to national growth. Levenburg and Schwarz (2008) found that despite historically constrained entrepreneurship in India, the national mindset regarding entrepreneurship is seemed to have significantly positively shifted in recent years. It may argued that Indian executives have developed intrapreneurial and entrepreneurial orientation as reflected from India's current state of progressiveness, and this has confirmed the claim of McClelland (1961).

Next highest nPow reflects that Indian executives find it easy to lead groups and maintain discipline, they see themselves as better leaders, they prefer to have disciples who obey the rules, and they attain control through influencing the work behaviors for better performances. Being next to nAch, this need attributes associated positivity having power for the sake of good performance. Earlier also, in studies on Indian manufacturing and IT-ITES firms, the similar need pattern were observed where nAch was followed by nPow (for e.g. Verma *et al.*, 2012fg). High nPow may destroy relationships (Carpenter *et al.*, 2009), but power motive also refers to a desire to be strong and influential and to have an impact (McClelland and Burnham, 1976). Hence, it is not always dictatorial. In this study, the nPow correlated with nAch (discussed in next sub section) and hence it can be said that the executives are ambitious to perform with establishing control on their surroundings.

Next highest nAff reflects the group orientation of Indian executives. They keep in close touch with the doings and interests of friends and coworkers, they are attached to friends/coworkers, they hate staying alone and make more friends (Sanghi, 1998). Winter (2002) noted that nAff should be low and nAch should be high for better performance, however in our study, the nAff is found moderate 60.33% and nAch is found high 86.35%. Such moderate nAff is expected from a collectivist society like India, where people are more family and group oriented. They have a drive to relate to people on a social basis. Affiliation motive is the tendency to have a positive relationship with other people and the establishment and maintenance or restoration of the same.

Least out of all but considerable nSec (57.66%) is pointing that executives are concerned for future security and maintaining their social prestige, they want to make friendship with whom they feel secure, they want to ensure financial security and accumulated savings, and they have a slight tension of losing their jobs. Higher nSec is however associated with lower performance. But the low nSec (lower compared to all other needs) attributes that the executives are concerned for maintaining and sustaining their current existence. Most of the respondents are from the Private sector where the jobs are not secured and therefore the tension of losing their jobs is reflected in their motive pattern. Moreover, the presence of 57.66% nSec can be associated with the dynamic economic environment, where retrenchments, layoff, salary cuts are prevalent. In addition to this, the performance oriented rewards make people suspect their own ability to perform. It can be inferred that Indian executives have nSec due to the recession faced by Indian Economy in the recent past (2008). The global multidimensional conditions determine the form and quality of action taken by the corporations in a fully multifaceted and complex environment (Gurol, 2008). During recession many people were retrenched in the name of cost cutting, perhaps the same could have brought that much insecurity amongst the respondents.

# 5.3.2 Correlation amongst Motives/Needs

The correlation amongst the needs affirm the overlap among the needs. It also provides evidence that a baggage of motives is possessed by individuals (Gomes, 2011, Greenstein, 2000, Sanghi, 1998). Here, the positive correlation amongst all the needs attribute that executives have an association in their motivational pattern. Achievement and power motive correlate to symbolize that Indian executives are concerned for orderliness, have a desire to be and stay informed, and have an urge to monitor and take corrective actions. Their nAch is driving them to have control on uncertainties and such control orientation relates their nAch with nPow. The control has significance for both achievement motivation and power motivation (Winter, 2010). The difference is that achievement motivated people mainly focus on excellence or better performance and thus controlling other people is important only if required to reach that goal, else not. But power-motivated people have an ultimate goal of controlling others' behaviors.

The correlation of nAch and nAff shows that Indian executives perform better when complimented with co-operation and their favorable attitudes. This indicates that the Indian concept of achievement is multidimensional and is different from western countries, for e.g. Indian people include family and sibling's success in their own (Agarwal and Misra, 1986). In earlier researches also, the risk taking attitudes and achievement motivation of Indian managers was found to be culturally different from Japanese and US managers, and Indians were found to have more in group identification in the form of collectivism irrespective of compulsion of such membership (Orpen, 1983; Verma, 1985). Hence it can be inferred that nAff is the source of nAch for Indian executives.

The positive association of nSec and nAch indicates that individual with high nAch always have a big concern for maintaining their success and hence they acquire a security motive (nSec) against loss of their performance (Verma *et al.*, 2012f). Likewise, nSec and nPow correlate to reflect that executives' nPow helps them to maintain themselves in influencing and strong positions, which in turn raises a concern for maintenance of their dignity (social prestige), command as well as importance. The positive association of nSec and nAff indicates that nSec may increase due to high nAff, as social contacts are sometimes the weakness of individuals and lack of associations may cause panic of losing social prestige thereby increasing social security concerns (Baumeister and Leary, 1995). Thus, the positive noticeable correlation of nSec with the nAch, nPow and nAff attributes a fear of losing the current level of achievements, power and social contacts (Verma *et al.*, 2012g).

The positive association of nAff with nAch and nPow indicates that though the nAff in managerial positions may be disadvantageous (Carpenter *et al.*, 2009), but being positively associated with nAch and nPow, it attributes that executives prefer to have good social contacts for the sake of performing well and commanding accurately (Verma *et al.*, 2012f). Christopher (1999) also has similar illustration that achievement and power needs are rooted in social patterns.

# 5.3.3 Variation in Motives/Needs

The nAch is higher in Manufacturing industry than the Service industry. This perhaps is because the jobs in manufacturing are output oriented and easily quantifiable. Here, the rewards and perks are clearly accomplishable through specific efforts in the right direction. Thus, the executives of such industries are more performance oriented with clarity about their targets. Harrell and Stahl (1981) also observed that individuals with high nAch are well suited to position profiles relevant to sales and manufacturing where there are explicit goals, feedback is immediately available, and their effort often leads to success. Hence, Indian manufacturing executives have displayed higher nAch. Whereas in the Service industry, the quality of customer service usually becomes the source of performance evaluation, which is usually a subjective issue influenced by assessor's bias. Thus the nAch of service executives as compared to manufacturing executives is low.

The security motive is found higher in executives of Junior-level as compared to Senior-level and Middle-level as compared to Senior-level. This is somehow logical enough that the new joinees (Junio-level) are much more concerned about the security of their career/job, for accumulation of bank balance, for having a secured future, and also for maintaining their jobs. As compared to Senior-level, the Middle-level executives have more working years left and thus they seek better social prestige and earn (respect and money) as much as possible in remaining career years. Hence there is a vast difference in the security motives of Junior and Senior-level executives.

## 5.4 ACCOMPLISHMENT OF OBJECTIVE 3 (O3)

#### O3: To study the team effectiveness of executives in select Indian Organizations.

#### 5.4.1 Average TE

# 5.4.1.1 Team Functioning

On an average, the Indian executives have revealed considerable levels of team functioning (68.27%). Their team function (Volmer and Sonnentag, 2011) is towards the higher side, but it still has scope for further improvements. To discuss ahead, the reported levels of functioning are due to supportiveness towards each other when required, their belief in team strength, their voluntary help exchange gestures, their open discussions on issues, their non hesitation in asking for helps, their tendency to generate alternative solutions for problems, their division of group tasks, their non ignorance of concern/views of others, their non hesitation in decision making, their supportiveness for group decisions as well as their expression of differences. It is in congruence to Singh and Antony (2005), who also reported the presence of higher

cooperativeness, trust and a high level of contribution among the Indian industry executives. It is somehow also in line with Huckman *et al.* (2009) who concluded that familiarity (number of times a team member works with other team member) enhances performance of Indian firms.

Specifically, there is a need of back up support for group decisions and executives must express the differences openly to increase functioning levels. Possibly, the perceptions of respondents regarding these two survey items would be contradictory to their connotation, therefore most of the executives perceived them as not at all true. In earlier studies, the average functioning levels have been found at 75.3% (on 50 Indian executives from public and private sector, Verma *et al.*, 2011a), 67.77% (on 128 Indian executives from public and private sector, Verma *et al.*, 2012a) etc. Hence comparatively in the current study, the functioning has been low perhaps due to the varied nature participants in the study. Their perceptions were not somehow alike.

Highest amongst the constituents of functioning levels is collaboration (71%), then is cohesion (68.5%) and the lowest is of confrontation (65.37%). Though collaboration of executives is comparatively higher but much greater levels of collaboration are still attainable. Collaboration also attributes knowledge sharing, coordination, negotiation etc. (Roschelle and Teaseley, 1995; D'Armour et al., 2005; Hanson et al., 2000). In addition to helping each other, the executives must practice peer learning and knowledge sharing to further enhance their collaboration. The cohesion upto a considerable level is attained through support for team function and trust in the team. Cohesion brings an interpersonal attraction, sharing, interdependence, belongingness and trust, which is the most important thing for smooth team functioning (Mickan and Rodger, 2000; Beal et al., 2003; Paulus and Brown, 2007). Thus, the cohesion of Indian executives has further scope to improve and contribute more towards team functioning and ultimately towards TE. In an earlier study, the confrontation was found to be highest amongst the three (Verma et al., 2011a). However, in the current study, the lack of expression of differences lowered the confrontation levels and the frequent and voluntary help exchanges increased the collaboration of executives. TF has lowered due to the low confrontation. It affirms that in Asian countries personal relations take precedence over the task and thus open conflict is avoided (Hartijasti, 2010). In a recent study in Indonesia (an Asian country), Cahyono and Hartijasti (2012) reported that managing conflict with cooperative and confirmative approaches reflects effectiveness, while combining competitive and avoidance approaches for conflict management indicates ineffectiveness. The procedures and actions of productive conflict resolution result in problem solving facilitation, increased cohesiveness, alternative position exploration, increased member involvement and enhanced decision-making process (Capozzoli, 1995). Thus to enhance the confrontation, executives are required to express their differences. Confrontation also symbolizes the information-processing capabilities, divergent thinking as well as mutually shared cognitions (Jehn and Mannix, 2001; Jehn and Chatman, 2000; Kirschner, 2006). Hence higher confrontation can also be attained through brainstorming sessions, idea sharing as well as problem solving exercises. This will contribute towards better team functioning and higher TE.

#### 5.4.1.2 Team Empowerment

On an average basis, executives have perceived team empowerment towards the higher level (67.86%). It means that they consider themselves this much empowered to dispose off their duties as per their own ways but have associated liability with the same. The obtained levels of empowerment have much scope for improvement. A firm has to change the culture of the workplace in a way that empowers people as empowered professional with appropriate expertise may drive the firm to the top place in the world market (Shee and Pathak, 2006). As per the findings, the executives agree mostly that they are clear about their tasks and roles and they know how to accomplish their tasks. Thus, the highest constituent towards their empowerment perception is the task clarity. It may be deduced that Indian executives have high empowerment with enough task clarity. The team performance increases through task clarity (Mohammed and Dumville, 2001). Task clarity is the foremost and fundamental activity (Savelsbergh et al., 2010) as it steers the executives in the specified direction (Schweiger et al., 2003). Most executives also firmly agree that they have abundant arrangements for measurement of their performance and freedom to decide and adopt ways of working. Hence next to task clarity, the accountability contributes towards the team empowerment of Indian executives. Accountability is an important empowerment dimension (Cunningham et al., 1996) and it denotes a kind of monitoring and feedback as well as performance and achievement tracking (Marx and Squintani, 2009; Carpenter et al., 2006; Asproni, 2004; Pareek 2002b).

Furthermore, there is agreement on the availability of enough competent human resources. The next contributor towards the empowerment (task function) is the support levels available to the executives, but still there is a possibility for improvement. The support here is in terms of material and human resources. Support also symbolizes the contextual favorableness (Ross et al., 2008; Doolen et al., 2006) and freedom for experimentation like trying new ideas and innovation (Sudhakar et al., 2011). Thus to further enhance the support levels of executives, such elements should be enhanced alongwith the resource adequacy. The least contribution towards empowerment dimension is of autonomy. Executives accept that they perform the assignments but also decide their priorities. However, the perceptions are much varied on this aspect as equal distribution of agreements and disagreements are observed. Executives have lack of autonomy (63.13% only) which is in line with earlier findings of Verma et al. (2011ab) and Verma et al. (2012a). According to Yang and Choi (2009), autonomy is an important empowerment component, it brings a freedom to schedule the work and decide own pace of working (Medcoff, 1989). Managers in the developing countries like India need to create a work place culture which fosters autonomy, risk taking and innovativeness (Lee et al., 2011). Ahearne et al. (2009) have also advocated the importance of autonomy to free up the team members to do their tasks more efficiently. The highest task clarity and least autonomy appear contradictory and the two factors need to be increased in equal proportions (Verma et al., 2011a). Without autonomy the performance of even clear tasks will be hindered. Autonomy creates a kind of involvement (Arshadi, 2010) and hence it must be improved for better empowerment. Not only Autonomy, but also the Support (66.06%) have lowered the team empowerment of Indian executives. This reflects that executives experience constraints while performing their tasks and hence they feel themselves less empowered. Moreover, the high accountability (68.06%) compared to low autonomy and support levels point out the discrepancy in the empowerment process in the firms. Proportionate resources and freedom levels are required to fetch the real accountability from the executives. Contradictory to the current findings, in earlier studies on Indian executives, the empowerment was found higher as compared to functioning levels (for e.g. Verma et al., 2011a and Verma et al., 2012a). But, the team functions are additional layers to task functions and therefore both are important for enhancing TE.

# 5.4.1.3 Team Effectiveness

On average, TE of Indian executives comes out to be 68.04% which is considerable. Earlier the studies on Indian executives have revealed better than this level of TE for e.g. 76.5% (Verma *et al.*, 2011a) and 69.43% (Verma *et al.*, 2012a). Hence the possibility of an increase in TE exists. However unlike previous researches, here the nature of participating firms is varied and representation of Private sector firms is higher. It could be said that Indian executives have redundant autonomy and confrontation which actually has lessened their TE. As mentioned earlier that both team and task functions i.e. dimension of team functioning and team empowerment, are needed to be improved for further increasing TE levels of executives. Organizations should render more autonomy and in turn encourage the executives to exhibit their best performance to ultimately enrich the effectiveness of their organizational teams. Here, TE can be increased through increasing the autonomy, confrontation, support, cohesion, and other less scored components. The standard deviation of TE is found higher possibly due to the heterogeneity in the sample of the study and it can be said that being from distinct domains, the executives perceived their TE differently.

## 5.4.2 Correlation amongst TE, Team Functions and Task Functions

Team and task functions have mutual reinforcements (Volmer and Sonnentag, 2011) and both lead to TE. Hence the correlation amongst the three (team functioning, empowerment and effectiveness) is obvious and expected. The obtained high positive correlations between TE and its dimensions suggest the conceptual overlap between the constituents of TE (Verma *et al.*, 2012a). This can be put forward as, when executives have a smooth functioning, then they perceive themselves highly empowered. Alternatively, being highly empowered, the executives reveal better functioning aspects like high cohesiveness, collaboration and confrontation.

#### 5.4.3 Variation in TE Constituents

# 5.4.3.1 Variation in Team Functioning

Noticeable significant variations in the team and task functions have been observed in the current study. The team functioning is found higher in PME (Power, Mining and Exploration) industry as compared to the Service industry. The participants from PME are mostly from Public sector. The nature of their task incorporates large scale project handling where all the 143

profiles are interwoven pertaining to a single project for which the firm is accountable. Big power generation, Mining and Exploration firms require higher cohesion, collaboration and confrontation for the sake of maintenance of coordination between demand and supply. Perhaps due to this reason, the team function is obtained higher in PME. In Service sector, the output usually is in chunks with small operational and executive functions leading towards the achievement of the firm's objectives. Like PME, here the overproduction/underproduction is not a panic or concern. Hence, the functioning attributes of cohesiveness, collaboration and confrontation are comparatively lower. Moreover, the variation of functioning levels across these two industries is entirely subject to the nature of tasks.

# 5.4.3.2 Variation in Team Empowerment

Senior-level executives reveal significantly higher empowerment perceptions than Junior-level executives. The seniors with high work tenure and experience have higher empowerment and thus they attribute themselves more empowered. Juniors having only less than 5 years of experience actually lack empowerment perception. They consider themselves less empowered and it is justifiable too. Experienced executives are more empowered. It is perhaps because being highly empowered, the less experienced executives may misuse their autonomy and resources, while the high experienced are mature enough to fruitfully utilize their empowerment and authority. Perhaps therefore, the significant difference in empowerment levels exists between Senior-level, Middle-level and Junior-level executives (Verma *et al.*, 2012a).

The executives of Private sector have revealed higher empowerment than those of Public sector. Despite most executives of Public sector were from senior and middle levels, the Private sector's team empowerment is found higher. This is perhaps due to higher representation of Private sector in the current study. Furthermore, the empowerment is an essentiality in all types of jobs and it is most essential where the performance of an organization is the ultimate goal for executives. In other words, the Private sector executives work for their own survival as well as for their firm's betterment against competitors. On the other hand, the job security and privileges in Public sector firms don't put any constraints like attaining at least a minimum performance level. Hence, such less accountable Public sector executives don't compulsorily perform well. Their lack of accountability and unimportant task clarity, support as well as

autonomy makes them perceive themselves less empowered. Whereas, the private sector executives are eager to be empowered enough to best perform their duties and when they receive enough empowerment, they also demonstrate the same in their deeds as well as in their perceptions.

## 5.4.3.3 Variation in TE

The variation in TE is similar to that of the variation in team functioning i.e. TE is found to vary across PME and service industry with the higher mean of PME. This could be possibly due to the higher levels of team functioning that contributed towards the aggregate TE scores.

# 5.5 ACCOMPLISHMENT OF OBJECTIVE 4 (O4a, O4b, O4)

O4a: To study the general decision making style as predictor of team effectiveness.

O4b: To study the need pattern as predictor of team effectiveness.

O4: To study general decision making style and need pattern as predictors of team effectiveness.

# 5.5.1 Aggregate Sample Analysis

# 5.5.1.1 GDMS as predictor of TE in aggregate sample

GDMS accounts for 18% significant variance in TE over and above the control variables. Only Rational and Avoidant styles have been observed as significant predictors of TE. As per the results, Rational style enhances TE, while Avoidance degrades the TE. It indicates that TE improves through the decisions made after development of alternatives and calculations of consequences to resolve the involved uncertainties (Simon, 1979). Recently Chauhan (2010) observed that Indian executives (Service and Manufacturing Industries) have a higher tolerance for ambiguity which enhances their effectiveness. Such a tolerance contributes towards their capability to deal with chunks of information and taking right decision. Possibly therefore, the rational approach of the executives (manufacturing, service, telecom, IT-ITES and PME) is observed to improve their TE. The negative association of Rational and Avoidant DMS in the present study further suggests that executives are not maximizing and delaying, rather vigilant and tolerant for ambiguities. While the rationality enhances TE, the avoidance causes delay in completion of tasks and goal achievements. Such avoidance creates a bulk of pendency. Any organizational team cannot function effectively if the members are avoidant. Our results are somehow in line with the arguments of Parker *et al.* (2007) that too much avoidance reduces the effectiveness. Therefore it is advisable to remove the Avoidant style from decision making behaviors of team members. Members should be competent and authorized enough to take their decisions well in time. Decisions are avoided when people are asked to justify them, when options are similar in attractiveness, and when there is a large number of options to consider (Brooks, 2011). Indecision (a condition when managers avoid decisions) is therefore justifiable sometimes. However, in the current research, the negative association of avoidant DMS with TE and its negative correlation with rational style symbolize that the prevailing avoidance is not justifiable or reasonable. No association of the rest three styles (Intuitive, Dependent, Spontaneous) with TE indicates that perhaps the rest other styles bear no significance for effective team work. This finding corroborates with Russ *et al.* (1996) who advocated that Intuitive, Dependent and Spontaneous DMS have no effect, while Rational style (+ve) and Avoidant style (-ve) have effect on performance.

# 5.5.1.2 NP as predictor of TE in aggregate sample

NP accounts for 7.5% significant variance in TE over and above the control variables. All the needs/secondary motives are observed as significant predictors of TE. This is somehow in line with Shalley *et al.* (2009) who posited that the psychological needs of employees can be critical in determining their response to their work context. The nSec negatively affects TE, while nAff, nPow and nAch have a positive impact on TE. As per the results, high achievement, affiliation and power orientation of members renders higher TE.

Executives with higher affiliation motive are more contributory towards better team functions as well as the task functions because nAff is a key to team work (Fiol and O'Connor, 2005; Van der Vegt and Bunderson, 2005 etc.). Synonymous to identification, the nAff symbolizes the tendency of individuals to identify themselves with the group (Solansky, 2011; Desivilya and Eizen, 2005 etc.). The finding suggests that workers have social needs of being in contact with each other and this need is met by favorable sharing climate (Agarwal and Kapse, 2010). This social orientation or affiliation motive predicts their TE due to the existing sharing climate in Indian organizational teams. This provides support to the finding of Park *et al.* (2011) that

Indians are more behavior oriented (more affiliating) that contributes positively towards their performance.

The nAch gauge better performance (Kunnanatt, 2008), prosocial behavior (Baruch *et al.*, 2004), commitment and work focus (Salami, 2008) as well as psychological contracts (Lee, 2009). Executives with high nAch feel themselves more responsible and this tendency adds to their TE. Such executives are careful in evaluating the possibilities and formulating strategies with attainable ends (Entrialgo *et al.*, 2000). Thus having higher achievement motive, the executives not only positively contributes towards the task functions, but also act well in team functions and ultimately they enhance their TE. This finding is congruent to a number of prior researchers. Xenikou and Simosi (2006) accounted that achievement-oriented executives reflect an emphasis on being effective through task organization in value and practice, goal setting, experimentation etc. Also, Wood and Vilkinas (2004) observed that the achievement-motivated executives were humanistic and positive in their dealings and outlook.

While predicting TE through only NP, the role of power motive is significantly positive. This observation is in contrast to Dhar et al. (1999) who proposed that the behavior focused on gaining control or power is the result of Machiavellian philosophy and such a behavior retards TE. In current study, it is interesting that nPow positively add towards TE but beyond the GDMS variable. Asian organizations have high power distance and with hierarchical and authoritarian manner, the employees are less likely to be involved in decision making (Hartijasti, 2010). Perhaps due to the reason, the power motive makes the executives influencing and affect TE beyond decision making style. However, this motive alongwith GDMS has no prediction (β not significant) towards TE (dicussed later). Further to discuss, the Power motive relates to control and influence (Frieze and Boneva, 2001), managerial success (Winter, 2002), work focus (Lilly et al., 2006), as well as goal commitment (Sandalgaard et al., 2011). Thus it means that having higher nPow the executives are more focused, controlling and influencing. Such qualities make them successful and their teams effective. Power should be exercised on behalf of the institution. Executives with institutional power prove to be more successful in creating an effective work climate, making the subordinates responsible, creating high morale, developing a great sense of organizational clarity and team spirit (McClelland and Burnham, 1976). In current research also, the nPow of the executives is institutional (not coercive/personal) and therefore it seems to enhance their TE.

The finding suggests that lowering insecurities (i.e. low nSec) leads to better TE. Security is one of the principles of Quality of Work Life (QWL) and it suggests that to improve the levels of effectiveness, the executives must be provided with adequate well being, excellent working conditions and the insecurity free working environment. Banerjee *et al.* (2011) also obtained that QWL inclusive of security leads to organizational effectiveness. The nSec indicates executives' high concern for status and social prestige (Abu Elanain, 2009), self and family safety (Abdulla *et al.*, 2011), job security (Sahu, 2009) and financial security (Ahmad and Schroeder, 2003). Insecure executives (those having high nSec) are panicked and therefore they are not able to contribute either towards team function or towards the task functions. This reduces their TE. It signifies that for enhancing TE, the nSec of the members should be lower. Hence, the organizations must care for the security needs of its employees while designing their strategic approaches because the insecurity generated out of changing scenario may lead to undesired consequences. The Job security and higher income still appear important to employees for their maintenance and perhaps due to the same reason the health benefits are being accepted at workplace to lessen safety concerns of employees (Sahu, 2009).

# 5.5.1.3 GDMS and NP as predictors of TE in aggregate sample

When the constituents of both GDMS and NP are entered simultaneously as predictors in the regression analysis, the results reveal that despite weakened coefficients, the Rational DMS positively predicts/impacts TE, Avoidant DMS negatively predicts/impacts TE, nSec negatively predicts/impacts TE, and nAch and nAff positively predict/impact TE. The lack of significance of the regression coefficients of rest styles and nPow attributes them inconsiderable.

Amongst the two predictors, the GDMS has positive prediction towards TE through Rational style. This is somehow in line with Pathak and Patwardhan (2011) who ascertained that by way of their working style the job involved employees directly contribute to organizational effectiveness. Rational style attributes systematic and logical style usually exhibited by sincere and dedicated executives. Such working style leads to high TE. Further, GDMS has negative

prediction of TE through the Avoidant style. This negative effect is greater than even that of the positive effect of Rational style on TE. It means that rationality will not enhance TE that much as much the avoidance will degrade TE. Hence, it is must to prohibit avoidance to attain better TE. NP is another important predictor included in this regression analysis. Here, nSec is observed to lessen TE (as hypothesized), while the nAch and nAff contribute positively towards TE. Here again the negative impact of nSec is higher as compared to the positive impact of nAch and nAff. It means that nAch and nAff will not enhance TE that much as much the nSec will degrade TE. Hence Organizations must learn to manage nSec better to formulate effective teams. Affiliating executives are better in maintaining relationships and this tendency leads to higher TE. The achievement oriented executives are excellent performers and prosocial (as discussed earlier), hence this motive contributes towards higher TE. The nPow is no longer a significant predictor of TE. It reflects that perhaps the power motive is influential beyond the decision making approaches only. It is justifiable as well because influencing the decisions through power would increase biases and ultimately would not contribute towards betterment of TE. Looking at all the predictors simultaneously in the regression model, it suggests that avoidance is the most significant negative predictor and next is the nSec. Hence both these should be tackled well. Likewise, the Rational DMS is the foremost positive predictor of TE, then are the nAff and nAch. The three may lead to higher TE and must be managed strategically to draw maximum benefits out of them. The explained variance by GDMS and NP in TE is 24.7% (adjusted  $R^2$  is 22.7%). It means 24.7% part of the TE is explained by these two predictor variables.

The discussion so far is from initial regression analysis i.e. the impact of GDMS and NP over and above CV (control variables). It considered the additional variance caused by the two in TE. Having noticed the significant regression coefficients of CV towards TE, the analysis has been extended to Industry-wise, Sector-wise and Experience-level wise expecting the differences in predictions.

# 5.5.2 Industry-wise Analysis

#### 5.5.2.1 GDMS as predictor of TE in different industries

IT-ITES industry has significant positive impact of Rational and Dependent DMS on TE, while the Avoidant DMS seems to deteriorate the TE of executives. It suggests that the logical and systematic rational DMS mostly enhances their TE. Rational approaches need consideration of various options in terms of goals and to enhance the quality of decisions, the executives may take advices from coworkers. Thus fruitful dependence (as in case on IT-ITES) may add to TE. When the executives tend to rescue the decision making tasks, their ignorance causes a negative impact on TE. This is perhaps because despite rescuing, the liability of decision making still remains with the decision maker. In Manufacturing and PME industries also, the Avoidant style has negative and Rational style has a positive impact on TE. In Service and Telecom industries, only Avoidant style has negative impact on TE. It indicates that avoidance is detrimental to TE in Service and Telecom perhaps because it leads to annoyance and dissatisfaction of customers. This ultimately hampers the team and task functions.

## 5.5.2.2 NP as predictor of TE in different industries

In IT-ITES industry, only nSec is observed to negatively affect the TE. Instability of executives hampers the potential development of the industry. Present findings of higher security motives of IT-ITES executives and its negative impact on TE is complementing the view of Shee and Pathak (2006) that despite the tremendous growth of software industry, the instability of the workforce remains a big threat. The higher security motive of IT-ITES executives reflects in their performance which in turn makes their TE vulnerable. In Manufacturing industry also, the nSec of executives tends to lessen their TE, while their nAch enhances their TE. The achievement orientation is associated with production based nature of the manufacturing firms. Here the targets often require the achievement zeal in the executives.

In PME industry, NP as predictor has positive association of nPow with TE, but a negative association of nAch with TE is also observed here. The nPow has positive impact possibly because with enough certainty about jobs, status, finances and social esteem, the only motive that drives such executive is the nPow. They have the influencing, controlling, directing and disciplining intentions that enhance their TE. As their nPow is more prominent, perhaps their nAch is individualistic (self centered) not cooperative. Therefore their nAch tends to lower their TE. In Service and Telecom industries, none of the secondary motive has significant contribution and prediction towards TE.

# 5.5.2.3 GDMS and NP as predictors of TE in different industries

In IT-ITES Industry, the Avoidant DMS negatively impacts TE with the highest effect ( $\beta$  is high). It again point that Avoidant DMS must be restricted for betterment of TE. The positive effect of Rational style on TE indicates that the rational approach of IT-ITES executives renders higher TE. Additionally, the positive impact of Dependent style is observed to have increased, when both GDMS and NP are the predictors. It posits that good inputs from coworkers are needed while decision making in the IT-ITES firms to achieve better results. Such dependence would enhance their TE. After Avoidant DMS, the nSec is having next higher negative impact on their TE. Hence, it is important to provide security to IT-ITES executives to fetch higher team effectiveness. Turnover is the major problem in IT-ITES/software industry and the social-psychological processes can be focused for predicting employee's intention to quit (Bhal and Gulati, 2006). The finding (that the psychological security motive is a significant reason for lessening executives' perceived TE) adds support to the notion that employees' psychological and social states influence their commitment towards the organization as well as their performance (Bhal and Gulati, 2006). Though NP as the only predictor doesn't have significant predictive association of nAch with TE, yet alongwith the GDMS, the nAch has a positive impact on TE. Perhaps the reason is that nAch of IT-ITES executives have no positive impact on their TE unless this motive is channelized for decision making behaviors. Global information infrastructure players like EMC Corporation plans to increase its investment over US\$ 2.01 billion in India by 2014. Also, with an expected 40 % revenue growth, Cognizant (a well known IT Firm) will invest more than US\$ 500 million till 2014 to expand its campuses to add over 8 million square feet to house over 55,000 employees. It will create additional software development and training facilities in special economic zones of India (Verma et al., 2012g). Having obtained the positive impact of nAch on TE, it can be said that the nAch of IT-ITES executives will add to convert future plans into actions. Moreover, through such big initiatives, the nSec will also get lowered thereby enhancing the TE. The GDMS and NP explain significant 24% variance in TE (adjusted  $R^2$  is 19.8%).

In Manufacturing Industry, the Rational DMS has positive and Avoidant DMS has negative impact on TE, but Dependent DMS has no positive prediction here. Manufacturing firms are concerned about all five forces (Porter 1980, 1985) operating in the industry and therefore, they seek an effective competitive strategy to achieve a sustainable competitive advantage (Rundh,

2011). The Indian Manufacturing industry is actively performing its part in the gross domestic products (GDP) of the country. For e.g. Reserve Bank of India stated that India needs to focus more on manufacturing in order to achieve more than 6.5% GDP growth (The Economic Times, 2012). Therefore, the executives in manufacturing industry are required to be systematic, logical, goal oriented, good in planning and good decision makers, and all such qualities are present in rational decision makers. The results thus attribute that the manufacturing firms should increase their Rational DMS and stop Avoidant approaches to enhance TE. NP as the only predictor of TE didn't have significant predictive association of nAff with TE, but alongwith GDMS, the nAff also has a positive impact on TE. The explanation for such findings can be that possibly the nAff of manufacturing executives is important only while taking decisions, where the concern and views of all have to be considered. Otherwise, the nAff doesn't add any fruits to their TE. Interestingly, the nSec is no more significant alongwith the GDMS. This is possibly because that only beyond decision making, the security motive of the executives negatively affects their TE. While during decision making, this motive diminishes and become unimportant. It may be deduced that in Manufacturing Industry, not nSec, but Achievement and Affiliation orientations of executives are associated with their decision making approaches to enhance their TE. The explained variance by GDMS and NP in TE is 25% (adjusted  $R^2$  is 21.9%).

In PME Industry, Rational DMS positively predicts TE and Avoidant DMS negatively impacts TE. Being indulged in big projects mostly associated with supplies of specific units to consumers and customers (e.g. Hydro power, thermal power, element mining, gas exploration etc.), the PME executives have to follow the proper guidelines and regulations. Such Rational style therefore leads to their better TE. The Avoidant style lessens the TE due to the associated bad effects of not being able to take decisions in time. Yet, majority of PME being from Public sector, the delays are usual. Such delays take on the form of negligence and hamper the TE. On the other hand, alongwith GDMS, none of the NP have any significant prediction of TE. This conceivably indicates that in a huge demand and supply based environment like PME, the executives' decision making behavior is not driven by their needs rather it depends on the prescribed procedure pertaining to specific situations. The explained variance by GDMS and NP in TE is 11.6% (adjusted R<sup>2</sup>), where the additions of NP doesn't cause any significant change (in F and R<sup>2</sup>).

In Service Industry, none of the GDMS and NP has significant beta coefficients towards the prediction of TE. However, the directions of the associations are in line with hypotheses except for nAff (i.e. a negative beta coefficient). The lack of significance doesn't provide any supporting argument for predictive associations of GDMS and NP with TE. The variance caused by both in TE is also not significant. In Telecom Industry, the NP has no significant prediction towards TE, but GDMS has. Only Avoidant DMS is found to negatively affect TE. It means that the Telecom Industry executives can enhance the TE if they control their avoidance.

#### 5.5.3 Sector-wise Analysis

# 5.5.3.1 GDMS as predictor of TE in Public and Private sector

In Public sector, Rational DMS has a positive, while the Dependent and Avoidant DMS have negative impact on TE. Rationality here is binding due to the constriction through procedural formalities in making important decisions. This systematic procedural decision making enhances TE. Moreover, here the Dependence on other position profiles is also unavoidable and henceforth, the delays/avoidance prevails. Such delays and enforced dependence lessen the TE. In Private sector, amongst all the styles, the Rational style positively and Avoidant style negatively impact TE. Here Dependent style has no significant effect. The avoidance might come due to much time needed in weighing and measuring various alternatives in order to make rational decisions. Rather than maximization (that cause delays), the rationality in Private sector must be driven by a satisficing approach wherein as and when an enough satisfying alternative is available, the search should be ceased (Bruine de Bruin *et al.*, 2007).

# 5.5.3.2 NP as predictor of TE in Public and Private sector

While considering only NP as predictor of TE, in Public sector, the nPow has a significant positive impact on TE. These executives remain in lifetime employment and hence they have established control, influences and power-position relationships. Thus this power orientation increases their TE. In Private sector, the nSec, nAff and nAch remain significant predictors of TE. Struggling for survival in the organization, the executives of Private sector remain concerned for future and other securities which in turn hamper their TE. However, their hard work, dedication and achievement orientation contribute towards enhancement of TE. Likewise, their identification with colleagues (i.e. nAff) also enhances the TE.

## 5.5.3.3 GDMS and NP as predictors of TE in Public and Private Sector

In Public Sector, while predicting TE through both GDMS and NP, the Rational DMS, Avoidant DMS, Dependent DMS and nPow remain significant predictors. Despite a diminished coefficient, the nPow has the highest positive effect amongst all the predictors. As discussed earlier, in Public sector, the decisions must be taken as per the stated clauses and sections in the rule books. The executives are thus habitual to refer to the rules for even small matters. Such established norms and rules serve as guideline and the fruitful end results of that rationality positively affect the TE. Moreover, the Public sector working has delays in movement of file from one level to another and due to such high forward and backward dependence, the TE gets reduced. This dependence is not for the sake of fetching best inputs for better decision; rather it is inescapable due to a procedural system of working. Regular meetings, conferences, committees are common in almost every public sector firm and therefore the decision makers are much dependent on others. The delays or avoidance is also attributable to the interwoven procedural formalities. The nPow is the foremost positive predictor of TE. Perhaps it is due to not much importance of the rest of the motives in the Public sector. The executives are only driven by the power motive and they keep influencing/dominating the decisions and people. Power motive (unless coerced) is acceptable in the work culture of the Indian Public sector and therefore it positively contributes towards the TE. The significant explained variance by GDMS and NP in TE is 37.7% (adjusted R<sup>2</sup>). The addition of NP to the regression analysis caused significant F and R<sup>2</sup> change.

In Private Sector, most prominent predictor is Avoidant DMS (-ve), then Rational DMS (+ve), then nSec (-ve), then nAch (+ve) and lastly the nAff (+ve). The significant variance accounted by GDMS and NP in TE is 21.2% (adjusted  $R^2$ = 19.7%). The results suggest that in the private sector to enhance the TE, the executives must be rational in their decision making approaches, and while deciding, they should possess nAch as well as nAff. There should to be a controlling authority to check that avoidance doesn't prevail and the firms shall address the high nSec. These results are similar to those of GDMS and NP as predictors of TE on an aggregate basis. This may be because the majority of the sample (476 out of 541) is from Private sector.

#### 5.5.4 Experience-level-wise Analysis

# 5.5.4.1 GDMS as predictor of TE in different level executives

Middle and Junior-level executives' rationality positively impact their TE, while their avoidance has negative impact on TE. Senior-level executives' avoidance is also observed to negatively affect the TE, while their rational style has no significant impact on TE. Perhaps the reason is that senior executives have enough experience which doesn't require deliberate rational approaches. They have an accumulated DMS developed over time, which is somehow not purely rational, intuitive or of a particular type, but a blended approach. They are not most avoidant but they have a tendency to decide at last moment or specifically when asked to give their verdict. But even such minimal avoidance degrades the TE. On the other hand, the junior and middle executives are comparatively more avoidant than seniors. For juniors, the avoidance is usually due to the lack of trust in self decision making ability. For middle executives, the avoidance is a form of postponing whenever possible (better to avoid than to decide). Anyhow, every type of avoidance causes delays and pendency. Therefore, the Avoidant styles reduce the TE. Moreover, the rational approaches of both junior and middle executives eradicate the chances of wrong decisions and thus render higher TE.

# 5.5.4.2 NP as predictor of TE in different level executives

The nSec of Junior and Middle-level executives negatively affects their TE. The nAff of Middle-level executives positively affects TE, while the nAch of Junior-level executives positively impacts TE. Perhaps the apprehension in initial career stage (for junior level executives) and the pressure in mid-career (for middle-level executives) make the executives tensed about job, finance, prestige and social security. Hence, such higher security motive decays their TE. Moreover, the new-joiners are enthusiastic enough to perform well and gain recognition in the organizations. The higher such motive symbolizes their nAch, which positively adds towards TE. The nAff tends to add to TE because at the stage of mid-career the executives have developed enough important work based contacts. They reap huge benefits from having such dense social network. This identification helps them in smooth team and task functions, and in turn enhances their TE. None of the needs of senior executives have any significant association with their TE.

# 5.5.4.3 GDMS and NP as predictors of TE in different level executives

Only the Avoidant DMS of Senior-level executives is observed to impact the TE. Here, none of the needs have significant predictions towards TE. The explained variance by both GDMS and NP in TE is 13.5%, however the addition of NP has not added any significant F and  $R^2$  change. In Middle-level executives, the significant variance accounted by GDMS and NP in TE is 24.3% (adjusted  $R^2$  is 20.8%). Here interestingly, only the nAff positively affects TE, while the Rational DMS positively and Avoidant DMS negatively impact TE. The nSec is no longer significant. Perhaps the affiliation motive of middle executives remain important during their decision making, while their nSec affect the TE beyond the decision making tasks only. This could be because the networking and identification augment the decision approaches to enhance their TE. In Junior-level executives, the significant variance accounted by GDMS and NP in TE is 22.1% (adjusted  $R^2$  is 19.2%). The pattern of prediction through both (GDMS and NP) remains the same as the prediction through GDMS and NP alone.

#### 5.5.5 Prediction of TE Constituents by GDMS and NP

# 5.5.5.1 GDMS as predictor of TE constituents (O4a)

Rational style positively affects cohesion, confrontation, collaboration and their constituting dimension of Team Functioning. It denotes that the interactional team processes are increased through rational decision making approach. Cho *et al.* (2008) in their study also reported that the rational people (those who have a rational strategy/approach) usually prefer FTF (face-to-face) communication to others under benevolent and informal/formal context. Perhaps due to the same reason the rational style is observed to have positive prediction towards team functioning (interactional functions). It attributes that higher the rational approach, higher will be the levels of the team functions. Rational style is socially desirable (Loo, 2000) and thus it enhances the adhesive cohesion and cooperative collaboration. The attitudes and approaches of problem solving and diversity or individual differences often give rise to conflicts among employees in organizational teams (Mishra *et al.*, 1999). Directing the conflict towards a constructive form (i.e. confrontation) is essential. As per the results, the rationality enhances confrontation and in turn leads to higher TE (Pareek, 2002b).

GDMS also has a significant contribution towards team empowerment ( $R^2 = 19.4\%$ , p<0.01). This to a certain extent corresponds with Gurol (2007) who addressed empowerment as an

important aspect of employee involvement programs which are a function of style of executive leaders or management. In the current study, the team empowerment tend to depend on the decision making style of executives. Specifically, Rational style is observed to positively affect the Team Empowerment constituents like task clarity, autonomy, support and accountability. It symbolizes that the task functions get enriched through rationality. Rational style denotes the decision making competence of adults (Bruine de Bruin *et al.*, 2007) and this mature behavior thus relates with enough task clarity (understanding about all the aspects) and accountability (assuming responsibility of the tasks). Rational executives are logical to utilize the resources properly and also they are capable to use autonomy correctly. Hence, rational approaches leads to higher perceived support (the adequacy of required resources) and autonomy (feeling free to perform in own ways). It can be said that the planful and goal oriented rational style contributes positively towards team functioning as well as team empowerment. It signifies that the efficient rational decision makers (Hablemitoglu and Yildrim, 2008) have higher effectiveness (Drucker, 1974).

Avoidant style negatively predicts team functioning and empowerment because the ignorant and irresponsible behavior create a disintegration amongst executives. Unnecessary avoidance hampers the smooth functioning and reduces effectiveness (Parker *et al.*, 2007). Avoidant executives are reluctant to adhere to the group and this tendency hampers their team functioning. Moreover, such executives are disinterested to perform the assigned task and this inclination constricts their roles and goals acquaintance, imperils their autonomy, detains their accountability and demolishes the support levels.

Intuitive style positively predicts collaboration, and Spontaneous style negatively predicts autonomy. As the intuition is concerned with feelings and emotions, consequently this DMS is found to enhance collaboration (voluntary help exchanges and positive response). Previously also the Intuitive DMS has been associated with positive outcome (for e.g. Crossley and Highhouse, 2005). Therefore, the result signifies that with an element of intuition, the collaboration in team rises (however the significance level of the finding is not so high). So far in the analysis, the Intuitive style didn't significantly predict TE and any of its constituents (except collaboration). It may be because the intuition is more or less an individualistic phenomenon which has not much to do with team aspects. The intuition is required for

creativity and innovation in teams and organization. However in this study, such elements have not been incorporated in team effectiveness conceptualization (Pareek, 2002b).

Spontaneous style is found to lessen the autonomy (freedom to decide own ways of working) component. Spontaneous executives don't properly utilize, rather exercise their autonomy at discretion. In other words, when executives decide impulsively then it signifies a kind of misuse of autonomy. Such propensities bring down the perceived autonomy levels in the organizational team. Somehow, the finding (negative impact of spontaneous style on autonomy component of TE) is in congruence with Loo (2000) that a negative correlation exists between spontaneous DMS and the performance/effectiveness of respondents. The current finding significant at p<0.05, however except this, so far the spontaneous style didn't predict TE and its constituents. This could be due to the fact that in the current study, the surveyed executives are not from extreme/turbulent profiles where the spontaneous decision making attributes effectiveness (Klein, 1993, 1997; Harrison and Horne, 2000).

#### **5.5.5.2 NP as predictor of TE constituents (O4b)**

Security motive is observed to negatively impact all TE constituents. It means when executives are in a state of tension and worry, then they have less attraction towards the team and thus have low cohesion, collaboration, confrontation and in turn low team functioning. Moreover, such restless executives often deteriorate the task functions, for e.g. they have lower clarity about roles and goals, they are less responsible and accountable, they have less control and autonomy, also they have lower perceived support. Lower nSec in a sense attributes quality of work life (QWL) where employees are satisfied and least panicked about their future. QWL of Indian employees was found to positively affect their well being and organizational commitment (Rathi *et al.*, 2011). The negative association of nSec with TE and its constituents is thus justified as when the employees have lower nSec, then they adhere to their team and perform their tasks better.

Achievement oriented executives wish to attain success and want to excel in their domain. Thus they have a higher confrontation due to the propensity to clarify their doubts and issues. Such executives also communicate and collaborate well to exhibit themselves. Their demonstration of prosocial behavior (Baruch *et al.*, 2004) in turn enhances their team functioning. Moreover,

the achievement oriented executives have enough task clarity and accountability because they have work focus and commitment (Salami, 2008; Lilly *et al.*, 2006). Therefore, their nAch also contributes positively towards the team empowerment.

Affiliation motive is associated with collectivism (Taggar and Haines, 2006; Pandey, 2004; Van der Vegt and Bunderson, 2005) and hence it is found to positively impact the team functions (cohesion and collaboration). Also, it has a positive impact on team empowerment. Since the people with nAff have identification with their team, they perceive themselves accountable, autonomous as well as clear about their roles and group goals. The results affirm that nAff is the key to teamwork (Fiol and O'Conner, 2005) as well as task work. Moreover, the current finding add to the conception of Solansky *et al.* (2011) that identification/nAff means peoples' self concept that they acknowledge and value being part of a team, and share norms and behavior codes that develop into a sense of cohesion and interdependency (Wheelan, 1994; Henry *et al.*, 1999).

The strong power motive may be expressed in a variety of socially acceptable forms of controlling and influencing others such as providing service and helping others (Frieze and Boneva, 2001; Winter, 1993). Perhaps therefore in the current study, nPow is observed positively impacting the collaboration, team functioning, support and team empowerment. It symbolizes that executives with higher power motive demonstrate helpful gestures, supportive attitude and perceive themselves highly empowered to bring about positive changes and exhibit a high goal commitment (Sandalgaard *et al.*, 2011). The power motive is thus affirmed to result into success in organization through enrichment of team and task functions.

## 5.5.5.3 GDMS and NP as predictors of TE constituents (O4)

In addition to independent effect, the GDMS and NP together also account for significant variance in TE constituents. Here also, the prediction is as earlier (positive through Rational DMS, nAch, nAff, nPow and negative through Avoidant DMS and nSec). However few changes are observed: nAff no longer predicts collaboration and the nPow also don't have prediction towards collaboration. Though NP as only predictor had association of nAff and nPow with collaboration (at p<0.10). It attributes that nAff and nPow enhance collaboration beyond the decision making tasks only, whereas during decision making, only nAch and nSec remain the dominant motives. Perhaps the reason for this is that the collaborative team function

requires fair and unbiased motives only, whereas, the nPow being influencing could bring in biases and the nAff being sympathetic might become a source of inefficiency. The power motive when considered alongwith GDMS remains a significant predictor of only the "support" component. It means that the nPow enhance the support levels. It can be justified as the power oriented individuals are capable of getting things done with optimum utilization of available resource within every sort of constraints (Frieze and Boneva, 2001) and thus the power orientation renders higher perceived levels of resource support.

### 5.5.6 Qualitative Support

During the period of September 2010 to July 2012, few training programs on team effectiveness were conducted in 4 Industrial organizations in Bhagwanpur Industrial Area of Roorkee in the state of Uttarakhand, India.

The responses on the study variables were taken from the participating executives during the training sessions. Based on the responses, the data were analyzed to make interpretations about the styles, needs and team effectiveness of executives in various organizations. Subsequently, on the basis of data analysis, the reports for improvement were prepared and furnished to the organizational unit heads.

One organizational-unit head showed keen interest in undertaking the study for the entire unit and therefore a project was undertaken from January 2011 to October 2011 in the XYZ Ltd. (converted name), a manufacturing firm. All on-roll executives in that unit were surveyed.

In the data analysis, few key observations were: Low nAch, lack of rational and logical thinking, lack of affiliation, high nSec, higher avoidance and procrastination, lower clarity, lower support and autonomy, lack of accountability, lack of cohesiveness, and lack of collaboration. The team functioning, team empowerment and team effectiveness were found to be lower in the unit.

The average levels of compositional attributes were observed to impact the team and task functions. Hence, recommendations were made to enhance nAch, nAff and Rational behaviors. It was also suggested to lessen the nSec and avoidance. A system of daily reporting was introduced wherein daily morning meetings were held. The agenda for each day was rationally decided and task clarity was emphasized. Employees were held accountable for their work and they were given adequate resource support and autonomy. Follow ups were pursued in the evening to track the delays and take corrective actions. The tasks were made challenging and interesting with the introduction of the element of recognition. Also, the weekly change of leadership was introduced. This markedly helped in identifying the styles of executives and their effectiveness. A change in work culture was also brought through the consent for informal and healthy chats. Rather than secretively gossiping, the employees now began to discuss their ideas and problems. This socialization helped in enhancing their identification and nAff. The efforts could raise a sense of belongingness in the employees. The employees were now driven by the achievement motive to perform better with all their hard work and efforts. They no longer avoided their tasks. They were no more insecure about losing prestige or about the uncertainty of future. They began to affiliate with their group and it in turn gave rise to cohesiveness, discussions, collaboration, cooperation, etc.

Regular meetings were held to discuss the progress and improvements in the unit. It was interesting to see that the team effectiveness levels were remarkably improved as measured through the perception of the Unit Head. In an interview, the Unit head said that now the executives actually had started to realize their accomplishments as a team work. There was higher cohesion, increased collaboration, much fruitful problem solving discussions (confrontation), enough task clarity, true sense of autonomy & accountability and also higher perceived support. The improvements in team functions and task functions were due to the enhancement of appropriate style and motives, as well as due to controlling the detrimental styles and motives of the executives. Subsequently, other surveyed Organizations also reported to have benefited from the survey results based on the training sessions. However, those firms at their own took appropriate measures to work upon the reported weak areas.

**Summary**: The significant coefficients of regression ( $\beta$ : beta coefficients) reflect the predictive association and affirm the importance of GDMS and NP for TE. The significance of R<sup>2</sup>, Adjusted R<sup>2</sup> and F Statistics provide considerable support to the GDMS and NP together and independently as predictors of TE. It emphasizes the importance of members' styles and motives for TE. The Multicollinearity diagnostic VIF (Variance Inflation Factor) affirms that

the independent (predictor) variables are not identical. The prediction of TE through GDMS and NP (together) has few interesting distinctions as compared to the prediction of TE through only GDMS and only NP. The case of XYZ Ltd. and benefit experiences of other firms (in the same industrial area) provides qualitative support to the framework of this research and point that TE research may focus new personality based variables to reveal novel facts.

Based on the training program survey data as well as on other online responses, a number of the research papers related to GDMS, NP and TE were written and published (Verma *et al.*, 2011ab, Verma *et al.*, 2012abcdefg). The publications also added towards the accomplishment of the objectives of this study and therefore were included in the discussion. The prediction of TE through the personality characteristics (cognitive styles and motivational needs) of executives provides support to the views of Jong *et al.* (2000) who propounded that personality and biographic characteristics are related to group processes and outcomes. Further, the findings also support the arguments of Mannix and Neale (2005) that personality characteristics of cognitive styles and motivational factors can be used in compositional researches pertaining to team performance and effectiveness. Moreover, the predictive association of the GDMS and NP with TE also support the aggregation of member characteristics (e.g. Mathieu *et al.*, 2008; Molleman, 2005) to diagnose TE.

### 5.6 OVERVIEW ON ACCOMPLISHMENT OF OBJECTIVE 5 (05)

## O5: To open new vistas of research

This objective is concerned with opening areas for future research through the current research. The study has diagnosed the prevailing motivational patterns and decision making approaches of Indian executives. So far, relating to the personality characteristics of the respondents, the question of "What" has been answered. New vistas of research have certainly been opened in promising ways with the obtained deeper and important facts about team effectiveness, team empowerment, team functioning, general decision making style and need pattern of Indian executives. Specifically, the areas for future research will be highlighted in the last chapter after the discussion of the implications and limitations of the research. Hence, this particular objective will be completely accomplished ahead.

### **5.7 CHAPTER SUMMARY**

This chapter from beginning to end presented the accomplishment of research objectives (O1, O2, O3 and O4) and while doing so, it also rendered the answers to the research questions ( $RQ_1$  to  $RQ_9$ ). It first incorporated the discussion on average GDMS, correlation amongst GDMS, variation in GDMS, average NP, correlation amongst motives/needs, variation in motives/needs, average TE (team functioning, team empowerment and team effectiveness) and variation in TE constituents (team functioning and team empowerment). Further it highlighted aggregate, industry-wise, sector-wise and experience level-wise analysis on GDMS alone as predictor of TE, NP alone as predictor of TE and GDMS and NP as predictors of TE. Afterwards the prediction of TE constituents (cohesion, confrontation, collaboration, team functioning, task clarity, autonomy support, accountability and team empowerment) was presented. Finally, the qualitative support and a brief idea about the accomplishment of objective 5 were discussed.

The executives are logical, systematic and planful. Thus they endorse rational approaches backed up by their own insights (intuition) and advices from co-workers. They sometimes decide quickly on the spur of the moment and rarely delay the decision making task. They wish to achieve success in their tasks and find it easy to lead and maintain discipline. Moreover, they identify with their co-workers and keep in touch with them. Their team effectiveness can further be improved through providing them with more autonomy, support and allowing confrontation within the team.

Observed variations in GDMS, NP and TE across the demographic attributes is due to the differences in perceptions of executives of different industries, genders, experience-levels, education levels and sectors. The variations are reasonable and logical. The predictive associations of styles and needs with TE are affirmed in the aggregate sample analysis as well as in industry wise, sector-wise and experience-level wise analysis.

Different industries (Manufacturing, IT-ITES, PME, Service and Telecom) have differences in the predictive associations due to their different nature of the works. Likewise due to the difference in work culture, in the Public sector, the nPow is important for TE, while in the Private sector, the other three motives are significant predictors. Levels of experiences are also observed to mark a variation in the predictive associations. The findings are justified through 163 relevant literature support. Moreover, the importance of DMS and motives for TE is explained through the case of a firm (XYZ Ltd.), which benefited through this research model.

# **CONCLUSION and IMPLICATIONS**

On the basis of literature, findings and discussion so far, this chapter purports to highlight the conclusions and implications of the study.

#### **6.1 CONCLUSION**

The present study was taken up for the executives in select Indian Organizations. It reports their general decision making style (GDMS), need pattern (NP) and team effectiveness (TE). Quality and effectiveness of decision making are of utmost importance for an organization in today's dynamic and competitive world of business (Mishra et al., 1999). In contrast to the previous researches on GDMS, working executives are the sample of this research. The executives were asked to respond their perceptions about themselves and their organizational teams. The findings indicate that Indian executives endorse Rational style in their decision making, along with this they also adopt Intuitive style as well as Dependent style (seeking advices and suggestions from others). There are minor Spontaneous and Avoidant tendencies as well in their decision making approaches. They are suggested to adopt outcome oriented rationality, experience based intuition, expert advices to depend upon, spontaneity as per the situation, and least avoidant approach if required (Verma et al., 2012d). The correlation amongst the five styles affirms that they are mutually inexclusive. Out of the four motives, the need for achievement (nAch) is found to be highest amongst the executives. The developing pace of India also requires high achievement oriented executives; however, there is a possibility to further increase the nAch. McClelland (1961) acclaimed that Indian economic growth is slow due to the lack of people with high nAch. Hence, the findings of current research ascertain the role of higher nAch in current pace of growth of Indian economy. The second highest need for power (nPow) and its correlation with nAch and nAff (need for affiliation) indicate the hidden motives of achievement and affiliation behind the power motive of executives. It ascertains that their nPow is institutional and social (i.e. not coercive). The next highest nAff reflects the collectivist orientation of executives. The nSec is comparatively least but still considerable (57.66%) reflecting the executives' vulnerability to uncertain and turbulent economic environment.

Highest task clarity followed by accountability is reported by the respondents, but at the same time the autonomy is least scored. Only task clarity and accountability are not sufficient enough to make executives perform better. They also need autonomy to perform well. The executives are advised to enhance autonomy and support levels to get better empowerment. Also they must improve confrontation to have a better team functioning. This way, the study also suggests ways to build effective teams by working on the reported weak areas. The variation in GDMS and NP indicate the requirement of paying attention to personal and contextual characteristics like experience level, sector, industry etc. In this direction, McGregor (1960) also posited that Management should have as a goal the development of the unique capacities and potentialities of each individual rather than having common objectives for all participants. Hence, action plans may be prepared to develop unique potentialities of employees.

Behavioral researches primarily focus on exploring the association amongst variables for e.g. Job involvement and organizational effectiveness (Pathak and Patwardhan, 2011); Quality of work life, psychological well- being and organizational commitment (Rathi et al., 2011); etc. TE researches have considered personality as predictor of TE but the constructs of needs and decision making styles have not been sought in any of the previous researches. Earlier, Dhar et al. (1999) examined personality variables- Self-esteem & Machiavellianism- as correlates of TE in Indian Service Industry. The novel contribution of the current study is the choice of unique predictor variables to predict Team Effectiveness. West et al. (2004) highlighted the critical research questions that teams should spot how we can work most effectively to accomplish tasks? and how optimal contributions to organizational performance can be made? Based on the mean value researches, in this study the individual scores on aggregate basis have been used to depict the predictive association of GDMS and NP with TE. Therefore, the dispersion of attributes has not been focused in the analysis. This study provides empirical evidence that GDMS and NP together as well as independently explain significant variance in TE. However, the variance explained by NP alone in TE is lower as compared to that by GDMS alone in TE. The study extends support to the findings of Dhar et al. (1999) that personality variables do affect TE.

Kaur (1993) propounded that in addition to the technological efficiency of an organization, its executives' approach to decision making which determine the effectiveness of that

organization. Rational style and needs for Achievement, Affiliation and Power have significant positive predictions towards TE. Avoidant style and need for security are observed as significantly detrimental to TE. Dependent style positively predicts TE of IT-ITES executives, while negatively predicts TE of Public sector executives. The impact of Intuitive style is positive and that of Spontaneous style is negative on TE, but not significant. A major part of TE still remains unexplained with the use of only GDMS or only NP or both (GDMS and NP) as predictors of TE. The reason could be that TE does not have only these two predictors. Many other variables might have prediction towards TE. The reason why GDMS and NP have been chosen as predictors is that these two are significantly unexplored personality attributes with respect to TE. This way this research extends the work on the concepts of Decision Making Styles, Motives and TE, and contributes towards the dearth of literature on the variables. It also provides significant implications for different stakeholders and suggests significant scope for future work.

#### **6.2 IMPLICATIONS**

The study bears following specific and generic implications:

- 1. Attention should be paid to reduce the avoidance, and the power motive must be institutional so that organization as a team gets benefited.
- 2. Security and safety usually are hygiene factors and should be essentially present to maintain no dissatisfaction level. This would lessen the nSec.
- 3. The identification of pattern of need may help in the appropriate placement of individuals where they perform willingly and outstandingly. Awareness about DMS may also help. In this regard Bhal and Ansari (2007) also state that as the leader assesses the motivation of each subordinate to offer different inducement depending on his/her motivation, consequently, the subordinates also volunteer to define their roles uniquely and assume responsibility. Corporations can select those candidates who are likely to be good executives. For e.g. the new entrants/candidates may undergo a selection test of need pattern and DMS.

- 4. Present environment is very demanding in terms of skills. The individuals too are expected to change according to the environment (Mishra *et al.*, 1999). Hence, it is recommended to study individual motives and styles time to time so as to gage the pace of environmental changes and suggest preferable orientations and styles.
- 5. Training programs can be organized for those already in executive positions to acquire job fit decision making approach and need profile to be more effective with more confidence.
- 6. The difference between a person's job requirements and his or her DMS and motivational patterns may help assess whether the person is in the right job or is a right candidate for promotion to another job or is likely to be able to adjust to fit the present position (McClelland and Burnham, 1976).
- 7. The importance of decision making behavior and motivational profiles could be taught to budding managers to ensure success in their professional lives. For e.g. person having nAch will be suited in Sales profile and high nPow individuals must be great in leadership profiles (McClelland and Burnham, 1976), while those with high nAff may be good in Human resource management and public relations profiles (Verma *et al.*, 2012g). This would in turn create the pool of correct human resources to the labor market and organizations.
- 8. The DMS and NP at the individual level can be analyzed to address the required transition in firms. Position wise GDMS and need pattern portfolio can be designed for organizations to have right recruitments and selections. This would help attain and sustain organizational excellence. The findings thus bear implications for the OD practitioners and consultants as well.
- 9. Advisably, higher empowerment may be enhanced through higher task clarity, autonomy, support and accountability. Most importantly the autonomy levels should be increased and higher instrumental support must be rendered. Higher functioning can be attained through more cohesion, confrontation and collaboration. Particularly the expression of differences (confrontation) for the sake of better functioning shall be promoted and cohesiveness must be improved. Higher TE will be attained through enhanced team functions and empowerment.

- 10. Rational DMS and need pattern of higher nAch and nAff would fetch better TE.
- 11. IT-ITES (Information Technology and IT Enabled Services) executives are advised to follow the rational and dependent style and to possess higher nAch. They should control avoidance and their security motive to have higher TE.
- 12. Manufacturing executives are suggested to follow the rational style and to possess affiliation and achievement motive for enhancing their TE. During decision making, the nAch would help them enhance the TE. Their nSec and Avoidant style should be lower.
- 13. PME (Power, Mining and Exploration) executives are recommended to follow rational style and to lower avoidant style. While beyond the decision making situations, they can enhance their TE through having higher nPow and lower nAch.
- 14. To enhance TE, the Service executives should reduce their avoidant style unless it is required.
- 15. Telecom executives should advisably lower their avoidant style even if the need is there because their avoidant style is observed to lessen the TE with and beyond NP.
- 16. Public sector executives can gain higher TE through following rational style and sustaining higher nPow. Moreover they should have lower dependence (i.e. the forceful forward and backward dependence) and lower avoidant style.
- 17. Private sector executives to have higher TE, should follow the rational style and possess higher nAff and nAch. They are advised to control avoidant style and nSec for improving their TE.
- 18. Senior-level executives should skip avoidant approach of decision making so as to attain better TE.
- 19. Middle-level executives can enhance rational DMS and nAff for improving their TE. It is advisable for them to have control on their avoidance and nSec. Specifically, nSec has negative impact on TE only beyond the GDMS.

- 20. Junior-level executives should advisably possess higher nAch and rational approach, and lower down avoidance and nSec to improve their TE. Also, the nSec should be lower for having a higher team functioning and empowerment.
- 21. In general to improve the team functioning and empowerment constituents, the executives must be rational and should not avoid their decisions. This also points that rationality should not take the form of maximization.
- 22. Spontaneous style is observed to associate with lower autonomy levels of executives which mean that executives while having higher such style perceive lower autonomy. Hence spontaneity should be avoided unless channelized through appropriate training.
- 23. Having a higher nAff (alongwith GDMS and beyond GDMS) can enhance cohesion; team functioning, task clarity, autonomy, accountability and team empowerment.
- 24. The higher nAch amongst the Indian executives is associated with higher levels of confrontation, collaboration, team functioning, task clarity, accountability, team empowerment and ultimately better levels of TE.
- 25. Higher nPow should be possessed by executives to have higher collaboration, support and team empowerment. However, the nPow adds only to the support levels during the decision making.

## **6.3 CHAPTER SUMMARY**

The chapter provided insights into the conclusion and implications of the study. With a detailed descriptive discussion, the concluding remarks inclusive of the contributions were shared first. Afterwards, the important specific and generic implications of the study and the findings were presented in points. The findings are creating awareness about the DM styles, motives and TE of Indian executives. The executives may develop their weak areas and exhibit styles that are important to their profiles. Moreover, the executives of similar nature of organizations might also gain insights to pay attention to their GDMS and NP for better TE. The implications in general advance knowledge to OD (Organizational Development) authorities, consultants, practitioners, professionals, managers as well as academicians.

# LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

This chapter elaborates the limitations of the study and it highlights the specific accomplishment of the fifth objective (O5) through suggesting the scope for future research.

# 7.1 LIMITATIONS

Following are the limitations to the study:

- 1. This study addressed the complex constructs of decision making styles and needs which are hard (but not impossible) to trace exactly in a satisfactory way. However, the results are consistent with the theory.
- The study basically measured the associations between independent and dependent variables at one time. So, no firm causality inferences can be made in the absence of longitudinal research designs.
- 3. Common method variance (where the results may derive in part from artificial covariation between the independent and dependent variables, Haines III *et al.*, 2008) cannot be ruled out with a cross sectional design where data is gathered one time. However, the implication has been drawn in line with theory and concepts. In addition, a separate factor analysis was conducted using items of GDMS, NP and TE together. It rendered 20 distinct factors with Eigen values more than 1, together accounting 56.87% variance and the first factor was not accounting majority of the variance. This single factor test removes the concern of common method bias (Podsakoff *et al.*, 2003).
- 4. Various needs and styles are conceptually different; hence the scales (GDMS and NPS) were subjected to factor analysis. The factor analysis of NPS lessened the items measuring nAch from 6 to 4 and that of nPow from 6 to 5.
- 5. As the data is collected using standardized questionnaires through survey, hence the respondents' personal self serving biases might have manipulated their responses. The other related limitations are collection of data from individuals (not teams) and the use of only perceptual measures for data collection.

- 6. The study only concentrated on mean values of the characteristics, not the dispersion of the styles and motives amongst the executives. Moreover, it explored only two predictor variables i.e. General Decision Making Style and Need Pattern, while many other predictors of Team Effectiveness are also highlighted in the literature like leadership, attitude and values, expertise, conflict management etc.
- 7. Only specific styles (Scott and Bruce) were measured in this study, whereas literature serves many other styles (for e.g. Maximiser and Satisficers, Behavioral coping, etc.) which were not considered here. Moreover, only four secondary motives were incorporated in the research, however a few scholars have advocated two more secondary motives of Status (Luthans, 2002, 2008) and Aggression (Sanghi, 1998). Furthermore, the TE framework was delimited to team and task functions suggested by Pareek (2002b). But there are also many other TE models, such as Doolen *et al's*. (2006) TE on two dimensions of team member satisfaction and team performance, and Özaralli's (2003) TE in terms of innovation, communication and team performance, etc.
- Reciprocal relation amongst the variables (for e.g. TE may also affect the DMS and NP of executives) despite the obtained comparatively lower model fits, is evident. The study does not thoroughly discuss the reciprocal relationships.
- 9. There can be certain other variables those might mediate and moderate the relationships amongst the variables. The same has not been covered in this study.
- 10. Lack of enough samples from Public sector (65) and the industries like PME (39), Service (63) and Telecom (32) might have influenced the findings of the regression in those domains. Though, the adjusted  $R^2$  values were peculiarly referred in those cases. Because the adjusted  $R^2$  takes into account the sample size while rendering the coefficient of determination.
- 11. Participation of few females as compared to males can be considered as a limitation of the study (Birasnav and Rangnekar, 2011). The normalization process reduced the sample size from 607 to 541 and also, the study has been done on executives from specific industries which demands additional research to generalize the findings.

# 7.2 SCOPE FOR FUTURE RESEARCH (Specific accomplishment of O5)

# O5: To open new vistas of research.

The implications drawn so far are subject to some limitations. Hence, the scope for future work includes detection of the specific workable limitations. In addition, certain other vistas of research are also opened. The future work prospects are:

- 1. Decision making approach in various situations may be studied and decision making profiles may be developed to deal with identical eventualities. The association amongst the needs point out the necessity to identify the hidden motives behind the prominent motives of individuals.
- 2. The research utilizing diversity based approach may entail new facts related to the impact of DMS diversity and need diversity on TE, for e.g. Johnson *et al.* (2006) illustrated that mixed motives of team members make the cooperation vulnerable to competition and that might undermine performance. Hence, the diversity based research may be undertaken.
- 3. Future research may replicate this study in different work settings and contexts to render new and unforeseen facts. Cross cultural and cross national comparative studies are also possible.
- 4. In continuation to this research, the post transition study may be conducted to measure the improvements made by organizations after paying attention to decision making approaches and motivational profiles of their employees.
- 5. Research using longitudinal designs may be done to gain insights about the stability and over time relationships amongst the variables. Thus, the generalization of findings of the current study by doing research over time is another scope for the future research.
- 6. Further research can be carried out by taking more independent variables (e.g. Leadership style, conflict management) or by replacing the currently used independent variables to see the impact on Team Effectiveness. The sample size can be increased to a more representative one.

- Different rating sources may be used for team performance and its influencing factors (Savelsbergh *et al.*, 2010). Because there may be difference in attitudes of leaders and members of teams (Schippers *et al.*, 2003). This will also prevent "common-method bias" (Podsakoff *et al.*, 2003).
- 8. It would be of great interest to further analyze the relationships of DMS and TE by using other DMS suggested in literature for e.g. Maximiser, Satisficers, Behavioral coping, Consultative, Participative, Delegatory, Autocratic etc. (Parker *et al.*, 2007; Bruine de Bruin *et al.*, 2007; Yousef, 1998). Also, the relationship of motives and TE can be re-explored using the approach and avoidance aspects and operating effectiveness quotients (OEQ) of six different motives: achievement, influence, control, extension, dependence and affiliation (Pareek, 2002a, Verma *et al.*, 2012c).
- 9. Researchers in future may conduct studies on reciprocal relationships amongst the study variables for e.g. the impact of TE on DMS and NP can be explored in detail.
- 10. The differences and variations in DMS, NP and TE across the demographic attributes can be dedicatedly worked upon. Also, the researchers may undertake the TE analysis using TEAM (Pareek, 2002b) for specific teams (departmental, cross functional, task forces, etc.).
- 11. Moderators and Mediators role can be examined in future researches. For e.g. Needs may be used as moderator and mediator between the decision making styles and TE.

## 7.3 CHAPTER SUMMARY

Like any other research, this study also has limitations. The first section of the chapter pointed out the limitations to which this study is subjected. The second section rendered the specific accomplishment of the fifth objective (to open new vistas of research) by mentioning the scope for future work in points. Though the limitations have been dealt upto the possible extent and justifications have been provided, yet there is scope for future research work to address the limitations of this study. Moreover, the study variables can be researched from different perspectives as highlighted in discussion of scope for future research.

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# **APPENDIX-I: SURVEY SCALES**



# INDIAN INSTITUTE OF TECHNOLOGY ROORKEE DEPARTMENT OF MANAGEMENT STUDIES

Dear participants,

Performance of any organization largely depends on its human resource. Decision making approaches and motives of members of an organizational team may determine the level of performance and effectiveness. Thus in this study we intend to explore the impact of Decision Making Style and Need pattern on Team Effectiveness.

In this direction the attached questionnaire is a tool to help us understand your perceptions on the above said factors as you have work experience in the organization. The main objective is to identify your personality and to know your perception about your organizational team. Your response will add value to our research as well as to the literature. We therefore request your response to the survey. Your response will enhance the reliability of the findings of this research. In return for your participation, we undertake to respect strictly your anonymity by using your responses only as statistical data for the research.

Completed questionnaire may be sent through email at following email ids:

nehaverma.1201@gmail.com

n1801ddm@iitr.ernet.in

Thank you in anticipation, for your helpful response.

Yours sincerely

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## **General Decision Making Style Inventory**

(Scott, S. G. and Bruce, R. A., 1995)

Please fill the following information

| Name:                           | Age:      | Gender (M/F): |
|---------------------------------|-----------|---------------|
| Education:                      |           |               |
| Name of Organization:           |           |               |
| Experience (years): Less than 5 | 5 to 15 🖂 | above 15      |
| Designation:                    |           | Department:   |

Listed below are statements describing how individuals go about making important decisions. Please indicate the extent to which you agree or disagree with each statement.

|  |   | Neither           |                 |           |        |       |     |     |
|--|---|-------------------|-----------------|-----------|--------|-------|-----|-----|
|  | Strongly  | Somewhat          | Agree Nor       | Somewhat  | at Str | ongly |     |     |
|  | Disagree  | Disagree          | Disagree        | Agree     | Ag     | gree  |     |     |
|  | 1   | 2                 | 3               | 4         |        | 5     |     |     |
|  |   |                   |                 |           |        |       |     |     |
| 1.   | I plan my imp   | ortant decisior   | s carefully.    | [1]       | [2]    | [3]   | [4] | [5] |
| 2.   | I double-check  | k my informati    | on sources to l | be sure I |        |       |     |     |
|  | have the right  | facts before m    | aking decision  | ıs. [1]   | [2]    | [3]   | [4] | [5] |
| 3.   | 3. I make decisions in a logical and systematic way.                      |                   |                 |           | [1]    | [2]   | [3] | [4] |
| 4.   | 4. My decision making requires careful thought. [1]                       |                   |                 |           | [2]    | [3]   | [4] | [5] |
| 5.   | 5. When making a decision, I consider various                             |                   |                 |           |        |       |     |     |
|  | options in terr   | ns of a specific  | c goal.         | [1]       | [2]    | [3]   | [4] | [5] |
| 6.   | When making   | g decisions, I re | ly upon my in   | stincts.  | [1]    | [2]   | [3] | [4] |
| 7.   | 7. When I make decisions, I tend to rely on my intuition. [1] [2] [3] [4] |                   |                 |           |        |       | [4] |     |
| 8.   | I generally ma  | ake decisions v   | hich feel right | t to me.  | [1]    | [2]   | [3] | [4] |
| 9. When I make a decision, it is more important for me to feel the decision is right than to have a rational |   |                   |                 |           |        |       |     |     |
|  | reason for it.  | cision is right u | ian to have a r | [ 1 ]     | [2]    | [3]   | [4] | [5] |
| 10   | . When I make   | a decision. I tr  | ust my inner f  |           |        |       |     |     |
| 10   | reactions.  |                   | ust my miler it |           | [2]    | [3]   | [4] | [5] |
|  |   |                   |                 | L * ]     | L — J  | [~]   | Γ,1 | [~] |
|  |   |                   |                 |           |        |       | 2   | 16  |

| 11. I often need the assistance of other people            |               | -         |         | F 4 1 | r <b>7</b> 1 |
|--|---------------|-----------|---------|-------|--------------|
| important decisions.                                       | [1]           | [2]       | [3]     | [4]   | [5]          |
| 12. I rarely make important decisions without              | consulting    |           |         |       |              |
| other people.  | [1]           | [2]       | [3]     | [4]   | [5]          |
| 13. If I have the support of others, it is easier f        | for me        |           |         |       |              |
| to make important decisions.                               | [1]           | [2]       | [3]     | [4]   | [5]          |
| 14. I use the advice of other people in making             | my            |           |         |       |              |
| important decisions.                                       | [1]           | [2]       | [3]     | [4]   | [5]          |
| 15. I like to have someone to steer me in the ri           | ght direction | on        |         |       |              |
| when I am faced with important decisions.                  | -             | [2]       | [3]     | [4]   | [5]          |
| 16. I avoid making important decisions until the           | he pressure   | ;         |         |       |              |
| is on.   | [1]           | [2]       | [3]     | [4]   | [5]          |
| 17. I postpone decision making whenever post               | sible.        | [1]       | [2]     | [3]   | [4]          |
| 18. I often procrastinate when it comes to mak             |               |           |         |       |              |
| important decisions.                                       | [1]           | [2]       | [3]     | [4]   | [5]          |
|  |               |           |         |       |              |
| 19. I generally make important decisions at the            | e last minu   | te. [ ] ] | [2] [3] | [4]   | [5]          |
| 20. I put off making many decisions because thinking about |               |           |         |       |              |
| them makes me uneasy.                                      | [1]           | [2]       | [3]     | [4]   | [5]          |
| 21. I generally make snap decisions.                       | [1]           | [2]       | [3]     | [4]   | [5]          |
| 22. I often make decisions on the spur of the n            | noment.       | [1]       | [2]     | [3]   | [4]          |
| 23. I make quick decisions.                                | [1]           | [2]       | [3]     | [4]   | [5]          |
| 24. I often make impulsive decisions.                      | [1]           | [2]       | [3]     | [4]   | [5]          |
| 25. When making decisions, I do what seems natural         |               |           |         |       |              |
| at the moment.   | [1]           | [2]       | [3]     | [4]   | [5]          |
|  |               |           |         |       |              |

## **Need Pattern Inventory**

(Sanghi, S., 1998)

Some statements are given below. Please read them carefully and consider each statement individually and answer as **Yes** or **No.** Write your response in the bracket as "**Y**" for yes and "**N**" for no.

- 1. I am always thinking about my future ( )
- 2. I wish I am given more responsible work. ( )
- 3. I feel that friendship is more important than anything else. ( )
- 4. I become very much attached to my friends. ( )

5. I am worried I should not lose social prestige. ( ) 6. I think if one is financially secured then he can live peacefully in the world.( ) 7. I wish I always do better than others. ( ) 8. I would like to tell people what to do. ( ) 9. I hate staying alone. ( ) 10. I make friendship with those persons with whom I can feel secured. ( ) 11. At times I am in tension that I will be dismissed. ( 12. I make it point of keeping in close touch with the doings and interests of my friends. ) ( 13. I like to have my disciples. ( ) 14. I usually influence others more than they influence me. ( ) 15. I usually go out with my friends. ( 16. I do not like those situations which are not competitive. ( ) 17. I make as many friends as possible and I am on a look out for more. ( ) 18. I am always worried how increase savings. ( ) 19. I feel that only ambition can bring a man's mind into full activity. ( ) 20. I would like to complete one task before being assigned another. ( ) 21. I find it rather easy to lead a group of people and maintain discipline. ( ) 22. I feel I can lead better than others. ( 23. I wish I would always achieve success in my work. ( ) 24. I feel I am driven by an underlying desire for power. ( )

#### **Team Effectiveness Measure**

### (Pareek, U., 2002a)

Rate your organizational team on the following items. Write 4: if this is **highly characteristic** of your group, and/or this **always** happens.

Write 3: if this is **fairly characteristic** of the group, and/or this **frequently** happens. Write 2: if this is **slightly characteristic** of the group, and/or this **sometimes** happens. Write 1: If this is **very little true** about the group, and/or **occasionally** happens. Write 0: if this **not at all true** about the group, and/or it **almost never** happen.

- 1. The goals of this team are well defined. 0 1 2 3
- Members of this team generally feel that their concerns and views are ignored by other members.
   0 1 2 3 4

4

- 3. The team has enough freedom to decide its way of working. 0 1 2 3 4
- 4. Members generally avoid discussing the problems facing the team. 0 1 2 3 4

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| 5. The team is given adequate resources to carry out its functions.<br>0 	 1 	 2 	 3 	 4                      |
|---|
| 6. Members do not volunteer to help others.<br>0 	 1 	 2 	 3 	 4  |
| 7. The sense of responsibility and accountability is pretty high amongst the team members.<br>0 1 2 3 4       |
| 8. There is confusion amongst members of the team about its main tasks.<br>0 	 1 	 2 	 3 	 4                  |
| 9. Members support each other when required.<br>0 	 1 	 2 	 3 	 4   |
| <b>10.</b> The team only carries out the tasks given to it; it cannot decide its own priorities.<br>0 1 2 3 4 |
| <b>11.</b> The team generates alternative solutions for a problem.<br>0 1 2 3 4                               |
| <b>12.</b> The team does not get adequate support to perform its tasks.<br>0 1 2 3 4                          |
| <b>13.</b> In the group the task is divided into small teams.<br>0 1 2 3 4                                    |
| <b>14.</b> No one cares to assess the true extent of achievement of the goals of the team.<br>0 1 2 3 4       |
| <b>15.</b> Each member knows what his/her role in the team is.<br>0 1 2 3 4                                   |
| 16. This team does not function as a strong team. $0$ $1$ $2$ $3$ $4$   |
| <b>17.</b> The members of the team have enough freedom in their own areas.<br>0 1 2 3 4                       |
| <b>18.</b> There is a lot of hesitation in taking hard decisions in this team.<br>0 1 2 3 4                   |
| <b>19.</b> The team has enough competent persons needed for its work.<br>0 1 2 3 4                            |
| <b>20.</b> Members of this team hesitate to ask for others help when they need help. $0 	 1 	 2 	 3 	 4$      |

| 21.  | The team<br>0 | uses appro   | priate ways o<br>2 | f assessing<br>3 | its accountability.<br>4                |  |
|--|---------------|--------------|--------------------|------------------|---|--|
| <b>22.</b> Members of the team are not clear how to work towards the team goal.                        |               |              |                    |                  |   |  |
|  | 0             | 1            | 2                  | 3                | 4                                       |  |
| <b>23.</b> Members back the decisions taken by the group.  |               |              |                    |                  |   |  |
|  | 0             | 1            | 2                  | 3                | 4                                       |  |
| <b>24.</b> The team does not have autonomy in vital aspects of its working.                            |               |              |                    |                  |   |  |
|  | 0             | 1            | 2                  | 3                | 4                                       |  |
| 25.  | Members       | of this grou | up do not hes      | itate to exp     | ress their differences with each other. |  |
|  | 0             | 1            | 2                  | 3                | 4                                       |  |
| <b>26.</b> There is lack of various resources (human and financial) required by the team.              |               |              |                    |                  |   |  |
|  | 0             | 1            | 2                  | 3                | 4                                       |  |
| <b>27.</b> Members respond positively to the help requested.   |               |              |                    |                  |   |  |
|  | 0             | 1            | 2                  | 3                | 4                                       |  |
| <b>28.</b> The team does not have internal mechanism of assessing its progress in achieving its tasks. |               |              |                    |                  |   |  |
|  | 0             | 1            | •                  | 2                | 4                                       |  |

0 1 2 3 4