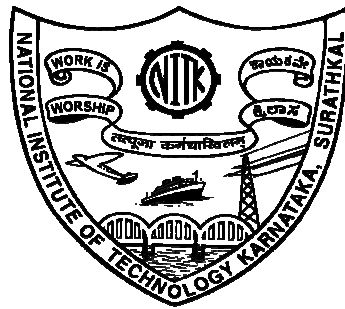# IMPACT OF ORGANISATIONAL CULTURE, TRUST AND PARTICIPATION IN DECISION MAKING ON MULTIPLE COMMITMENTS

Thesis

Submitted in Partial Fulfillment of Requirements for the Degree of

DOCTOR OF PHILOSOPHY

by

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July, 2017

DECLARATION

I hereby declare that the Research Thesis entitled "**Impact of Organisational Culture, Trust and Participation in Decision Making on Multiple Commitments**" which is being submitted to the **National Institute of Technology Karnataka, Surathkal** in partial fulfilment of the requirements for the award of the degree of **Doctor of Philosophy** in School of Management is a **bonafide report of the research work carried out by me**. The material contained in this Research Thesis has not been submitted to any University or Institution for the award of any degree.

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CERTIFICATE

This is to certify that the Research Thesis entitled "**Impact of Organisational Culture, Trust and Participation in Decision Making on Multiple Commitments**" submitted by **Shilpi Saha** (Register Number: **135008HM13F02**) as the record of the research work carried out by her, is accepted as Research Thesis submission in partial fulfilment of the requirements for the award of the degree of **Doctor of Philosophy**.

………………………….
Dr. S. Pavan Kumar
(Research Guide)

(Signature with Date and Seal)

………………………….
Prof. K.B. Kiran
(Chairman - DRPC)

(Signature with Date and Seal)

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my research guide, Dr. S. Pavan Kumar, for his continuous support to my Ph.D. study and related research amidst his hectic work schedule, for his enthusiasm, motivation, and immense knowledge. His guidance helped me throughout the period of research and in writing of this thesis. I would like to express my sincere thanks to him for enlightening me in many aspects of my research work and supporting me thoroughly with his guidance. He has shown immense patience, understanding and instilled a sense of understanding in me, which helped me sail through the difficult times. I could not have imagined having a better advisor and mentor for my Ph.D. study.

I am thankful to Prof. K.B. Kiran, Prof. G.S. Dwarakish, and Dr. Sheena, for being members of the Research Progress Assessment Committee and also for their insightful comments and encouragement. I am thankful to Prof. A.H. Sequeira and other faculty members of the department for being supportive throughout my research work. I acknowledge all the supporting staff of the School of Management for their cooperation and assistance and also to the administration of NITK Surathkal for providing excellent working environment.

I would like to thank my father, Shri Samar Kumar Saha, for his encouragement and also for accompanying me to remote places for survey purposes and data collection. I would like to thank my mother, Smt Kumkum Saha, for believing in me and motivating me to do higher studies. I am thankful to my brother, Master Souvik Saha, for his support. I will be failing in my duty if I do not mention here the tremendous support, motivation, moral and emotional support I received from my husband, Shri Dibyendu Saha, for supporting me in difficult times. He has faith in my intellect and unconditionally supported me throughout the period of writing this thesis and my life in general. No words can express my appreciation for their continuous love and support. Last, but not the least, I would like to thank my friends for their motivation and inspiration to make me perform to my best.

Shilpi Saha

ABSTRACT

Employees are considered as an important asset to any organisation. The present study aimed at understanding the impact of variables such as organisational culture, trust, and participation in decision making on multiple commitments in employees such as group commitment, job involvement, normative commitment and continuance commitment. A research instrument was administered to each of 712 managerial employees working in Indian public sector undertakings (PSUs). Structural equation modeling was used as a statistical tool to verify the proposed relationships. The results of the analysis revealed that age was positively related to continuance commitment and job involvement. Education was positively related to continuance commitment and normative commitment. Tenure was observed to be positively related to continuance commitment, normative commitment, group commitment and job involvement. The findings revealed that supportive culture and bureaucratic culture significantly predicted group commitment. Normative commitment was only predicted by innovative culture. All three forms of organisational culture significantly predicted organisational learning. Apart from organisational culture, organisational learning is predicted by cognitive trust and participation in decision making. The findings revealed that affective trust significantly related to group commitment. Cognitive trust significantly predicted job involvement, normative commitment and organisational learning. Participation in decision making significantly predicted job involvement, normative commitment and organisational learning. The findings of this study also revealed that organisational learning significantly predicted group commitment and job involvement. This study presented the interrelationships among the commitment forms. It was observed that job involvement predicted group commitment, normative commitment and continuance commitment. Normative commitment predicted continuance commitment. In addition, organisational learning acted as a mediator between supportive culture and group commitment. The implications of these findings for people holding responsibility in PSUs have been discussed in this study.

Keywords: organisational culture, trust, participation in decision making, organisational learning, group commitment, job involvement, normative commitment, continuance commitment.

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INTRODUCTION

CHAPTER 1

INTRODUCTION

Industrialisation has been encouraged by the Indian government in the last few decades owing to its potential economic benefits. Privatisation and liberalisation has boosted the growth of Indian economy. However, among all businesses, the public sector needs to reconsider its work environment. Research suggests that public sector needs to improve its performance and productivity (Pillania, 2006). Participative management is one of the important mechanisms in the productivity and performance-led global economy. The performance and competitiveness of any organisation is at stake if employees feel that they are not empowered. The human resource pool has to be very talented and determined to obtain sustainable competitive advantage (Barney, 1991). Employees, in any organisation, are the backbone for the overall development of the organisation. Their capabilities and efforts are a crucial source of competitive advantage.

Workplaces in organisations are very diverse. They have to accommodate goals and aims of every individual. This requires interactive behaviour between allied members, which in turn, can develop trust among each other. Social and business life of employees are interdependent on each other. They get engaged in social interactions to work together and face challenges. Trust can facilitate sharing of knowledge among individuals (Levin and Cross, 2004). It is a vital component of social systems (Coleman, 1990) as it can influence factors like job satisfaction, organisational learning and commitment. The various dimensions of trust have to be considered in order to understand its impact on organisational learning. Trust creates congenial work environment which helps in organisational learning and elevates organisational commitment (Appelbaum, Louis, Makarenko and Saluja, 2013). In such an environment, employees tend to present their opinion easily on important work related decisions.

Participation in decision making is another important variable which allows to share information and influence among individuals who are hierarchically at different levels. Participative management practices help to maintain balance on the involvement of managers as well as the subordinates in the daily tasks and activities

related to the job (Wagner, 1994). It is believed that participation has the potential to determine organisational commitment (Scott-ladd, Travaglione and Marshall, 2005). Participation in decision making paves the way for employees to work together, thus indirectly contributing to generate group commitment (Karia and Ahmed, 2000). Performance of employees is likely to improve when they express their views on certain matters. Largely, it appears that the main concern of an effective participation is greater organisational effectiveness from an employer's perspective and improved working conditions from an employee's perspective. This is achieved through the presence of suitable culture in an organisation.

Employees who work in highly innovative culture consider their work environment to be more supportive than those who work in less innovative culture (Malaviya and Wadhwa, 2005). It is also necessary for the culture to be supportive and bureaucratic (Wadhwa and Rao, 2004; Pathardikar and Sahu, 2011). Supportive culture helps to obtain clarity of purpose, maintains equity, fairness (Brooks and Wallace, 2006). This may help employees to be obligated towards the organisation in the long run (Pathardikar and Sahu, 2011). Bureaucratic culture has certain procedures and it has hierarchical structure. This culture combines values of organisations and long working experiences may help employees to continue working for their organisations (Pathardikar and Sahu, 2011).

Lawler (1992) pointed out that more participation by employees towards work related decisions in work groups help to improve the workplace. Members of groups who had trained together displayed stronger memory to remember different aspects of task. They could coordinate more effectively and they showed greater trust in other members'expertise. In this productivity and performance led global economy; participative management is one of the important mechanisms. If employees feel that they are not empowered, then competitiveness and performance of organisations in the country will be at stake. The highest levels of satisfaction and commitment in the work environment are likely to occur when there is high level of involvement by the work group in planning processes, generating alternatives, formulating policies and evaluating results.

A group of employees working together to complete organisational goals form a work group (Hackman, 1987). Every member in a work group would want to improve his or her work skills and knowledge by working in a group. This makes development of individual knowledge within a work group necessary. This process of learning by sharing experiences with each other is considered as organisational learning. It is expected to be influenced by relationships between the employee and his co-workers.

Organisations have to be competitive. They have to adapt to rapid changes to meet demands of the competitive business scenario (Popper and Lipshitz, 2000). Organisational culture and organisational learning are very important for survival and growth of organisations in this context (Cook and Yanow, 2011). All employees working in any particular organisation have to learn certain new things that are considered essential to boost productivity. Organisational learning suggests learning has to occur at an organisational level and not only at an individual level (Pillania, 2006). Culture is very important in the functioning of an organisation. This is a recent aspect that is being focused in organisation behaviour (Pondy and Mitroff, 1979). It is often seen that not all employees welcome change. So organisations are often resistant to change owing to less readiness to change. This needs to be taken care by finding possible interpretations and solutions. Organisational culture has to be changed to remove resistance in organisational learning (Schein, 1985; 1992).

For the change to occur, organisational learning has to take place so that the organisation can evaluate its understanding of ways to deal with business. Culture is used by management to nurture the beliefs, behaviours and understandings of individuals of an organisation to reach specified goals (Deal and Kennedy, 1982). Organisations can maintain a good work environment in this way. This will make employees develop positive feelings for their organisations.

A healthy work environment has to be free from all possible conflicts among employees. This would generate good amount of trust, interaction and learning among employees within work groups. Both organisational learning and commitment have been recognised as the main ingredients of a work group (Maynard, Mathieu and Gilson, 2012; Hackman and Morris, 1975). Employees learn as a function of working with their respective work groups (Tannenbaum, Beard, McNall and Salas, 2010).

This strengthens bonding among all employees as well as within members of work groups (Bishop and Scott, 2000). Group commitment is a form of commitment that gauges the level of bonding of an individual with his or co-workers (Randall and Cote, 1991). This concept of group commitment is very new in the research domain of commitment.

Data were collected from Central Public Sector Enterprises (CPSEs) or public sector undertakings in India. The reasons for considering this sector are many due to personal and business fronts. Firstly, they are renowned to be people-centric and dynamic (Gupta and Pannu, 2013). Secondly, these organisations continue to attract millions of job seekers mainly because of job security and stability (Ahmad, 2013). Thirdly, these organisations are growing in importance: nationally and internationally. According to Performance Report (2015) in India, "all public sector undertakings collectively accounted for 23.2 percent of the total market capitalization" and "9 percent of India's total export earnings was contributed by these organisations". Fourthly, government orders for public sector undertakings generally aim at betterment of the society. Finally, public sector undertakings have a direct impact on foreign exchange earnings of the country because their focus is mainly on international trade in goods and services (Performance Report, 2015). These above stated reasons only highlight the potential economic significance of the public sector undertakings in determining the Indian business growth.

Many of these Indian public sector undertakings have experienced high growth with change in management practices aimed at boosting commitment of employees. Example of such a practice is taking care of employee needs, such as, job stability and job security (Gupta and Pannu, 2013). It is reported that certain measures taken by the state to improve performance and employees' commitment are reflected in their products and services (KPMG, 2012). A report by the government of India has stated that flexibility and autonomy in the public sector undertakings have enabled them to operate effectively in the competitive market with outstanding results (Public Enterprises Survey, 2016). The employees are being encouraged to work more effectively through developing commitments at individual, group and at an organisation level. However, to have a clear understanding of the differences in

different commitments, it is necessary to have some details about them. Hence, this dissertation provides one of the few empirically-driven investigations in the areas of human resource management in PSUs.

It can be argued that the workplace set-up is changing. In recent years, it is characterised by high global competition due to advancement in technology. To be competitive, companies must be able to adapt to the changing conditions. Under such changing business environment, organisations have to continuously look for employees who are qualified, skilled and also committed. At the same time employees are advised not to become too committed to their employers, but to look out for themselves to ensure that they remain employable in the event of uncertainties such as layoff. Apparently, employees should not be committed to just one aspect in workplace such as their work group or to their job or to the organisation as a whole any longer. In other words, if employees may be less committed to work group, they may be more committed to another aspect like job or organisation.

This is one important reason because of which researchers are becoming increasingly interested in the broad concept of organisational commitment. This shows that it is useful to study multiple commitments rather than focusing on only one form of commitment. Group commitment is a form of commitment that gauges the level of bonding of an individual with his or co-workers (Randall and Cote, 1991). Continuance commitment and normative commitment are less researched areas though they are important forms of commitment (Kell and Motowildo, 2012). Organisational commitment has been of great importance in business and organisational studies (Giri and Kumar, 2013).

Organisational commitment is of utmost importance to enhance organisational behaviour in PSUs (Ahmad, 2013). Employees exhibiting high organisational commitment perform better than employees with low commitment (Laschinger, Wilk, Cho and Greco, 2009). Organisational commitment is one such variable which was researched abundantly not only in manufacturing sector, but also in service sector such as education (Kumar and Giri, 2013). Existing literature suggests that certain forms of commitment like normative commitment, continuance commitment and group commitment have not been studied extensively. Also, to the best of researchers'

knowledge, research on the relationship between participation in decision making, organisational learning and group commitment is very limited in Indian public sector enterprises. The present study attempts to fill this gap by supplementing research and studying the impact of these variables on behavioural outcomes.

1.1 Literature Review

1.1.1 Organisational Culture

The term organisational culture is used as an umbrella concept for a way of thinking that takes place in organisations. It refers to shared orientation to social reality created through the social interactions. Potter (2003) defines organisational culture as the values, beliefs and norms expressed in actual practices and behaviour of the organisation's members. Wallach (1983) has classified organisational culture in three parts as follows:

- The bureaucratic culture – it is characterized by hierarchical, clear authority lines, organized, compartmentalized and systematic work. Flow of information and authority is hierarchical based on control and power. The various adjectives used for bureaucratic culture are power oriented, solid, cautious, regulated, established, ordered, structured, procedural and cultural-hierarchical.

- The innovative culture – it is known for creative and dynamic work environment. People are always under stress to perform better. The various adjectives that are used to describe innovative culture are result-oriented, risk-taking, creative, pressurised, challenging, stimulating, enterprising and driving.

- The supportive culture – it is characterized by confidence, encouraging, trusting, people-oriented and friendly work culture. Adjectives used for this culture are supportive, trusting, equitable, safe, social, encouraging, relationships-oriented and collaborative.

Organisational culture is often explained as way of doing things (Bower, 1966) and things that go and that do not go (Heskett, 2011). It is augmented by past stories

and experiences of employees gained over the years. This includes certain unacceptable behaviours which need actions to make them right (Heskett, 2011). It is perceived to be the glue that binds employees and organisations to help to take right decisions (Haberberg and Rieple, 2008). An organisational culture consists of shared beliefs, values, norms and behaviour that form an organisation's environment. Thus, the employee would work for the organisation, can foster trust, facilitate communication and can build organisational commitment.

1.1.2 Participation in Decision Making

Empowerment is perceived to put employees at the centre of development. There is consensus among researchers that empowerment is principal component of organisational effectiveness and efficiency (Crow and Pounder, 2000; Kukenberger, Mathieu and Ruddy, 2015). There are many dimensions of empowerment like decision making, professional growth, status, self-efficacy, autonomy and impact (Short and Rinehart, 1992). However, among all these dimensions, participation in decision making has growing literature in relation to various organisational outcomes.

Sharing of decision making process or joint decision making between superiors and employees in order to achieve organisational objectives is known as participation in decision making (Knoop, 1995; Koopman and Wierdsma, 1998). Positive organisational outcomes like job satisfaction and commitment are attributed to participation of employees (Kappelman and Prybutok, 1995). This is because outcomes are valued more by those employees who make decisions that have their consent in them (Black and Gregersen, 1997). This in turn, reinforces commitment. PDM offers employees different levels of influence in making policies ranging from consultative committees to developing good relations with managers. This makes them committed to their organisation (Kumar and Giri, 2013).

Participation programs of employees have gained popularity among managers and employees across organisations. Research suggests that this kind of participative management is found to have substantial positive influence on organisational commitment in work environment (Kim, 2002). Participation in decision making

offers employees different levels of influence in making policies ranging from consultative committees to developing good relations with managers. When employees participate actively in making decisions, sense of owning the organisation may be felt by them for contributing their own ideas (Schermerhorn, Hunt, and Osborn, 1994).

1.1.3 Trust

Trust has been defined as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviors of another" (Rousseau, Sitkin, Burt, and Camerer, 1998, p. 395). Trust is also defined as "the intention to accept vulnerability to a trustee based on the positive expectations of his or her actions" (Colquitt, Scott and LePine, 2007, p. 909). It forms the centre of all our daily social activities and it is necessary for all social transactions by which transaction effort is reduced (Bromiley and Cummings, 1995). It has been studied in literature that trust is a vital form of social capital in social systems (Fukuyama, 1995) because every day's social life is not possible without trust (Good, 1988). Workers of every generation are skeptical about their organisations and so is their trust (Brandes, Castro, James, Martinez, Matherly, Ferris and Hochwarter, 2008) as people come to work from different places having different religion, language and beliefs.

Organisations have a diverse workforce nowadays. Employees look for similarities in their ways of working like experience in the same field to ease the joint effort of working together (Berscheid and Walster, 1978). Research suggests that trust is explicitly needed for growth and performance (Cheng, Chou, Wu, Huang and Farh, 2004). Therefore, ability to trust each other helps them to work effectively.

There are two different components of trust, namely, affective and cognitive trust. Affective trust is the emotional component of trust and cognitive trust is the logical component of trust (Ziegler and Golbeck, 2007). Affective trust is the result of personality cues and sensory connections and cognitive trust is the result of shared backgrounds and experiences among the employees that strengthen certainty among employees (Ziegler and Golbeck, 2007). In this view, trust between employees and

organisation is known to have been associated with multiple commitments (Appelbaum, Louis, Makarenko and Saluja, 2013).

1.1.4 Organisational Learning

Organisational learning is understood from various perspectives. Literature suggests that organisational learning has evolved since a long time in the psychological field (Wang and Ahmed, 2001). Literature reveals that learning is a vital process that enables organisations to survive and it controls culture, behaviour and performance of organisations (Levitt and March, 1988). Learning helps to share interpersonal knowledge.

An organisation needs to change when transformation of environmental conditions renders previous organisational strategies and orientation obsolete (Tushman and Romanelli, 1985). Restructuring new intra and extra-organisational working relationships, revamping the organisation are the only ways for an organisation seeking continued survival (Haveman, 1992). Organisational learning is an intentional process directed systematically at improving organisational effectiveness (Sahin and Simsek, 1996). It occurs when individuals are willing to share information within groups.

Groups in an organisation need to learn skills of talking together productively, respecting the diversity of individual members and consistently becoming more effective in reaching collective goals. Organisational learning acts as a principal measure of renewal of strategy of an organisation. Therefore, it is considered crucial for enhancing organisational commitment of employees. Organisational learning may involve relation between new learning (exploration) and already acquired knowledge (exploitation).

1.1.5 Multiple Commitments

Meyer and Allen (1984) proposed a two-dimensional organisational commitment model. The first dimension is based on "positive feelings of identification with,

attachment to, and involvement in the work organisation" (Meyer and Allen, 1984, p.375) and is termed as affective commitment. the second dimension is related to "the extent to which employees feel committed to their organisations by virtue of the costs that they feel are associated with leaving" and is defined as continuance commitment. In subsequent research, a third dimension was added by Meyer and Allen (1990), termed as normative commitment, which is defined as the employees' feeling of obligation to remain with the organisation.

There is no clear understanding about the factors that lead to organisational commitment till date despite the presence of many studies on organisational commitment (Bigliardi, Dormio, Galati and Schiuma, 2012; Kukenberger, et al., 2015). Trust and human resource management practices are few of these factors (Meyer and Allen, 1997). The effect of these factors on commitment is still not very clear. Organisational commitment is of high interest to researchers since it is considered as an important organisational behaviour.

There are different objects in an employee's workplace like work group, individual, job or profession. Any of these objects can take a special meaning and importance in the life of the employee. Hence, an employee can display commitment in various ways, like, commitment to the work group, or to any individual, or to the job and profession (Cohen, 2003). It is not necessary that the employee will exhibit commitment equally for all these objects. Level of commitment exhibited may vary from object to object. This indicates the need to focus on more than one form of commitment or multiple commitments. Thus, it is needed to find the determinants of these commitments and the objects for which an employee is committed.

Research indicates that a multi-dimensional approach to commitment can predict work outcomes better than any individual commitment. Further, research on commitment is needed because our understanding of commitment processes increases by an examination of more than one commitment at a time (Cohen, 2003).

1.1.5.1 Organisational Commitment

Mostly, commitment is considered as an attitude that reflects many feelings like affection, satisfaction and loyalty (Morrow, 1993). Organisational commitment of employees is defined as the relationship between the individual and the organisation for which he or she works (Allen and Grisaffe, 2001). Organisational commitment plays a significant role in the study of organisational behaviour. Organisational commitment has captured the attention of researchers for many years. Researchers have found that organisational commitment has remained a point of interest ever since it was introduced in the early 1950s to the field of organisational behaviour (Goulet and Frank, 2002; Aryee and Heng, 1990). Huge number of research works have shown relationships between organisational commitment and attitudes and behaviour in workplace, which has eventually increased the popularity of organisational commitment (Angle and Perry, 1986; Meyer and Allen, 1991; Cohen, 2003).

Organisational commitment is a topic which has attracted many researchers for number of reasons such as: a) a committed employee is more likely to continue working with the organisation to achieve its goals, (b) organisational commitment is negatively associated with increased absenteeism, (c) because of its increase in the organisational behaviour literature (Mathieu and Zajac, 1990).

1.1.5.2 Affective Commitment

It is the emotional component of employee with which he identifies and engages with the organisation. Affective commitment is regarded as the willingness to retain membership with an organisation to pursue one's goals (Kumar and Giri, 2012). It is defined as "positive feelings of, attachment to, identification with and involvement in the organisation" (Meyer and Allen, 1997, p.11). An individual who is affectively committed to his or her organisation might be more likely to be attached to his or her organisation, to join and be active in relevant matters. Researchers point out that affective commitment has been researched widely ever since it was introduced in the early 1950s to the field of organizational behaviour (Giri & Kumar, 2013; Johnson & Yang, 2010). However, other forms like normative and continuance commitment are

relatively less researched (Meyer, Stanley, Jackson, McInnis, Maltin and Sheppard, 2012). Hence these two commitment forms have been considered to find its importance and antecedents.

1.1.5.3 Continuance Commitment

This component is associated with the costs that the employee would have to forego for leaving the organisation. It is defined as "the extent to which employees feel committed towards their organisations by virtue of the costs that they feel are associated with leaving" (Meyer and Allen, 1984, p.375). This form of commitment is based on side-bets or benefits that the employee will have to forego in case of leaving the organisation.

1.1.5.4 Normative Commitment

This component of commitment deals with the obligation that the employee has in order to continue working with the organisation (Cohen, 2015). This obligation arises out of societal pressures or personal feeling of working for the organisation. This would reflect a general willingness in employees to be loyal to their organisation.

1.1.5.5 Group Commitment

Group commitment is a very new concept in multiple commitments research because not many studies have been done on this area (Cohen, 2003; Morrow, 1993; Kukenberger et al., 2015). It is defined as an individual's identification and sense of cohesiveness with other members of the organisation (Randall and Cote, 1991, p.195). Employees might develop commitment to the work group instead of developing commitment to the organisation (Meyer and Allen, 1997). Most of the research on group commitment related it to organisational commitment conceptually or empirically. Work groups demand work to be done together. This brings social involvement and social ties improve. Randall and Cote (1991) explained that on being

hired, one's initial reference group gratifies one's needs for guidance and reassurance and exerts a lasting influence over individual attitudes to the organisation.

1.1.5.6 Job Involvement

One of the objects in organisation is the job. Employees may develop commitment towards the job. Blau (1985) has defined job involvement as the extent to which an individual identifies psychologically with his/her job. It is also indicated by the degree to which one identifies emotionally with the job (Zhou and Li, 2008). This means that an employee's personal life would be affected greatly by the importance of his or her job. If an employee gives importance to his or her job, he is likely to be loyal to the organisation. It can be perceived that if employees are involved enthusiastically in their job, they view it as an important part of their self-worth. Kanungo's (1982) scale is a widely accepted scale to measure job involvement in organisations.

1.1.6 Demographics and Multiple Commitments

In order to preserve commitment of employees, organisations have to take care of expectations of employees. Expectations can differ from one employee to another. For example, someone may not want monotonous work to make it interesting and attractive to work. Some other employee who has the responsibility of immediate family members as well as distant family members would anticipate hike in payments. In addition, female employees may want some flexibility to certain extent in their work schedule and amounts of work. Also, education level of employees may help determine commitment level of employees to some extent. For example, an employee who is highly committed with a long tenure may opt for a job which is more intellectual and demanding in contrast to an employee who is less educated.

These arguments justify that organisations should strike a balance between interests of employees and their commitment levels. This generates a need to study commitments and demographic factors that affect commitment of employees with their organisation. Considering that demographic factors may determine level of commitment, it may be noted that India represents an Asian context with a diversified

collectivist culture. Individuals from different regions with different backgrounds, beliefs, faith and language work together in an organisation. So the present study aims to investigate the impact of demographic factors like gender, age, education, tenure and marital status on different forms of commitment.

1.1.7 Organisational Culture and Multiple Commitments

Culture is an important factor for the success of an organisation. It presides over the values of the organisation. Employees who are new often expect good culture to prevail in the organisation. Silverthorne (2004) found that bureaucratic culture resulted in the lowest levels of organisational commitment. A supportive culture had the highest level of organisational commitment. Innovative culture was the next highest. Organisations that aim for high performance must concentrate on improving their culture. This is because culture can influence social life of employees within workplace. Harris and Mossholder (1996) found that organisational culture influences outcomes of individuals such as commitment.

One of the factors which can influence the relationship among employees is its organisational culture. There are certain jobs that need many people working together at the same time. This is when various functions need to be integrated at times to complete a single job. People often prefer to work in groups. Collectivist tendencies exist among Indians (Hofstede, 1980; Singh, 1990; Verma and Triandis, 1999). Collective nature of work is referred when group work needs to be done. Continuance and normative commitment of individuals increases when they are certain that their job is secured (Messner, 2013).

Although research has been done on the relationship between organisational culture and organisational commitment, latest studies show that there has been paucity of research verifying this relationship between the above mentioned variables in Indian public sector organisations. However, there is no creditable research work which verifies the relationship between organisational culture and group commitment.

1.1.8 Organisational Culture and Organisational Learning

Learning is considered an essential activity in every organisation. As the business becomes more globalized, organisational learning would be more emphasized. Learning helps in growth of individuals. It helps them know about latest techniques and keeps them motivated. Culture that supports new ideas can significantly affect organisational learning. Organisational culture affects behaviour of employees (Lee and Chen, 2005) which, in turn, can influence sharing information and learning.

A good organisational culture helps to promote organisational learning (Yanow, 2000). Organisational learning helps employees to gain knowledge, skills and expertise in the field of work. This would help them to achieve effectiveness in their job (Kululanga, Edum-Fotwe, and McCaffer, 2001). Knowledge has to be constantly updated to enable efficient handling of changes (Lemon and Sahota, 2004). Brian and Pattarawan (2003) have opined that OC can have positive impact on OL. This was also suggested by Czerniewicz and Brown (2009). Susana, Jose and Camilo (2004) pointed that though organisational culture does not directly influence performance of the organisation; rather by ensuring organisational learning among employees.

The top managers will get benefitted with an increased understanding of the latest updates in technologies and processes due to the presence of organisational learning (Brady and Davies, 2004). Lee and Choi (2003) concluded that cultures which are less hierarchical and more supportive to employees allow them to interact with each other and share experiences.

Looking at the pace at which the business is taking its course in globalized and liberalized economy, more research is warranted on the relationship between organisational culture and organisational learning. It is evident from review of literature that organisational culture has an influence on organisational learning, but the impact of different types of organisational culture on organisational learning needs to be studied.

1.1.9 Trust and Organisational Learning

Certain organisations suffer from lack of trust and an increase in fear when there is new technology or new skill introduced that needs to be learnt (Buch and Aldridge, 1991; Cascio, 1993). Open communication, sharing of experiences, information and feelings within employees facilitate trust in organisations (Mishra and Morrissey, 1990). There may be a positive relationship between trust among employees and learning among each other (Gilbert and Tang, 1998). They suggested that trust has the potential to enhance formal, and more importantly, informal discussion on gaining new knowledge and learning in organisations. It is therefore anticipated that strong belief in each other characterized by a desire to help in work-related issues may facilitate learning in organisations.

A trusting atmosphere is present when it is supported and cultivated continuously by management. Learning takes place when there is trust and people offer to help one another (Senge, 1997). Previous studies have examined the role of trust in learning (Levin and Cross, 2004; Morrow, Hansen and Pearson, 2004; Renzl, 2008). Affective trust and cognitive trust may not be equally important to create an organisational learning environment (Swift and Hwang, 2013). This is because these two facets of trust may not affect learning in the same way (Chowdhury, 2005). Research shows that there are very few studies which have assessed the importance of trust on organisational learning. There exists possibility to broaden the knowledge about trust affecting organisational learning in Indian public sector undertakings.

1.1.10 Trust and Multiple Commitments

Trust is a very basic component in organisations. Employees can perceive their own value in the amount of faith that employer places in them. Excellent employment relationship is based upon trust in organisation (Cropanzano and Mitchell, 2005; Moye and Henkin, 2006). Studies have found that trust between employer and employee is necessary to build commitment towards a common goal (Rogers, 1995). Trust needs to be present among employees for their well-being at work (Peterson, 1998).

Trust is defined as the ability of an individual to take risks based on being vulnerable to others' actions assuming that they will help the individual (Gilbert and Tang, 1998). Members of a work group as well as an organisation keep changing over time in an organisation. There may be new members added to a work group. This brings a transitional period of uncertainty. For the same matter, a newly hired manager would bring some uncertainty to the job. Sometimes, in the event of switching jobs, there is restructuring of departments in an organisation. This changes member composition of these departments. Coordination is very important between employees to perform work. If they are exposed to ambiguity, then their relationships between themselves as well as with the organisation are subject to stress (Mishra and Spreitzer, 1998). Thus, changes in member composition, system and job roles is likely to have an impact on employees' relationships with their organisation, jobs and work groups.

Employees who trust each other would know that their ideas presented to the management would be supported by others (Peterson and Xing, 2007). They would also know that if they go wrong at some point of time, their colleagues would help them correct it and proceed ahead. Employees can perceive their own value in the amount of faith that employer places in them. This would help employees to be open and discuss and share experiences among themselves. This is necessary in the long run for them to become enjoy the work and become committed to work for the organisation.

There are very few studies which have verified the relationship between trust and organisational behavioural variables such as group commitment, normative commitment and continuance commitment. There is possibility of examining consequences of trust in Indian context.

1.1.11 Participation in Decision Making and Multiple Commitments

Employees will develop sense of belongingness with the organisation when they are allowed or given opportunity to participate in decision making process. Such feeling would improve their organisational effectiveness by achieving organisation goals on

time. Participation is considered to improve level of commitment of employees through which they can improve their productivity. This would motivate them to continue to work for benefit of their organisation.

Participation in decision making enables an employee to express his views on issues concerning his or her job (Teas, Wacker and Hughes, 1979). Employees who participate in decisions may have relatively higher levels of organisational commitment than employees who do not participate in decision making (Long, 1978). This process of participation might strengthen identification of employees with their job and values of the organisation.

Research in similar fields yielded possibility of an association between participation in decision making and group commitment (Kukenberger, et al., 2015). In the organisation, employees having attachment with the organisation are bound to share similar interests. Hence, it is essential to focus on the impact of participation on group commitment with their organisational behavioural outcome for long term performance and longevity of the group (Ellemers, Gilder and Heuvel, 1998a). When employees have the ability to participate in decision making, they perceive it as organisational support that facilitates group commitment (Bishop, Burroughs and Scott, 2000). Evaluating the impact of extent of decision making in one's work group on attachment with the organisation is very important for the organisation's long term performance. A possible extension is to examine the relationship between participation and other commitment variables, such as job involvement, normative commitment and continuance commitment in Indian context like public sector undertakings.

1.1.12 Participation in Decision Making and Organisational Learning

Organisations are considered to be sites for learning. Organisational learning is a natural and obvious process that takes place so that work runs smoothly. This takes place through practices such as participation in decision making (Billett, 2006). However, this has not yet been studied very profoundly. In this study, we emphasize on participation in decision making. The approach of using participation in decision

making as an important element of organisational learning at work has not been utilised.

Billett (2001) has argued that participation of employees in work related activities help in organisational learning. Participation enables individuals to gain knowledge and thus learn. Apart from gaining knowledge and skills, learning is the ability of employees to decide over work related matters (Vince, 2001). Organisational learning (OL) theorists argue that participation among members is key to OL. Organisations that actively seek participation of members in decision making enhance organisational learning. Research studies show that this helps to build capacity and leads to greater organisational effectiveness (Argyris and Schon, 1996; Shrivastava, 1983). Lopez, Peon and Ordas (2006) argue that employee participation fuels learning by individuals and this in turn sets the stage for OL (Dixon, 1994).

However, to the best of researchers' knowledge, this important association has not been verified in Indian public sector undertakings.

1.1.13 Organisational Learning and Multiple Commitments

Organisational learning refers to "an organisation skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights" (Garvin, 1993, p. 80). Previous studies have identified the role of OL in enhancing an employee's attitudes, i.e. commitment and satisfaction (Joo, 2010; Jo and Joo, 2011, Islam, Khan, Ahmad and Ahmed, 2014). However, the literature on the relationship between organisational learning and employee attitudes is not enough to make generalizations because these constructs have mostly been investigated in developed countries (Joo, 2010; Jo and Joo, 2011).

Theory of social exchange was introduced by Blau (1964) which states that there exists exchange relation between parties, when one party receives something valuable it tries to return to the giver with more or equal value. Theory of organisational support was introduced by Eisenberger, Huntington, Hutchison, and Sowa (1986) on the basis of "social exchange theory" and this theory states that when employees feel that their organisation is supporting them (with organisational learning

in this study), they show more positive attitudes and behaviours towards the organisation. Similarly, when employees perceive a supportive and learning culture they reciprocate in terms of their commitment and they offer higher-quality services (Pantouvakis and Bouranta, 2013). Barney (1986) commented that the importance of learning is vital for organisations as it not only clarifies the ways to accomplish an organisations stated outcomes, but also operates its business activities. Therefore, learning culture enhances an employee's positive job-related outcomes. A number of researchers in the past have identified that the role of organisational learning in enhancing an employee's positive job-related outcomes, i.e. organisational commitment (Islam et al., 2014; Atak and Erturgut, 2010).

According to Allen and Meyer (1996), organisational commitment is an employee's feelings for his/her organisation. Mowday, Porter and Steers (1982) further commented that an employee's commitment with the organisation is his/her mental connection with the organisation and is related to their behavioural investment. Therefore, understanding an employee's commitment in relation to learning is more important now than ever before, as it is recognized that commitment is both thematic and a constant measureable parameter (Mowday et al., 1982).

Employers employ people to perform tasks that boost efficiency of their organisation. It is quite natural on the part of employees to expect learning in organisations in return for their performance and productivity. Organisations that support learning have employees with significant levels of commitment (Bambacas, 2010). Highly committed group members maintain unity with their team members when they face threat (Ellemers, van Rijswijk, Bruins and de Gilder, 1998b). There has been very little or no research concerning organisation learning's effect on group commitment. Learning among employees helps build commitment within work teams in manufacturing firms in US (Kukenberger, et al., 2015). Possible extension of the existing knowledge base on group commitment is to verify the impact of organisation learning on group commitment.

1.2 Gap Areas

The review of literature revealed that there is a need to explain the causal relationship between organisational culture, trust, participation in decision making, job involvement, organisational commitment, and group commitment. Further, it is required to understand that how the variables, organisational culture, trust and participation in decision making, are related to job involvement, normative commitment, continuance commitment and group commitment. Accordingly, the gap areas identified are as follows:

- There have been few studies in the past (Lok and Crawford, 1999; Jha, 2011; Benlingiray and Sonmez, 2013) that highlight the importance of demographic variables on different forms of organisational commitment. However, to the best of researchers' knowledge, past studies have not considered the impact of demographic variables on different multiple commitment forms in a single framework. In addition, there is hardly any study done in Indian context in this regard. So this present study aims to look into this gap.

- Organisational culture has three main dimensions. Previous research such as one conducted by Chen (2004) verified the impact of bureaucratic, innovative and supportive cultures on organisational commitment. Hardly there are any studies which were conducted to understand the relationship between different types of culture on group commitment. This is important because individuals who are demographically distinct tend to cooperate in groups when collectivistic culture exists (Chatman and Spataro, 2005). Also, individuals develop a sense of obligation to work for their organisation which caters to their interests and problems. Thus, the present study will examine the relationship between organisational culture on group commitment.

- Organisational culture has been studied for its ability to foster organisational learning in Spanish Companies (Sanz-Valle, Naranjo-Valencia, Jimenez-Jimenez and Perez-Caballero, 2011). Similarly, Ahmad (2013) had suggested that the organisational culture and employee participation in decision making affects quality of work life. This is important to generate commitments towards work, group and organisation. In another study, Bigliardi, Dormio,

Galati and Schiuma (2012) had verified the effect of different types of organisational culture on job satisfaction in leading Italian organisations. However, the impact of organisational culture on normative commitment and continuance commitment has not been studied in leading Indian organisations.

Public sector undertakings have an unique manner of functioning, like, norms, forms of communication and interaction while performing tasks etc. Such uniqueness demands to study them more closely. Thus, the impact of culture on organisational learning in Indian context needs to be explored.

- It can be assumed that trust between employees and management would create favourable working conditions, which in turn, helps the employees to learn as it generates a supportive learning environment (Yeo and Li, 2011). It is generally understood that, when there are favourable working conditions, employees would never mind to stay long and serve the organisation. Moreover, they would be ready to go an extra mile to learn new things as the situation demands. It was studied and proved in business to consumer (B2C) companies in US (Swift and Hwang, 2013).

  The impact of trust is not just limited to organisation learning but it is also related to commitment. Trust helps to increase commitment of employees who are members of a work group (Shore, Tetrick, Lynch, and Barksdale, 2006). India is still a developing country, moreover entering into the globalized market place, where there exists tough competition. Under such special situations, the Indian organisations have to depend more on organisational learning than developed countries such as US. Hence, the impact of trust on organisational learning and group is yet to be analysed in an Indian context on a single framework, which was not done so far elsewhere.

- Participation in decision making has been studied recently in developed countries like Israel (Ornoy, 2010) and Canada (Appelbaum et al., 2013) for organisational outcomes like job satisfaction and organisational commitment. High PDM among employees gives rise to a good quality of work life (Wigboldus, Looise and Nijrot, 2008). This, in turn, leads to high group commitment within a work group (Shore, Randel, Chung, Dean, Ehrhart and

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Singh, 2011). There is a need to study the impact of PDM on multiple commitments. This is because employees may exhibit more than one form of commitment simultaneously in the organisation (Cohen, 2003, 1993). Hence, the present study will consider inquiring multiple commitments in a single framework.

- Relationship between organisational learning and organisational commitment forms has been studied in Australian context (Bambacas, 2010). Organisational learning has been examined for its outcomes only in one public sector (power) unit of India (Jyothibabu, Farooq and Pradhan, 2010). This study needs to be examined across other PSUs of India. However, to the best of researchers' knowledge, there is no study which has verified the relationship between organisational learning levels and commitment forms such as group commitment and job involvement.

- It was claimed that organisational culture is non-supportive for a positive learning environment in public sector organisations of India (Pillania, 2006). However, this finding is contradictory with recent research findings. Gupta and Pannu (2013) argue that organisational culture of public sector organisations is found to be supportive due to high job satisfaction levels. This is because employees have trust, openness, cooperation, teamwork and proactivity among themselves (Jain, 2013). This contradiction can be cleared by inquiring the organisational culture of the organisations.

1.3 Research Objectives

On the basis of the gaps found in the literature review, the following objectives have been formulated:

1.3.1 Primary Objectives

1. To study the impact of age, marital status, education and tenure on multiple commitments.
2. To verify the relationship between organisational culture and organisational learning, organisational culture and organisational outcome variables like

group commitment, job involvement, normative commitment and continuance commitment.

3. To examine the effect of trust on organisational learning, group commitment, job involvement, normative commitment and continuance commitment.

4. To explore the impact of participation in decision making on organisational learning and commitment variables such as group commitment, job involvement, normative commitment and continuance commitment.

5. To verify the relationship between organisational learning and multiple commitments like group commitment, job involvement, normative commitment and continuance commitment.

1.3.2   Secondary Objectives

1. To examine the interrelationship among multiple commitments.
2. To assess the mediating effect of organisational learning between organisational culture and commitment forms.

1.4 Theoretical Background and Hypotheses Development

Expectations can differ from one employee to another. For example, an employee may want to work in varied areas pertaining to his interests and enhance his skills. Some other employee who has the responsibility of immediate family members as well as distant family members would anticipate hike in payments. In addition, female employees may want some flexibility to certain extent in their work schedule and amounts of work. Also, education level of employees may help determine commitment level of employees to some extent. For example, an employee who is highly committed with a long tenure may opt for a job which is more intellectual and demanding in contrast to an employee who is less educated. These situations generate a need to study the importance of demographic factors in determining the organisational commitment of employees.

1.4.1 Age and Organisational Commitment

It is a natural tendency for an older aged individual to develop commitment more than their younger counterparts. Studies have found that there is positive relation between age and forms of commitment (Lawler, 1992; Simpson, 1985). A recent study in western context has put forth that age has positive relationship with continuance commitment and job involvement (Innocenti, Peluso and Pilati, 2012). In addition, research suggests that age shares positive relationship with other commitment forms like normative commitment and group commitment (Gaillard and Desmette, 2008). However, certain studies have suggested that there is weak relation between organisational commitment and age (Jena, 2015; Lok and Crawford, 1999). However, responsibilities and financial concerns will increase with age. Hence, affinity and loyalty towards the organisation will increase with age. There is hardly any study to highlight the impact of age on organisational commitment in public sector undertakings of India. So, the following hypotheses were formulated.

$H_{1(a,b,c,d)}$:   Age will be positively related to continuance commitment, normative commitment, group commitment and job involvement.

1.4.2 Marital Status and Organisational Commitment

Among demographic factors that can affect organisational commitment, marital status is one such factor. It can affect affective attachment and identification with the organisation and work groups (Metz, 2005). Research suggests that married employees performed better than their unmarried counterparts and exhibited good levels of continuance commitment, normative commitment and job involvement (Jena, 2015; Selmer and Lauring, 2011). Hrebiniak and Alutto (1972) pointed that married employees are committed more to their organisation in contrast to unmarried employees. Married people need more stability and financial security to be able to support their families. The effect of marital status on job involvement, group commitment as well as other forms of commitment needs to be investigated across public sector undertakings. Hence the following hypotheses were proposed:

$H_{2(a,b,c,d)}$:   Marital status will be positively related to continuance commitment, normative commitment, group commitment and job involvement.

1.4.3 Education and Organisational Commitment

Education has the ability to influence the level of job that an employee performs (Belingiray and Sonmez, 2013). Many studies have found significant relation between education and commitment forms (DeCottis and Summer, 1987; Mowday et al., 1982). Peterson and Xing (2007) suggested that employees with high levels of education tend to develop good normative commitment and job involvement. However, Lok and Crawford (1999) have found that there is no relation between education and organisational commitment. There is an ambiguity in the relationship between education and commitment forms which needs to be cleared. Nonetheless, education makes an individual sensible and rational. So, it is argued that level of education is likely to have significant impact on commitment forms. Hence the following hypotheses were formulated:

$H_{3(a,b,c,d)}$:   Education will be positively related to continuance commitment, normative commitment, group commitment and job involvement.

1.4.4 Tenure and Organisational Commitment

Researchers have suggested that tenure in any particular designation (Gregersen and Black, 1992; Mottaz, 1988) can influence organisational commitment. Also, organisational tenure has influenced organisational commitment in the past (Mathieu and Zajac, 1990). However, Steers (1977) and Jena (2015) have presented that tenure does not impact organisational commitment. This indicates an ambiguity in the relationship between tenure and organisational commitment. In India, employees receive good training in public sector undertakings (Jyothibabu, Farooq and Pradhan, 2010). So they are bound to perform better as they develop good skill sets. As tenure of an employee increases, his attachment may increase. This means a relatively more experienced employee's commitment is likely to be higher compared to his

counterparts (Kwon and Banks, 2004). This led to formulation of the following hypotheses:

$H_{4(a,b,c,d)}$:   Tenure will be positively related to continuance commitment, normative commitment, group commitment and job involvement.

Organisational culture forms an inevitable part of workplace. Participation in decision making is necessary for supportive human resource management practice. Group commitment and other forms of commitment are important constructs for organisation behaviour.

1.4.5 Organisational Culture, Multiple Commitments and Organisational Learning

There is rise in independence of employees in the present work environment. They get job offers from different organisations with better pay. This has led to wide range of options. So adjustments need to be done to retain employees (Hall and Moss, 1998). A good organisational culture needs to be present to build commitment in the employees towards the organisation (Levinson, 1994).

Culture is responsible for organisational success. It holds the values of the organisation. It influences outcomes of individuals such as commitment. Employees who experienced the desired cultural dimensions ended up being committed to the organisation (Boon, Arumugam, Safa and Bakar, 2007). It helps to retain valuable employees who help in growth of the organisation. People often prefer to work in groups. One of the factors which can influence the relationship among employees is its organisational culture. Group commitment emphasizes on the "collective" nature of work. It develops when there is good relationship among employees (Randall and Cote, 1991). Hence, the following hypotheses were proposed:

$H_{5(a)}$: Supportive culture will be positively related to group commitment.

$H_{5(b)}$: Bureaucratic culture will be positively related to group commitment.

$H_{5(c)}$: Innovative culture will be positively related to group commitment.

An employee would prefer to work in a culture that is willing to provide support for all his problems. This would encourage the employee to work with all his desire and bring out the best in oneself by effectiveness in results. Social support is expected by employees from their colleagues. A job involved person would be the one who is personally greatly affected by one's entire job related matters. Identification with the job will follow with support from members from the same organisation.

It is often necessary to get feedback after completing assigned work. Feedback from members will be useful in detecting the flaws of an individual and working on them to improve results. Ability to rely on each other can help increase identification of individual with his or her job (Shore, Tetrick, Lynch, and Barksdale, 2006). Formal procedures along with support would help ensure discipline in work schedule. Silverthorne (2004) pointed out that hierarchical work division can influence involvement to certain extent. It was also concluded that innovation can have an impact on job involvement since employees wish to learn to improve their skills. Thus the following hypotheses were proposed:

$H_{5(d)}$: *Supportive culture will be positively related to job involvement.*

$H_{5(e)}$: *Bureaucratic culture will be positively related to job involvement.*

$H_{5(f)}$: *Innovative culture will be positively related to job involvement.*

Normative commitment is defined as an employee's moral obligations to remain with an organisation (Allen and Meyer, 1990). It is based on the extent to which organisational culture is compatible with ideals of an employee (Meyer and Allen, 1997). Desire to stay with an organisation arises when an individual gets a work environment that allows him to work in teams, learn and innovate. This implies relationship between innovative culture and normative commitment has to be verified. This It helps him to share ideas as well as problems. Long term stability is one more factor that is found in supportive cultures. This can have significant relation with normative commitment (Chan, Snape and Redman, 2011). Also individuals will be obligated to stay with cultures that are hierarchical or bureaucratic (Meyer et al., 2012). Research suggests that there is no complete consensus on implications of a particular kind of culture on commitment. So hypotheses are developed based on

research findings so as to test them in public sector organisations where employees are generally found to be associated with the same organisation for over a decade.

$H_{5(g)}$: *Supportive culture will be positively related to normative commitment.*

$H_{5(h)}$:*Bureaucratic culture will be positively related to normative commitment.*

$H_{5(i)}$: *Innovative culture will be positively related to normative commitment.*

In an event of leaving the existing organisation and moving to another organisation, employees would not want to compromise on the costs and facilities. Stability, support, innovation and equal participation are psychological benefits that one looks for, in the work environment. Research links these supportive cultural values to long term commitment (Hackman and Oldham, 1980). Considerably less research has investigated continuance commitment and culture, but Clugston, Howell and Dorfman (2000) had found that employees who enjoy equal distribution of power have significant continuance commitment. Based on this theoretical support, the following hypotheses are framed:

$H_{5(j)}$: *Supportive culture will be positively related to continuance commitment.*

$H_{5(k)}$: *Bureaucratic culture will be positively related to continuance commitment.*

$H_{5(l)}$: *Innovative culture will be positively related to continuance commitment.*

Organisational culture may affect the behaviour of employees to a certain extent (Yiing and Ahmad, 2009). Hence, culture of an organisation must value the way employees are given freedom. It plays a key role in organisational learning by predicting its amount of relevance posed (Sanz-Valle et al., 2011). Silverthorne (2004) suggested that involvement in organisations that have bureaucratic culture resulted in the lowest levels organisational commitment compared to supportive and innovative cultures. However, he concluded that all three dimensions had influenced organisational learning. Also, focus on innovation is known to have significant effect on organisational learning (Sanz-Valle et al., 2011). This led to proposal of the following hypothesis:

$H_{5(m)}$: *Supportive culture will be positively related to organisational learning.*

$H_{5(n)}$: *Bureaucratic culture will be positively related to organisational learning.*

$H_{5(o)}$: Innovative culture will be positively related to organisational learning.

1.4.6 Trust and Multiple Commitments

Trust is a basic component of workplace. Without trust, people cannot benefit mutually. People have to rely on others while allocating work. This is necessary so that people feel valued at work. Trust has a very diverse existing literature. Trustworthy relationship is what an employee expects from the allied members while working with them together for a task. One would be vulnerable to the advice and action of others. The work outcome depends on the combined effort of all members instead of only a single member. Thus each one needs to be careful in implementing their effort. So all members together need to monitor each others efforts. This, in turn, can develop commitment towards the work group, job and organisation. Existing studies show that commitment has been widely researched in relation to trust (Wayne, Shore, Bommer and Tetrick, 2002; Allen, Shore and Griffeth, 2003; Appelbaum et al., 2013).

Research considers trust between employer and employee as a necessary factor to build commitment towards a common goal (Rogers, 1995). Trust between members of a work group facilitates identification with the work group. It also helps to increase commitment of employees who are members of a work group (Shore et al., 2011). They work together and put in more effort with cooperation. It has been suggested that knowledge (cognitive trust) and bonding (affective trust) among members of a work group helps in the success of the work group. It facilitates commitment towards the work group as this increases the group performance and productivity (Cho and Poister, 2013). This led to development of the following hypotheses:

$H_{6(a)}$: Affective trust will be positively related to group commitment.

$H_{6(b)}$: Cognitive trust will be positively related to group commitment.

Studies have identified trust as the most significant variable in fostering work-related behaviours (Konovsky and Pugh, 1994; Kramer, 1999). Organisations which are perceived as trustworthy by their employees witness effectiveness in job performed by them (Cho and Poister, 2013). These employees tend to stay longer in

their organisations. Trust helps them to rely on their colleagues in the event of difficulties of performing any job. Cognitive trust reduces the risk of receiving any negative outcome. Affective trust reduces any unexpected negative behaviour of colleagues. It can be logically deduced that trust between employer and employee can determine the extent to which the employee identifies with his or her job. Thus, the following hypotheses were developed to examine the same.

$H_{6(c)}$: *Affective trust will be positively related to job involvement.*

$H_{6(d)}$: *Cognitive trust will be positively related to job involvement.*

Supportive behaviour in management can help set up a trustworthy relationship that can measure organisational commitment (Perryer and Jordan, 2005). This study was carried out in public sector context without considering normative and continuance components. However, it did not measure trust explicitly since it focused on leader behaviour. Research shows that trust in supervisor correlates with organisational commitment (Mulki, Jaramillo and Locander, 2006). In these studies, affective and cognitive components of trust were not tested for their impact on commitment. Also, continuance and normative components of commitment have an increased importance as suggested by existing literature (Kell and Motowildo, 2012). Thus, it seems worthwhile to examine the impact of affective and cognitive trust on normative and continuance commitments. The following hypotheses are framed:

$H_{6(e)}$: *Affective trust will be positively related to normative commitment.*

$H_{6(f)}$: *Cognitive trust will be positively related to normative commitment.*

$H_{6(g)}$: *Affective trust will be positively related to continuance commitment.*

$H_{6(h)}$: *Cognitive trust will be positively related to continuance commitment.*

1.4.7 Trust and Organisational Learning

People should offer to help each other in the event of difficulties, more importantly, when learning occurs. Trust increases confidence among members in carrying out work. Few studies suggest that learning can initiate in an organisation only when people trust each other (Levin and Cross, 2004; Renzl, 2008). Trust has different

facets like affective and cognitive, which have necessary impact on learning between individuals (Chowdhury, 2005). It was concluded that both facets of trust are important to create an organisational learning environment (Swift and Hwang, 2013). Hence, the following hypotheses were devised:

$H_{6(i)}$: *Affective trust will be positively related to* organisational learning.

$H_{6(j)}$: *Cognitive trust will be positively related to* organisational learning.

1.4.8 Participation in Decision Making and Multiple Commitments

Employees who actively participate in decision making can be motivated to deliver better performances at workplace. Strategic importance of commitment is not new (Wazir, 1985). Participation in decision making is is the extent to which an individual has his or her influence in taking decisions (Knoop, 1995). One feels very happy when his opinion is considered while making decisions.

Correlation between participation in decision making and commitment is indicated by research (Louis and Smith, 1992). This behaviour, in turn, is due to employees' level of inspiration at workplace. When an employee participates in decision making with members of his or her work group, it helps in identifying himself more with the work group. Those who actively participate in decisions show relatively high levels of commitment (Giri and Kumar, 2013). Participation in decision making facilitates group performance (Chen, Kirkman, Kanfer, Allen and Rosen, 2007). Participation in decision making may positively impact group commitment (Kukenberger, et al., 2015). Group commitment is likely to be strong when individuals work together and sharing equal participation in all work related matters. Thus, the following hypothesis was proposed:

$H_{7(a)}$: *Participation in decision making will be positively related to group commitment.*

The process of influence by participation may help to strengthen employees' identification of employees with the job and organisational goals (Moye and Henkin, 2006). Research shows that employees who participate in decisions have relatively

higher levels of job involvement (Boon, Arumugam, Safa and Bakar, 2007). Few senior employees enjoy a higher level of decision making as compared to the other members. Hence this supports the development of following hypothesis:

$H_{7(b)}$: *Participation in decision making will be positively related to job involvement.*

Normative commitment is the belief that employee thinks that he ought to work for the organisation. It may be based on an obligation that arises out of social pressure. Moreover, societal or cultural association of the employee also has a significant impact on normative commitment. The ability to participate in decision making may influence an employee's perception of interpersonal relationship with his supervisor. This perception, in turn, can enhance the obligation (Garcia-Cabrera and Garcia-Soto, 2012).The level of participation may become a deciding factor for an individual to prefer working for an organisation in order to enhance his or her professional skills. Hence, the following hypothesis was formulated:

$H_{7(c)}$: *Participation in decision making will be positively related to normative commitment.*

Continuance commitment increases over time as people accumulate side bets or personal investments like seniority rights and attractive benefits that would fall at risk on leaving a job (Mathieu and Zajac, 1990). Participation in decision making often involves managers taking opinion from employees before taking final decisions (Giri and Kumar, 2013). In this way, delegation or transfer of decision-making power comes to employees. Committed employees are expected to prefer to stay with the work and organisation for attainment of organisational as well as personal goals. This can be examined by framing the following hypothesis:

$H_{7(d)}$: *Participation in decision making will be positively related to continuance commitment.*

1.4.9 Participation in Decision Making and Organisational Learning

Participation in decision making creates arenas that facilitate ties among individuals with different goals and experiential backgrounds (Chattopadhyay, Glick, Miller and Huber, 1999). Increase in participation in decision making leads to an increased sharing of existing knowledge among employees relevant to the functioning of the organisation (Huber, 1991). Organisations that support participation in decision making can aide learning (Kuo, 2011; Ford, 2006). Participation brings individuals together on a common platform where they feel free to share information and learn together. This led to the proposal of the following hypothesis.

$H_{7(e)}$: *Participation in decision making will be positively related to organisational learning.*

1.4.10 Organisational Learning and Multiple Commitments

Learning occurs with shared understanding and group dynamics of the members in a work group (Senge, 1990). Sharing experiences with others may be able to facilitate group commitment. Doing work collectively may bring identification of individuals with their work group. Also commitment is having identification and involvement with the job. Existing literature shows group commitment and organisational learning positively correlate with each other (Limpibunterng and Johri, 2009). Learning within a work group may benefit involvement with the job and group (Johnson and Yang, 2010). Individuals wish to improve and refine their skills with job experience. Anyone who would be aware of work issues would want to come up with solutions from one's own understanding of the job. Job involvement arises as the individual gains knowledge while working in the organisation. Social support and sharing of relevant information for job is supposed to enhance job involvement (Silverthorne, 2004). This led to the formulation of the following hypotheses:

$H_{8(a)}$: *Organisational learning will be positively related to group commitment.*

$H_{8(b)}$: *Organisational learning will be positively related to job involvement.*

Anything that increases the quality of one's work experiences, especially one's sense of autonomy and personal competence, can increase affective organisational commitment (Meyer and Allen, 1991). Level of commitment had improved when organisations provided continuous learning to managers (Bambacas, 2010). So it can be deduced that learning provided by organisations can improve levels of commitment in employees. Support, motivation, training and their perceived benefits determine the level of obligation (normative commitment) and attitudes to continue working with the same organisation (continuance commitment). Thus the following hypotheses were proposed:

$H_{8(c)}$: Organisational learning will be positively related to continuance commitment.

$H_{8(d)}$: Organisational learning will be positively related to normative commitment.

1.4.11 Interrelationship among Multiple Commitments

Evaluating the impact of extent of decision making in one's work group on attachment with the organisation is very important for the organisation's long term performance. Blau and Boal (1989) had suggested that job involvement is a very stable attitude. Chen and Chiu (2009) argued that employees with a high degree of job involvement perform effectively in jobs and display commitments with the organisation. Work group of an individual is important for his orientation towards work (Lodhal and Kejner, 1965). Interrelationship is suggested to be present between group commitment and job involvement (Randall and Cote, 1991). This is supported in Canadian and Israeli cultures (Cohen, 2003) and in Indian educational settings (Kumar and Giri, 2013). Hence, more research in Indian context is warranted so that PSUs can also benefit. Employees who are involved in their job tend to display positive work experiences and organisational behaviours. There are very few studies to establish the impact of job involvement on group commitment.

Job involvement has been identified as affecting a considerable number of employee outcomes (Kanungo, 1982). Job involvement is defined as the degree of importance of one's job to one's self-image (Lawler and Hall, 1970; Kanungo, 1982). Job involvement, group commitment and organisational commitment all refer to

positive work attachment. These three different commitment forms are used in this study. Commitment forms are expected to differ in the way they relate to the work outcomes (Mueller, Wallace and Price, 1992). Morrow (1993) argued that each commitment is independent or antecedent or consequence of another. This is a major unanswered question which has to be verified. Nevertheless, a few studies have investigated the relationship among the commitment forms.

Meyer, Stanley, Herscovitch and Topolnytsky (2002) had done a meta-analysis and suggested that there is a correlation between normative commitment and continuance commitment. Research suggests there is a relationship between job involvement and normative commitment as well as job involvement and continuance commitment (Meyer, Stanley al, 2012; Kuruuzum, Cetin and Irmak, 2009). Since continuance commitment is related to the monetary benefits as well as facilities that one experiences, it is likely to expect that group commitment may determine continuance commitment upto a certain extent. It is very natural for an employee to expect support and benefits from his or her organisation. If an employee receives attractive side-bets, it is quite unlikely for him or her to leave. Rather, he will develop obligation to work for the organisation. To examine these relationships, causal pathways that exist between job-related and organisational variables are mostly unconfirmed (Swailes, 2002). Hence, interrelationship among multiple commitments was examined by proposing the following hypotheses:

H_9(a): Job involvement will be positively related to group commitment.

H_9(b): Job involvement will be positively related to normative commitment.

H_9(c): Job involvement will be positively related to continuance commitment.

H_9(d): Group commitment will be positively related to continuance commitment.

H_9(e): Normative commitment will be positively related to continuance commitment.

1.4.12 Organisational Learning as a Mediator

According to Baron and Kenny (1986), a variable can act as a mediator when the following terms are met: (a) significant levels of variation in the presumed mediator is

caused by varying levels of the independent variable, (b) significant variations in the dependent variable caused by the presumed mediator and (c) a previous significant relation between a dependent variable and independent variable becomes less significant due to the presence of presumed mediator.

Trust is a social component in organisations that ensures teamwork. Trust among employees is essential to build team commitment (Shore et al., 2006) and it also facilitates organisational learning (Swift and Hwang, 2013). A positive learning environment is, in turn, known to develop team commitment (Kukenberger et al., 2015).

Organisations emphasize on gaining knowledge while performing their business. Raj and Srivastava (2013) argue that organisational learning has a mediating impact in the relationship between supportive, innovative organisational culture and HRM practices that are responsible for generating commitment forms (Gellatly, Hunter, Currie and Irving, 2009). This is due to the fact that learning boosts the confidence level of employees and they feel a sense of commitment to their organisations (Bigliardi et al., 2012). Thus it can be logically deduced from existing literature that OL can act as mediator between organisational culture and commitment that generates identification with job and organisation. The mediating nature of organisational learning levels on the relationship between organisational culture and commitment forms has not been examined. Thus the following hypotheses were developed:

$H_{10(a)}$: *Organisational learning will mediate the relationship between supportive culture and group commitment.*

$H_{10(b)}$: *Organisational learning will mediate the relationship between supportive culture and job involvement.*

$H_{10(c)}$: *Organisational learning will mediate the relationship between innovative culture and group commitment.*

$H_{10(d)}$: *Organisational learning will mediate the relationship between innovative culture and job involvement.*
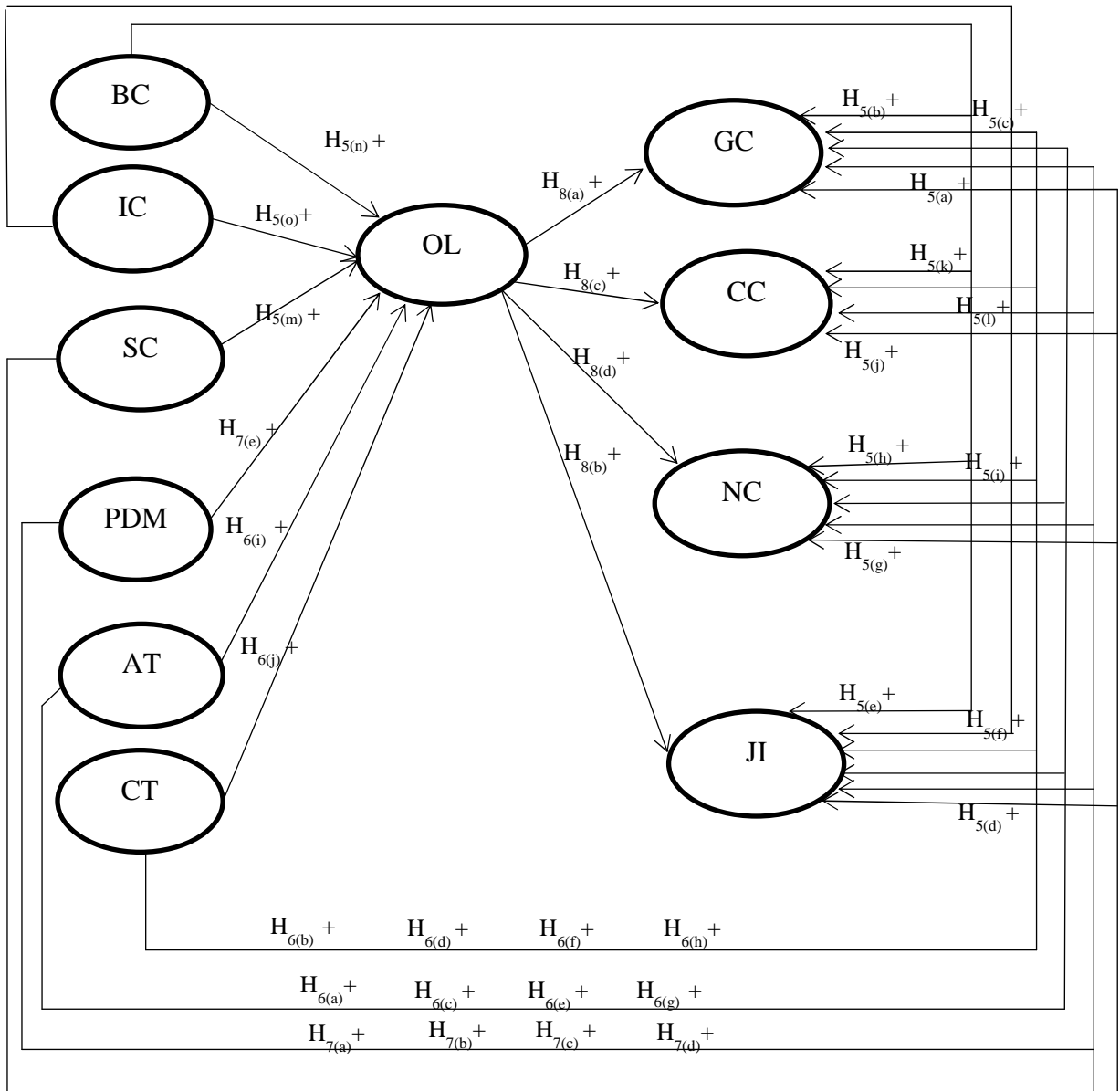
Figure 1.1: Conceptual Model

Note: + denotes positive impact. SC – Supportive Culture, IC – Innovative Culture, BC – Bureaucratic Culture, PDM – Participation in Decision Making, AT – Affective Trust, CT – Cognitive Trust, OL – Organisational Learning, GC – Group Commitment, JI – Job Involvement, CC – Continuance Commitment, NC – Normative Commitment.
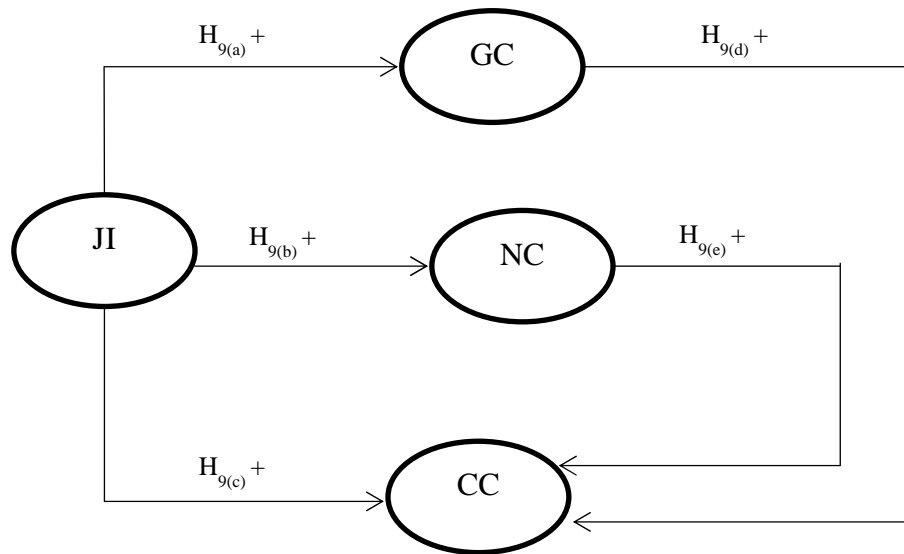
Figure 1.2: Conceptual Model Showing Interrelationship among Multiple
Commitments

Note: + denotes positive impact. GC – Group Commitment, JI – Job Involvement, CC
– Continuance Commitment, NC – Normative Commitment.

CHAPTER 2

METHOD

CHAPTER 2

METHOD

2.1 Research Design

Any research can have three options for methodology: qualitative, quantitative or mixed. Quantitative approach is opted due to three important reasons. Firstly, quantitative research instruments selected for this study are validated and questions in the instruments suited well for target sample in India. Secondly, organisational learning, participation in decision making, trust and commitment scales have established validity and reliability. Hence, it is justified to use them for present research. Finally, target respondents belong to a sector that is highly valued for efficiency and productivity. Hence, survey responses would help maintain objectivity in results.

Studies on quantitative research suggest that scientific hypotheses are free from researchers' own values and bias (Robson, 1993). Results from qualitative approaches are believed to contain less influence of subjective preferences (Robson, 1993). This is because statistical calculations are necessary to analyze quantitative data which do not involve personal preferences (Tanner, 2007). Hence results are evaluated with more objectivity as researcher remains detached.

The challenge in this study was to use research instruments that should be easily understood by participants. The instruments were also supposed to be robust enough to collect comprehensive data needed for analysis by maintaining participation interest. They also had to be short enough to maintain interest and yet extract all possible information for comprehensive measurement. The intended result of this quantitative data analysis was to document the entire study procedure in a proper manner to ensure its repeatability in possible future applications at any public sector undertaking.

Data were gathered and analyzed from many respondents using the survey instruments mentioned in the following section. A challenge to collect appropriate responses was to use comprehensive research instruments that could be easily understood by respondents. A seven step research process was used to design the

methodology. Step 1 consists of formulating hypotheses and selecting instruments to gather data. Step 2 consists of a pilot study with 40 respondents. Step 3 is sampling. This includes the method or approach involved in identifying target respondents. Step 4 involves administering the instruments to the respondents in the identified organisations. Step 5 is analysis of collected data. Step 6 involves conclusions from data gathered. Step 7 includes recommendations for future studies.

2.2 Sampling

There are 97 public sector undertakings (PSUs) across all regions in India. This was divided into four geographic strata: east, west, north and south. Next, organisations from each strata were assigned numbers separately. Request letters were sent to three organisations in each strata. However, six organisations from all four strata responded to the requests. Reasons for denying permission for collecting responses included privacy concerns in HR policies laid down by the organisations. In addition, these six organisations agreed to the request of collecting data from their employees on the condition of not revealing the organisations' names. Hence, their names are not revealed in this study.

The survey technique for collecting demographic data consisted of a questionnaire including the following items: gender, age, level of education, years with the organisation, position level and type of position (administrative support). Respondents were selected from the target population as a convenience sample. Convenience sampling is a well established sampling method that is employed in social science research (Raj and Srivastava, 2013; Miller, 2014; Chen and Chiu, 2009). Care was taken to include respondents from the six organisations that covered all parts across India. These responses were collected from employees belonging to managerial cadre working in Indian public sector undertakings. These organisations belonged to bauxite, petroleum and heavy industries located in the states covered were Orissa, Madhya Pradesh, Delhi, West Bengal, Assam, Maharashtra and Karnataka. Responses were obtained through a questionnaire with multiple choice questions from which the participants selected the alternative that better represented their opinion. A Likert rating scale was used, which according to Hernandez,

Fernandez and Baptista (2010), is one of the most popular scales to measure variables that constitute attitudes. The statements included were intended to be able to test the hypotheses proposed by the investigator to answer the research questions.

An acceptable sample size is 10:1 for the number of observations per variable (Hair, Black, Babin and Anderson, 2006; Kline, 2015). A sample size calculator calculated 664 or more samples for a confidence level of 99%, confidence interval of 5%. This research has 712 samples which is good enough considering ten variables in this study. Pilot test was performed after finalising survey instrument. Responses of 40 employees were considered. They were requested to respond to all the questions of the survey and comment on problems they find. After reviewing their queries, certain questions were found to be unclear. Those questions were rewritten with care to suit to the best understanding of the respondents. These questions were then incorporated into the questionnaire and administered to the respondents.

2.3 Measures

Wallach's (1983) organisational culture index (OCI) incorporates a list of 24 items measuring bureaucratic, innovative and supportive cultures. A five-point likert scale was used to measure the items ranging from "describes my organisation most of the time" to "does not describe my organisation". A sample item is "Mutual trust and loyalty is the glue that holds my organisation together".

Van Veldhoven and Meijman (1994) developed a scale to measure participation in decision making. It has 8 items that are measured using a five-point likert scale ranging from "always" to "never". A sample item is "Can you discuss work problems with your superior?".

McAllister's (1995) scale for trust is used. It has 5 items that measure affective trust (AT) and 6 items that measure cognitive trust (CT). The items were measured on a 5-point likert scale ranging from "strongly agree" to "strongly disagree". A sample item includes "I have a sharing relationship with my colleagues. We freely share our ideas, feelings and hopes."

The scale developed by Bontis, Crossan and Hulland (2002) measures organisational learning (OL) having 10 items. All items were measured on a five-point likert scale ranging from "strongly agree" to "strongly disagree". A sample item is "My organisational structure allows us to work effectively".

Ellemers, de Gilder and Heuvel's (1998a) scale is used for measuring group commitment (GC). It consists of 7 items. All items were measured on a five-point likert scale ranging from "strongly agree" to "strongly disagree". A sample item is "I am prepared to do additional work when this benefits my work team".

Meyer and Allen's (1991) scale is used to measure normative commitment (NC) and continuance commitment (CC). This scale has 8 items each measured against a five-point likert scale ranging from "strongly agree" to "strongly disagree". A sample item is "I would be very happy to spend the rest of my career with this organisation".

Kanungo's (1982) scale is used for measuring of job involvement (JI). It has 10 items. All items are measured on a five-point likert scale ranging from "strongly agree" to "strongly disagree". A sample item is "I am very much involved personally in my job".

2.4 Test Administration

Survey instruments designed for this study were distributed among the employees of different public sector undertakings after obtaining permission from the head of Human Resource Development Departments of each organisation. The subjects were instructed to refer to their current organisation and fill out the instrument that asked a range of questions about their organisational culture, trust, their extent of decision making and commitment towards job, work group and organisation. All the questions in the survey were in English language.

Appendix A contains the final questionnaire, which is divided into three sections. The survey instrument consisted of demographic information like gender, age, marital status, highest qualification etc. The next part of the survey was divided into three sections – A, B and C. Section A was divided into three sub parts. Section

A(I) consisted of items measuring organisational culture. Section A(II) consisted of items measuring participation in decision making. Section A(III) consisted of items measuring two dimensions of trust – affective trust and cognitive trust. Section B consisted of items measuring organisational learning. Section C consisted of items measuring the dimensions of organisational commitment – continuance, normative commitment. It also consisted of items measuring group commitment and job involvement.

The sample consists of employees from different departments, namely, HRD and Training, Finance, Electrical, Instrumentation, Civil, Environment, Tender and Contract, Sales, Production, Chemical, Lab, Research and Development, Safety, Materials, Systems, TQM, Operations, Power Plant, Civil Maintenance, Mechanical, Chemical and a few other technical departments. Participation of employees in this study was voluntary. Respondents were asked not to disclose their identities so that the identities are anonymous. They were requested to respond to all the questions. It took a maximum of forty-five minutes to completely respond to the survey. The filled questionnaires were collected over duration of five days from each of the organisations.

2.5 Sample Characteristics

The population for this study comprised exclusively of all management cadre employees. E1-E3 cadre is classified as entry-level management, E4-E5 is categorised as middle level management and E6-E8 cadre is considered as senior level management. Non-management cadre has a different set of designation which does not lie in our target population.

Responses were collected from employees based on convenience. There are evidences that suggest usage of convenience samples is reliable for such studies (Devece, Marques and Alguacil, 2016; Limpibunterng and Johri, 2009; Miller 2014). The sample for this study included executives of different departments, namely, electrical, mechanical, instrumentation, finance etc. Participation in the study was voluntary and identities of participants were kept anonymous. Out of the 1100 survey

questionnaires distributed, 920 (i.e., 84 percent) questionnaires were received back. After rejecting the incomplete questionnaires, 712 (i.e., 65 percent) questionnaires were retained for the study. The average years of work experience across all levels of management was 14.14 years. Table 2.1 presents the sample characteristics.

Table 2.1: Sample Characteristics

Items		Percentage
Gender	Male	95.6
	Female	4.4
Age Group	21-30 years	19.4
	31-40 years	39.3
	41-50 years	27.9
	51-60 years	13.3
Marital Status	Single	15
	Married	85
Qualification	B.E./B.Tech	61.3
	M.E./M.Tech	36.2
	Ph.D.	2.5
Level of Management	Entry	44
	Middle	44
	Senior	12.1
Maximum Tenure		
With present employer	33 years	
Total work life of employee	37 years	

2.6 Statistical Tools and Techniques for Data Analysis

Statistical Package for Social Sciences (SPSS) and Analysis of Moments Structure (AMOS) were used to analyze the data. The statistical analyses such as obtaining descriptive statistics, developing the correlation matrix, and calculating Cronbach's alphas of the various measures used in this study were analyzed using SPSS. Analysis and model fit tests were carried out on the structural model based on the hypotheses that emerged out of literature review. Various Goodness-of-Fit indices as provided by AMOS were utilized for this study (Arbuckle and Wothke, 1999). The competing models were tested. Based on the results, conclusions were made regarding acceptance.

CHAPTER 3

RESULTS

CHAPTER 3

RESULTS

3.1 Introduction

Characteristics about the measuring instruments, population, sample characteristics and procedure used to collect data have been mentioned in the previous chapter. This chapter describes about descriptive statistics, reliability estimation, correlation analysis, confirmatory factor analysis and hypotheses testing through structural equation modeling.

3.2 Results of Hypotheses H_1 to H_4

3.2.1 Testing Hypotheses $H_{1(a)}$ to $H_{1(d)}$

One-way analysis of variance (ANOVA) and t-test were performed to determine the impact of demographic factors on multiple commitments. For testing hypotheses $H_{1(a)}$ to $H_{1(d)}$, a one-way ANOVA was performed to determine if age can influence commitment forms. Subjects were divided into four groups as suggested by Jyothibabu et al. (2010) (group 1: 21-30 years; group 2: 31-40 years; group 3: 41-50 years; group 4: 51-60 years).

Statistically significant differences were found at $p<.05$ level in continuance commitment and job involvement scores for the three age groups. The assumption of homogeneity of variances was tested and found tenable using Levene's test, (F(3,708) = 3.67, $p=.01$ after testing hypothesis $H_{1(a)}$ and F(3,708) = 7.35, $p=.00$ after testing hypothesis $H_{1(d)}$). Post-hoc comparisons using the Tukey test indicated that the mean score of continuance commitment for group 1 (Mean = 3.73, S.D. = .67) was significantly different from group 3 (Mean = 3.81, S.D. = .73). Therefore, hypothesis $H_{1(a)}$ was accepted. Post-hoc comparisons using the tukey test indicated that the mean score of job involvement for group 1 (Mean = 3.48, S.D. = .62) was significantly different from group 2 (Mean = 3.67, S.D. = .58) and group 3 (Mean = 3.62, SD = .54) was significantly different from group 4 (Mean = 3.39, SD = .65). Also, mean scores of job involvement for group 4 (Mean = 3.39, S.D. = .65) was significantly

different from that of group 2 (Mean = 3.67, S.D. = .58) and group 3 (Mean = 3.62, S.D. = .54). Hence, hypothesis $H_{1(d)}$ was accepted.

However, there was no statistically significant difference at $p<.05$ level in normative commitment and group commitment scores for all the age groups: $F(3,708) = 2.22$, $p=.08$ for hypothesis $H_{1(b)}$ and $F(3,708) = 7.35$, $p=.43$ for hypothesis $H_{1(c)}$. So hypotheses $H_{1(b)}$ and $H_{1(c)}$ were refuted.

3.2.2 Testing Hypotheses $H_{2(a)}$ to $H_{2(d)}$

An independent samples t-test was done to evaluate the impact of marital status on multiple commitments. There was no significant difference in scores of all commitment forms for both married and single employees. Thus hypotheses $H_{2(a)}$, $H_{2(b)}$, $H_{2(c)}$ and $H_{2(d)}$ were refuted.

3.2.3 Testing Hypotheses $H_{3(a)}$ to $H_{3(d)}$

A one-way ANOVA was performed to determine if education can influence commitment forms. There was statistically significant difference at $p<.05$ level in affective, continuance and normative commitments scores for diploma, graduate, post graduate and Ph.D. The assumption of homogeneity of variances was tested and found tenable using Levene's test, $F(3,707) = 4.38$, $p=.005$ for continuance commitment, $F(3,707) = 10.56$, $p=.00$ for normative commitment. The mean score of continuance commitment for graduates (Mean = 3.69, S.D. = .62) was significantly different from that of post graduates (Mean = 3.86, S.D. = .64). In addition, mean score of normative commitment for graduates (Mean = 3.44, S.D. = .64) was significantly different from post graduates (Mean = 3.71, S.D. = .66) and post graduates (Mean = 3.71, S.D. = .66) significantly differed from diplomas (Mean = 3.16, S.D. = .81). Hence hypotheses $H_{3(a)}$ and $H_{3(b)}$ were accepted. However, no significant differences were generated in group commitment and job involvement scores for the four education groups. Hence, hypotheses $H_{3(c)}$ and $H_{3(d)}$ were refuted.

3.2.4 Testing Hypotheses $H_{4(a)}$ to $H_{4(d)}$

To test hypotheses $H_{4(a)}$ to $H_{4(d)}$, a one-way ANOVA was conducted again to determine the impact of tenure on organisational commitment forms. Employees were divided in groups according to their tenure in the organisation. There was statistically significant difference at $p<.05$ level in continuance and normative commitments, group commitment and job involvement scores for six groups of employees with different tenures (group 1: less than 5 years, group 2: 5-10 years, group 3: 11-15 years, group 4: 16-20 years, group 5: 21-25 years, group 6: 26 years and above). The assumption of homogeneity of variances was tested and found tenable using Levene's test, $F(5,704) = 2.64$, $p = .02$ for continuance commitment, $F(5,704) = 6.81$, $p=.000$ for normative commitment, $F(5,704) = 2.28$, $p=.04$ for group commitment and $F(5,704) = 9.21$, $p=.000$ for job involvement. Post-hoc tests were performed to evaluate the differences. Tests revealed that mean score of continuance commitment for group 3 (Mean = 3.88, S.D. = .63) was significantly different from that of group 6 (Mean = 3.58, S.D. = .52) . The mean score of normative commitment for group 1 (Mean = 3.56, S.D. = .69) differed significantly from that of group 5 (Mean = 3.22, S.D. = .75) and group 6 (Mean = 3.28, S.D. = .56), group 3 (Mean = 3.88, S.D. = .63) differed significantly from that of group 5 (Mean = 3.22, S.D. = .75) and group 6 (Mean = 3.28, S.D. = .56), group 4 (Mean = 3.67, S.D. = .66) differed significantly from that of group 5 (Mean = 3.22, S.D. = .75) and group 6 (Mean = 3.28, S.D. = .56), group 5 differed significantly from that of group 3 Mean = 3.88, S.D. = .63) and group 4 (Mean = 3.67, S.D. = .66), group 6 (Mean = 3.28, S.D. = .56) differed significantly from that of group 1(Mean = 3.56, S.D. = .69), group 3 (Mean = 3.88, S.D. = .63) and group 4 (Mean = 3.67, S.D. = .66). The mean score of group commitment for group 4 was significantly different from that of group 6. Also, the mean score of job involvement for group 1 (Mean = 3.56, S.D. = .69), group 2 (Mean = 3.63, S.D. = .61), group 3 (Mean = 3.88, S.D. = .63) and group 4 (Mean = 3.67, S.D. = .66) each was significantly different from that of group 6 (Mean = 3.28, S.D. = .56). Hence hypotheses $H_{4(a)}$, $H_{4(b)}$, $H_{4(c)}$ and $H_{4(d)}$ were accepted.

Table 3.1: Overview of ANOVA and t-test Results

Hypotheses	Description	Results
$H_{1(a)}$	Age → continuance commitment	Accepted
$H_{1(b)}$	Age → normative commitment	Refuted
$H_{1(c)}$	Age → group commitment	Refuted
$H_{1(d)}$	Age → job involvement	Accepted
$H_{2(a)}$	Marital status → continuance commitment	Refuted
$H_{2(b)}$	Marital status → normative commitment	Refuted
$H_{2(c)}$	Marital status → group commitment	Refuted
$H_{2(d)}$	Marital status → job involvement	Refuted
$H_{3(a)}$	Education → continuance commitment	Accepted
$H_{3(b)}$	Education → normative commitment	Accepted
$H_{3(c)}$	Education → group commitment	Refuted
$H_{3(d)}$	Education → job involvement	Refuted
$H_{4(a)}$	Tenure → continuance commitment	Accepted
$H_{4(b)}$	Tenure → normative commitment	Accepted
$H_{4(c)}$	Tenure → group commitment	Accepted
$H_{4(d)}$	Tenure → job involvement	Accepted

3.3 Structural Equation Modeling

Structural equation modeling (SEM) is a multivariate statistical tool that takes a confirmatory factor analysis (CFA) of the data. The biggest strength of structural equation modeling is it can simultaneously test measurement and structural relationships among a set of variables. In other words, it includes both measurement and structural models. SEM is more flexible than other multivariate techniques. It is because SEM allows us to verify multiple dependent relationships between variables simultaneously. The hypothesized causal relationships were tested by using AMOS software.

The present study tested the hypothesized model fit to the data using SEM technique. The proposed model consisted of Organisational Culture (OC) with three sub-dimensions: Supportive, Innovative and Bureaucratic cultures, Trust with two sub-dimensions: Affective and Cognitive trust, Participation in Decision Making, Organisational Learning, Group Commitment, Job Involvement, Continuance Commitment and Normative Commitment.

Testing and analysis of the model were conducted through the following approaches. First the proposed model analyses were conducted using covariance and the most widely used maximum likelihood estimation method using AMOS. Second, the model development strategy was followed using model respecification procedure aimed to identify the source of misfit and then generate a model that achieves better fit to the data (Byrne, 2001).

3.4 Measurement Model

Measurement model and structural model are the two distinct components of SEM. The measurement model is that part of SEM which deals with the latent (unobserved) variables and their indicators (observed) variables. The measurement model is evaluated by using CFA. According to Garson (2005), the pure measurement model is a CFA model. CFA focuses on the link between latent variables and their measured variables (indicators) within the SEM framework (Byrne, 2001).

The evaluation of confirmatory measurement models have to be done first and specified. Then, the final measurement models should be examined followed by examination of structural equation models (Garver and Mentzer, 1999). The evaluation and analysis of each and every latent variable has to be done separately. This is done through a series of model identification steps. Thereafter, the overall measurement models have to be tested. A final model is produced by evaluating all the latent variables together. Goodness-of-Fit measures are used to evaluate the measurement model. Therefore, validation of measurement model has to be done first before proceeding to test and analyze the structural model (Garson, 2005).

A model may fit properly on a particular fit index but it may not fit on other indices. Hence, many model fit indices have been examined for the present study. Based on the recommendations of Hu and Bentler (1995) and Hair, Black, Babin, Anderson and Tatham (2006), the selection of indices for this study was done. To achieve goodness of fit for the empirical data, both the measurement model and structural model have to meet the requirements of selected indices. Following the suggestions of McIntosh (2007), the first overall test of model fit selected was chi-square test. A significant chi-square indicates a poor model fit. Chi-square test is extremely sensitive to sample size (Bentler, 1990). Thus, chi-square normalised by degrees of freedom (χ^2/df) was used. An acceptable ratio for χ^2/df value should be less than 3.0 (Hair et al., 2006).

A researcher should always mention at least one incremental fit index, one absolute fit index and at least one badness-of-fit index in addition to the chi square value (Hair et al., 2006). Absolute fit measures and incremental fit measures are the two major types of overall fit measures (Byrne, 1998). Absolute fit indices evaluate how well a hypothesized model fits the sample data by comparing the model to an alternative model and measure the goodness-of-fit index (Hoyle and Panter, 1995). Incremental fit indices compare the hypothesized model with a restricted, nested baseline model.

The Goodness-of-Fit Index (GFI) is an absolute fit index. It compares the hypothesized model with no model at all (Hu and Bentler, 1995). GFI ranges from 0 to 1, with values close to 1 indicating good fit. Fan, Thompson, and Wang (1999)

cautioned that GFI can be influenced by the sample size. Comparative Fit Index (CFI) are incremental or comparative indices. Incremental index compares the hypothesized model against some standard model. Values for CFI range from 0 to 1. A value greater than .90 is considered as representative of a well-fitted model (Bentler, 1990). If the values are high, it indicates that the model under consideration has better fit than an alternate model (Hu and Bentler, 1995).

Root Mean Square Error of Approximation (RMSEA) was chosenfor the Badness-of-Fit index. It often provides consistent results across different estimation approaches (Sugawara and MacCallum, 1993). RMSEA index is an extremely informative criterion. It measures the discrepancy between the observed and estimated covariance matrices per degree of freedom (Steiger, 1990). It measures the discrepancy in terms of the population and not the sample. Thus, the value of this fit index is expected to better estimate the population and not be affected by sample size. Again, values run on a continuum from zero to 1.00. Values less than .06 indicate good fit, values up to .08 reasonable fit, and values between .08 and .10 indicate mediocre fit.

Chi-square (χ^2) test is the most common way to evaluate goodness-of-fit. χ^2 indicating non-significance means there is a negligible difference between the actual and predicted matrices (Hair et al., 2001). This would point to a good fit. However, χ^2 test has a limitation. It is highly sensitive to sample size greater than 200. Thus, the ratio of χ^2 to the degrees of freedom (df) is examined for the model (Hair et al., 2001). A χ^2/df value of 3 or lesser is a reasonably good fit (Hair et al., 2006).

According to above guidelines, model fit for this study was examined using multiple indices such as GFI, CFI, RMSEA, χ^2 and χ^2/df (Hu and Bentler, 1999). GFI and CFI cut-off values greater than .90 are considered to be good fit. Values approaching 1.0 are interpreted to generate good model fit (Kline, 2005). RMSEA cut-off value less than .06 or .08 is considered good fit. However, Table 3.2 presents the range of all these fit indices.

Table 3.2: Summary of Recommended Fit Indices for the Model

Fit Index	Recommended Value
Absolute Fit Measures	
χ^2/df	≤ 3
GFI	$\geq .90$
RMSEA	$\leq .06$ or $.08$
Incremental Fit Measures	
CFI	$\geq .95$ or $.90$

3.5 Confirmatory Factor Analysis

The present study has used a two-step SEM approach (Anderson and Gerbing, 1988). The first step is to test and confirm the measurement model using confirmatory factor analysis (CFA) for reliability and validity, following which the model that best fit the data was identified using SEM for hypotheses testing. This approach is highly preferred because SEM often becomes unreliable if measurement model has low reliability and validity (Hair et al., 2006). The validation process is achieved using construct validity that includes testing both convergent and discriminant validity (Liao, Chen, and Yen, 2007).

Unidimensionality is very important to develop scale (Garverand Mentzer, 1999). Exploratory factor analysis employs item-total correlation and factor analysis. These do not come under theory based analysis. Hence, they fail to assess unidimensionality directly. Confirmatory factor analysis (CFA) was employed to overcome this limitation. It helps to assess measurement model fit and unidimensionality. This section discusses CFA which includes identification issues and model specification.

Identification issue in SEM is about whether there are enough pieces of information to identify a solution for a set of structural equations (Hair et al., 2006). It is important to determine the identification status of a hypothesized model by checking the number of degrees of freedom associated with the model (Byrne, 2001) from the parameter summary in AMOS output. For specification of the latent constructs, loading for one of the indicators of each construct was fixed to 1.0 in the model to generate a scale for the latent construct. This process was done automatically with the features in AMOS software.

3.5.1 Confirmatory Factor Analysis for Organisational Culture

The measurement scale for organisational culture had first-order confirmatory factor analysis of three types of culture – innovative, bureaucratic and supportive. Each of them had eight items. The two-factor model is shown in figure 3.1.
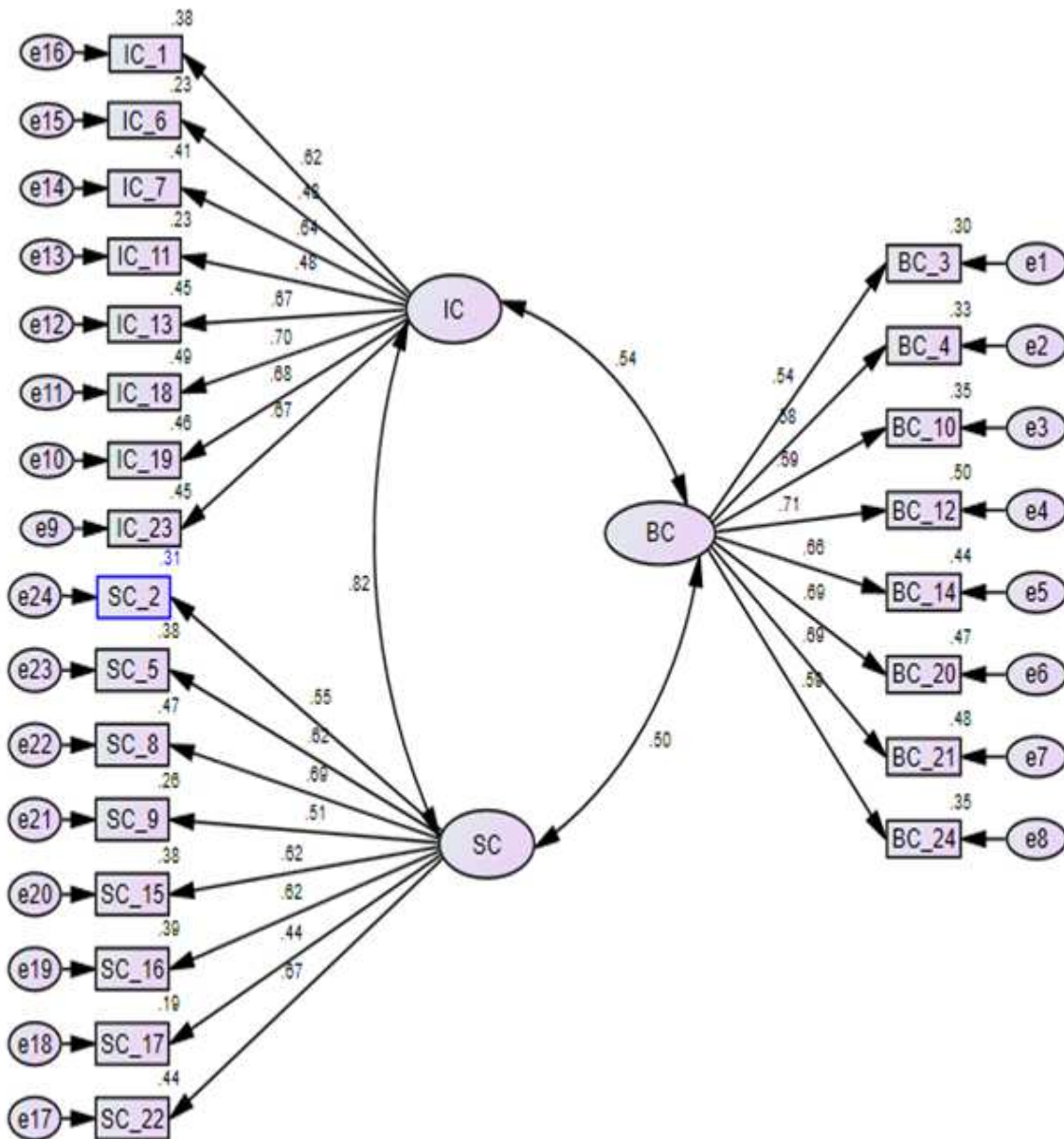
Figure 3.1: Initial and Final Standardized CFA for Organisational Culture

The initial factor model for Organisational Culture is shown in Figure 3.1. The initial measurement model (CFA1) (χ^2/df=2.84, GFI=.92, CFI=.92, RMSEA=.05) yielded an adequate model fit for the empirical data. Model chi-square was 690.23 with 243 degrees of freedom. The chi-square was significant at $p<.01$ level. The absolute Goodness-of-Fit measures for the measurement models are displayed in Table 3.3. First, the measurement model should demonstrate good model fit and meet the requirements of certain fit indices as discussed earlier. Clearly, it was adequate to

consider the data for further analysis. Hence, this was considered as final standardized CFA model for organisational culture.

Table 3.3: Goodness-of-fit Results for Organisational Culture

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA1	690.23	2.84	$p<.01$	.92	.92	.05	-	-

3.5.2 Confirmatory Factor Analysis for Participation in Decision Making
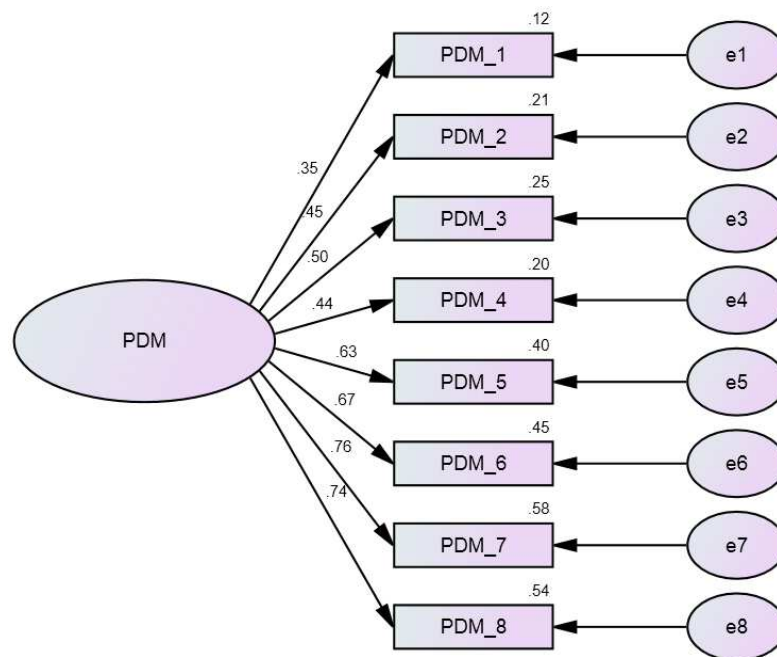
Figure 3.2: Initial Standardized CFA for Participation in Decision Making

The initial factor model for PDM is shown in Figure 3.2. The absolute Goodness-of-Fit measures for the measurement models are displayed in table 3.4. Standardized residuals represent the differences between observed covariance and estimated covariance with smaller fitted residuals indicating good fit (Lu, Lai and Cheng, 2007). Based on the recommendation of Hair et al. (2006), items associated with standardized residual greater than |4| should be dropped. Attention was also given to

those items with standardized residuals between |2.5| and |4| by checking modification indices and loading estimates to detect any other problems associated with the pair items. PDM_3 and PDM_2 shared high standardized residual of value 3.0. PDM_3 item stated that "Can you participate in decisions affecting issues related to your work?" Theoretically, this question is already covered in the previous item PDM_2 which stated "Do you have significant say in decision-making at work?" Hence, the two items were closely related. PDM_2 did not have high standardized residual with any other item. Moreover, its loading was good. Hence, only PDM_3 was removed from further analysis. The final standardized factor model for PDM is shown in Figure 3.3 (χ^2/df=2.53, GFI=.99, CFI=.99, RMSEA=.05).

Table 3.4: Goodness-of-fit Results for Participation in Decision Making

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA 1	156.75	7.84	$p<.01$	.94	.91	.09	PDM_3	HSR
CFA 2	27.83	2.53	$p<.01$	.99	.99	.05	-	-

Note: HSR – High Standardized Residual
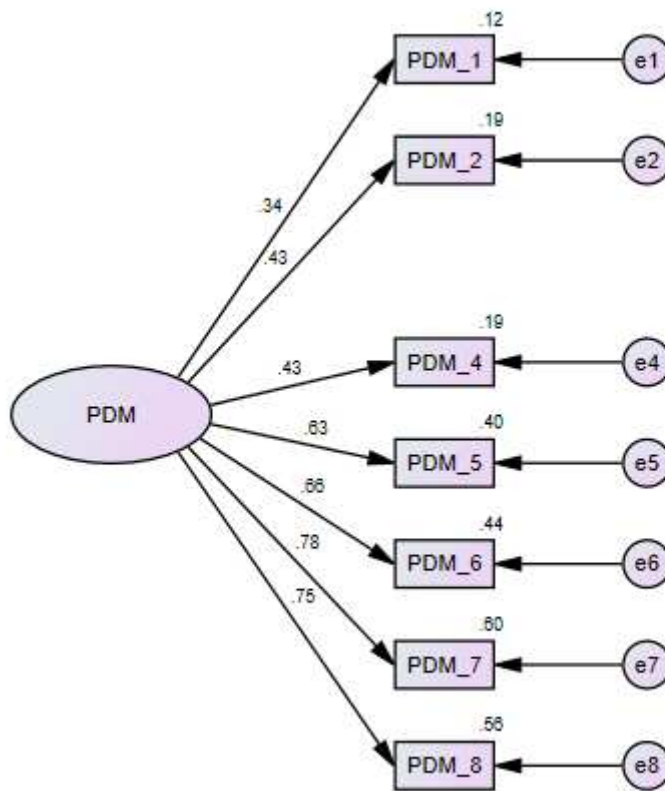
Figure 3.3: Final Standardized CFA for Participation in Decision Making

3.5.3 Confirmatory Factor Analysis for Trust

The two-factor model for trust is shown in figure 3.4. The absolute Goodness-of-Fit measures for the measurement models are displayed in table 3.5. First, the measurement model should demonstrate good model fit and meet requirements of certain fit indices as discussed earlier.
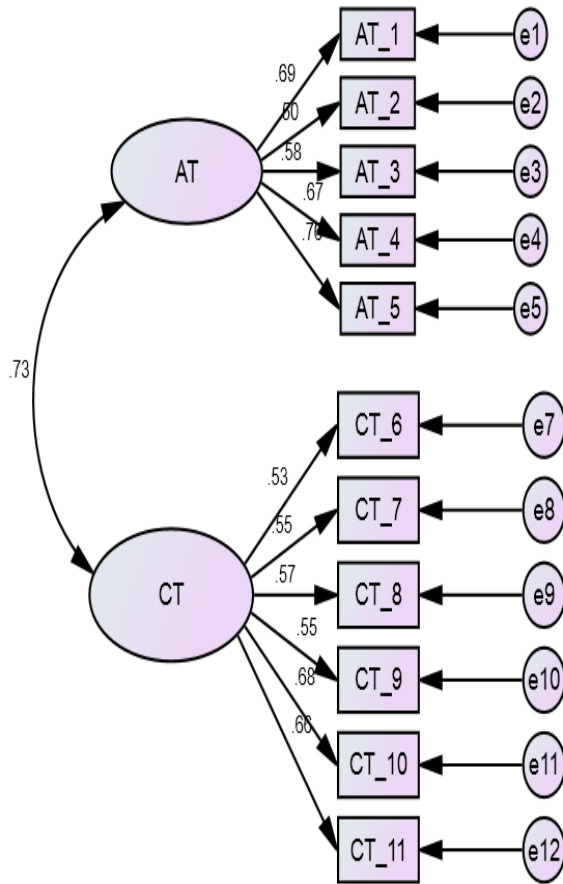
Figure 3.4: Initial Standardized CFA for Trust

The initial measurement model (CFA1) (χ^2/df=4.12, GFI=.96, CFI=.90, RMSEA=.07) yielded good model fit for the empirical data. The chi-square was significant at *p*<.01 level. This significant *p* value indicates that the observed covariance matrix matches the estimated covariance matrix in the empirical data (Hair et al., 2006). Chi-square is extremely sensitive to sample size, therefore, other model fit indices were examined closely (Byrne, 2001; Hair et al., 2006). CT_6 resulted in high standardized residual of value 2.86. So it was removed from the analysis. Theoretically CT_6 stands for "My colleagues approach their jobs with professionalism and dedication". This item has resemblance with other items of cognitive trust. Hence, its removal would not make affect the overall representation of cognitive trust by other items. The final standardized factor model for trust is shown in Figure 3.5 (χ^2/df=2.66, GFI=.98, CFI=.97, RMSEA=.05).

Table 3.5: Goodness-of-fit Results for Trust

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA 1	140.07	4.12	$p<.01$	.96	.90	.07	CT_6	HSR
CFA2	76	2.66	$p<.01$	.98	.97	.05	-	

Note: HSR – High Standardized Residual
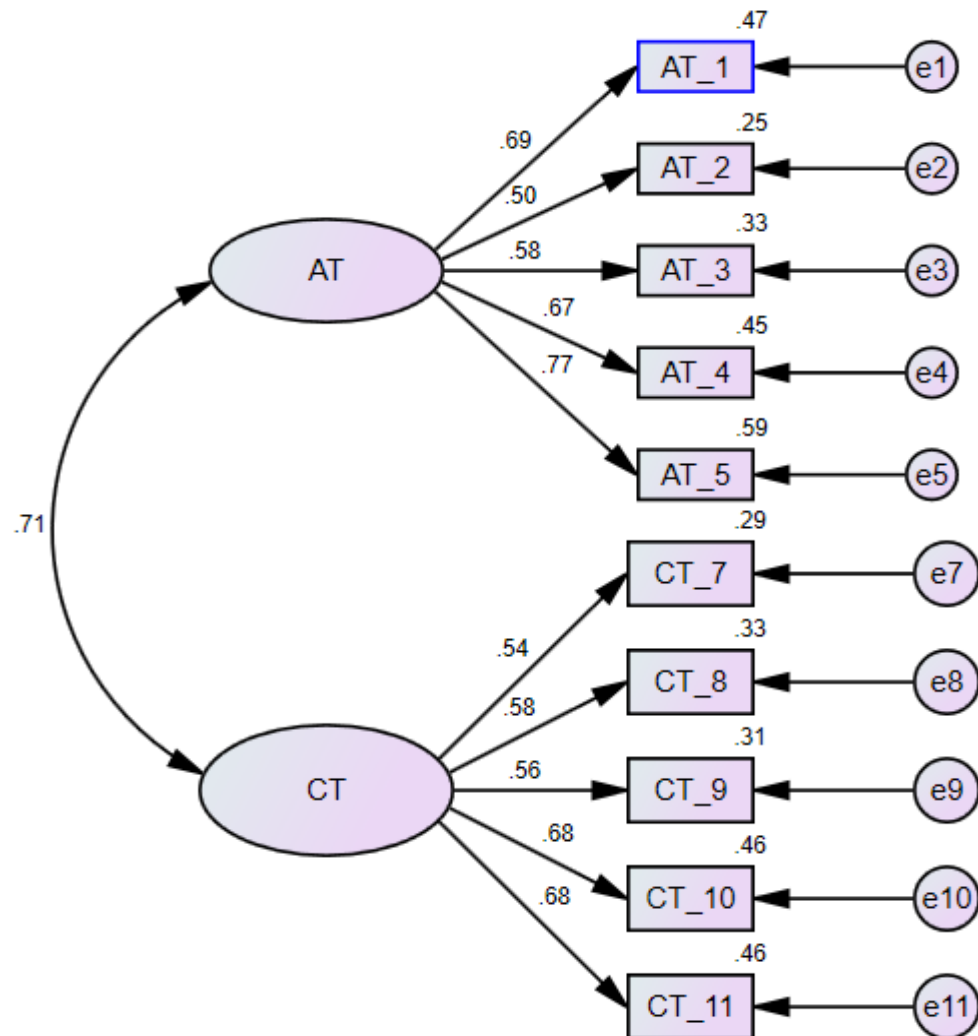
Figure 3.5: Final Standardized CFA for Trust

3.5.4 Confirmatory Factor Analysis for Organisational Learning
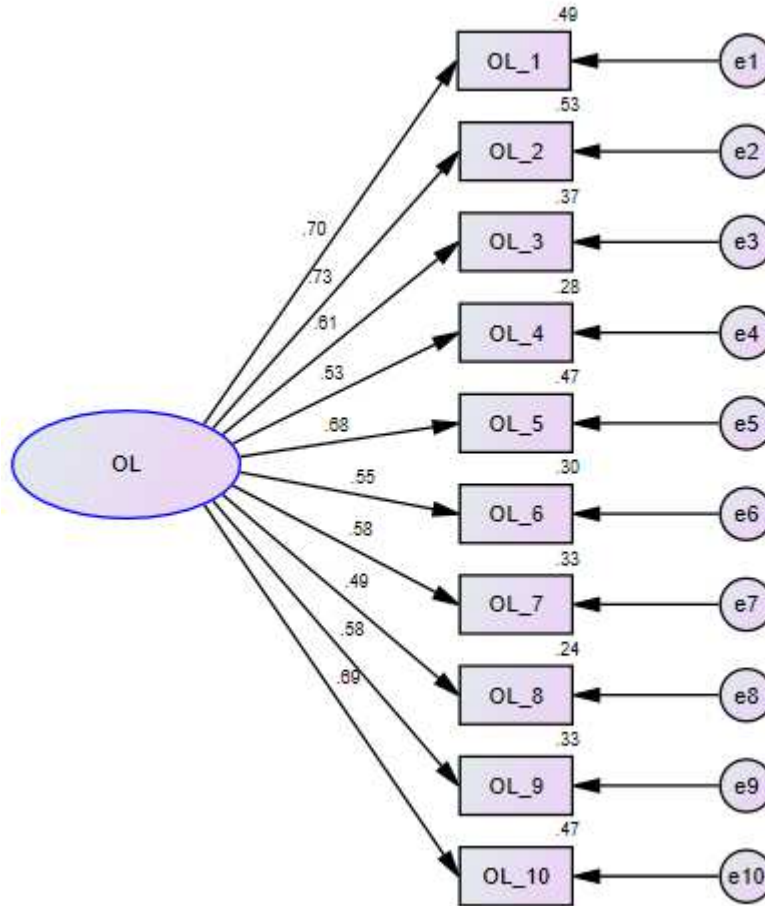
Figure 3.6: Initial and Final Standardized CFA for Organisational Learning

The measurement scale for organisational learning comprised 10 items. All 10 items were treated as one factor and entered into the CFA analysis process. The results of the initial estimation of the proposed model were acceptable for a well fitting model. The initial measurement model (CFA1) (χ^2/df=2.80, GFI=.97, CFI=.98, RMSEA=.05) yielded an adequate model fit for the empirical data. The chi-square was significant at $p<.001$ level. There was no problem associated with low factor loading or high standardized residual for any of the items. Hence, all items were considered for further analysis. The absolute Goodness-of-Fit measures for the measurement models are displayed in Table 3.6.

This examination of estimates of fit was supplemented by an examination of the significance of standardized regression weights. The variable OL was significantly associated with 10 items (Figure 3.5).

Table 3.6: Goodness-of-fit Results for Organisational Learning

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA1	83.90	2.80	$p<.001$	.97	.98	.05	-	-

3.5.5 Confirmatory Factor Analysis for Group Commitment
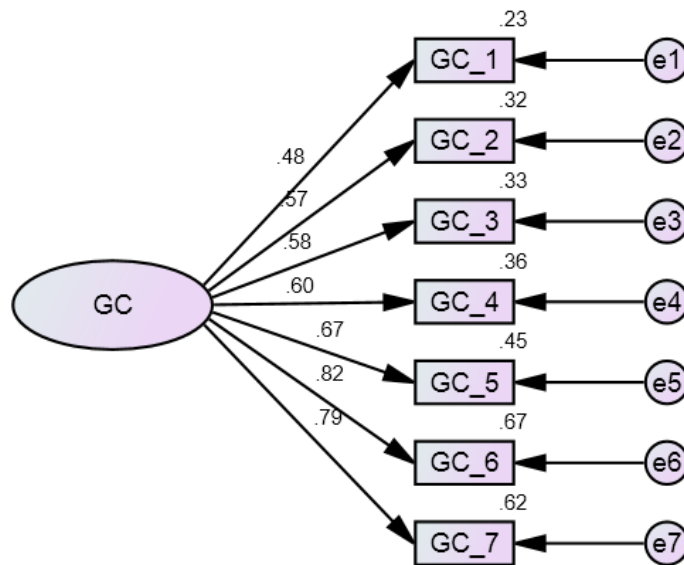
Figure 3.7: Initial and Final Standardized CFA for Group Commitment

Group commitment measurement scale comprised 7 items. All 7 items were treated as one factor and entered into the CFA analysis process. The results of the initial estimation of the proposed model were acceptable for a well fitting model. The initial measurement model (CFA1) (χ^2/df=2.64, GFI=.99, CFI=.99, RMSEA=.05) yielded an adequate model fit for the empirical data. Model chi-square was 29.09 with 11 degrees of freedom. The p value associated with the chi-square was significant at .001

level. All items loaded adequately on their factor. Thus, all items were considered for further analysis. The absolute Goodness-of-Fit measures for the measurement models are displayed in Table 3.7.

This examination of estimates of fit was supplemented by an examination of the significance of standardized regression weights. The variable GC was significantly associated with 7 items (Figure 3.7).

Table 3.7: Goodness-of-fit Results for Group Commitment

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA1	29	2.64	$p<.001$	.99	.99	.05	-	-

3.5.6 Confirmatory Factor Analysis for Job Involvement

Job involvement measurement scale comprised 10 items. All 10 items were treated as one factor and entered into the CFA analysis process. The initial measurement model in figure 3.8 (CFA1) (χ^2/df=5.44, GFI=.98, CFI=.98, RMSEA=.04) yielded good model fit for the empirical data. Table 3.8 shows the goodness-of-fit results for job involvement.

The value for χ^2/df was slightly greater than 3 and significant at $p<.01$ level. This significant p value did not indicate that the observed covariance matrix matches the estimated covariance matrix in the empirical data since χ^2/df was greater than 3 (Hair et al., 2006). This model needed some modifications to obtain a better fit. This was done by examining the standardized residuals, modification indices and the standardized factor loadings (Hair et al., 2006).
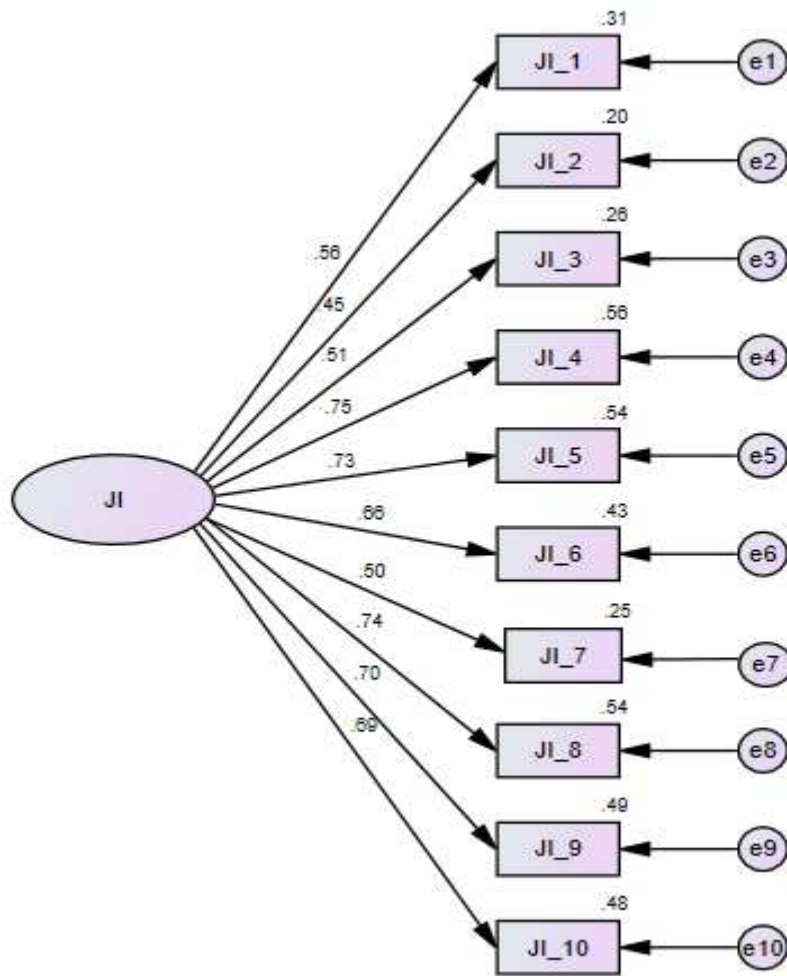
Figure 3.8: Initial Standardized CFA for Job Involvement

Table 3.8: Goodness-of-fit Results for Job Involvement

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA1	190.56	5.44	$p<.001$	.98	.98	.04	JI_7	HSR, LMI
CFA 2	62.35	2.50	$p<.001$	.98	.99	.02	-	-

Note: HSR – High Standardized Residual, LMI – Large Modification Index

Each of these measures was examined together with the model fit indices to ascertain if respecification is needed. Attention was given to those items with standardized residuals between |2.5| and |4| by checking modification indices and loading estimates to detect any other problems associated with the pair items. JI_7 resulted in unusually high standardized residual of 5.962 value and large modification index of value 67 with item JI_2. However, JI_2 did not have any issues with modification index and residuals. Theoretically, the item JI_7 "Usually, I feel detached from my job" did not give a lot of meaningful contribution. Moreover, it was covered by the rest of 9 items. So it was removed from further analysis. There is a marginal improvement in RMSEA by .02. However, CFI increases to .99. χ^2/df value comes down to 2.50. The final standardized factor model for job involvement is shown in Figure 3.9 (χ^2= 62.35, χ^2/df=2.50, GFI=.98, CFI=.99, RMSEA=.02). The value of χ^2 is considered significant due to the presence of large sample size.
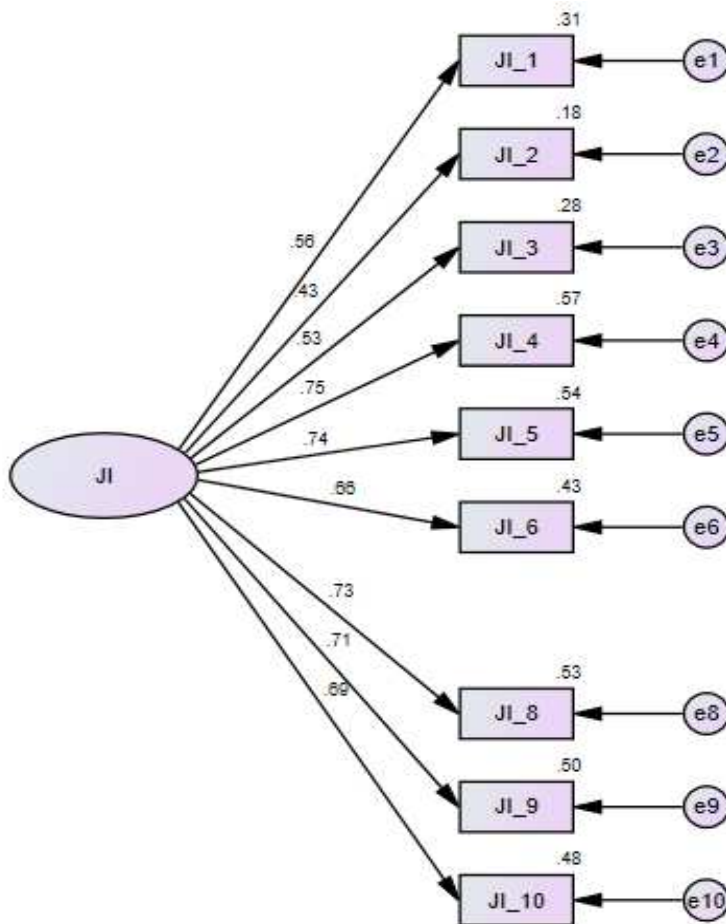
Figure 3.9: Final Standardized CFA for Job Involvement

3.5.7 Confirmatory Factor Analysis for Continuance Commitment

The measurement of continuance commitment scale consisted of 8 items. All 8 items were treated as one factor and entered into the CFA analysis process shown in figure 3.10. The results of the initial estimation of the proposed model were acceptable for a well fitting model. The initial measurement model (CFA1) (χ^2/df=15.87, GFI=.91, CFI=.80, RMSEA=.15) clearly did not yield a good model fit for the empirical data.The absolute Goodness-of-Fit measures for the measurement models are displayed in Table 3.9.

CC_1R and CC_4R resulted in high standardized residuals. So these two items were removed from further analysis.
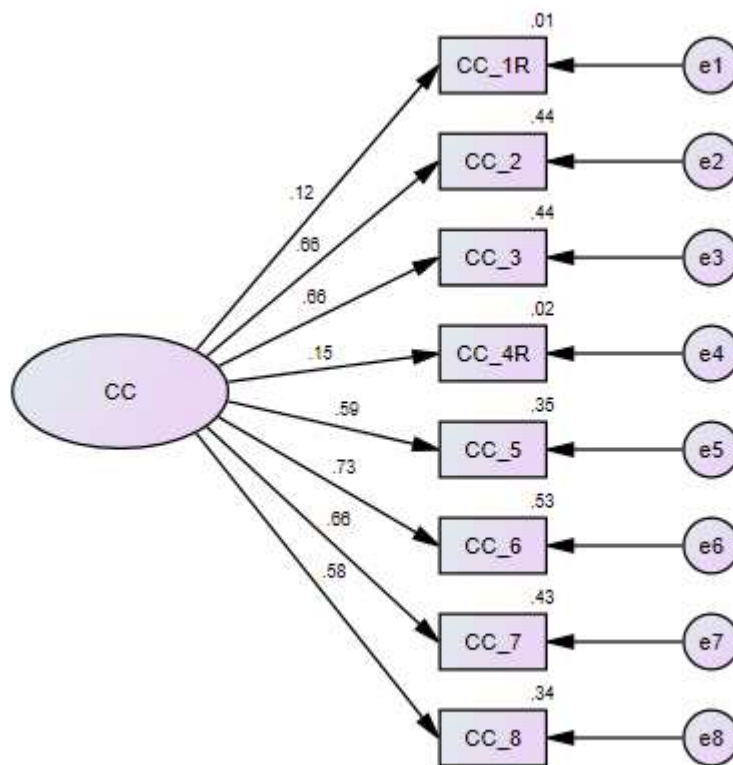
Figure 3.10: Initial Standardized CFA for Continuance Commitment

Model chi-square was 317.43 with 20 degrees of freedom. The chi-square was at significant at $p<.01$ level. Since χ^2/df value was not satisfactory, parameters such as standardized residuals and standardized loading estimates were examined to obtain better model fit.

The normed chi-square (χ^2/df) for CFA1 showed a value of 15.87, which does not fall within the acceptable ratio of less than 3.0. The GFI and CFI values were .91 and .80. GFI is above the recommended value of .90 but CFI did not exceed the recommended value of .90. RMSEA had a value of .15 which cannot be acceptable as reasonable fit. In summary, the various indices of overall Goodness-of-Fit for the model indicated poor fit.

Table 3.9: Goodness-of-fit Results for Continuance Commitment

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA1	317.43	15.87	$p<.001$	.91	.80	.15	CC_1R	LFL, LMI
CFA 2	140.71	10.05	$p<.01$	.95	.90	.11	CC_4R	LFL, LMI
CFA 3	8.96	1.80	$p<.05$	1.00	1.00	.03	-	-

Note: LFL – Low Factor Loading, LMI – Large Modification Index

Firstly, standardized loading estimates for the items CC_1R and CC_4R were .12 and .15 (Figure 3.10) which were lower than the minimum desired value of .50. Secondly, both the items were associated with unaccepted values of modification index (MI) and high standardized residual among themselves. (MI = 143.11; standardized residual = 11.86). Theoretically, the item CC_1R stands for "I am not afraid of what might happen if I quit my job without having another one lined up". Item CC_4R stands for "It would not be too costly for me to leave my organisation now." These are reversely coded items. Their importance in predicting continuance commitment may not be to a great extent as their factor loadings are very low. Hence, the items CC_1R and CC_4R were not considered for further analysis.

After the modifications were made, the fit indices for the final CFA3 model improved (χ^2=8.96, χ^2/df=1.80, GFI=1.00, CFI=1.00, RMSEA=.03). There is a significant improvement in χ^2 value after removal of the two items. Also, χ^2/df value

improved significantly. The three fit indices, GFI and CFI were greater than .90. RMSEA value was reported to be .03. Hence, CFA3 was considered to have adequate fitting qualities.
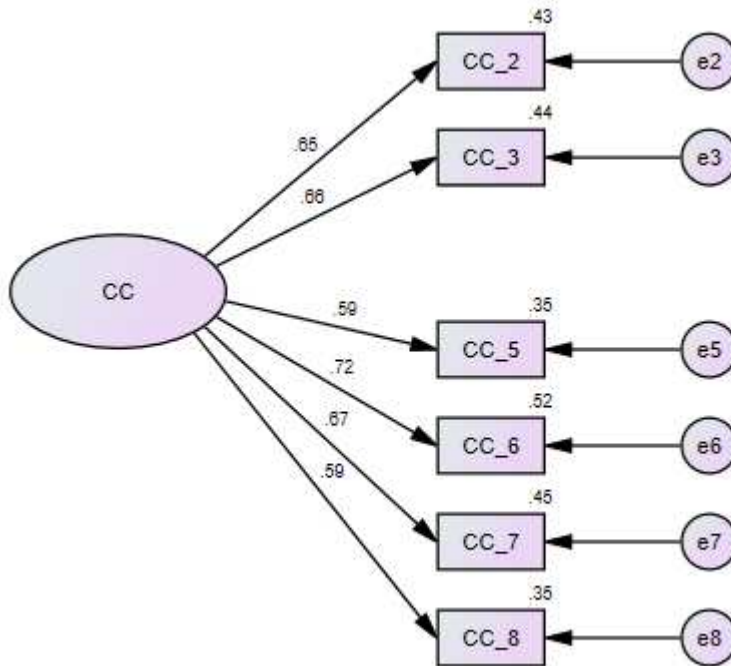
Figure 3.11: Final Standardized CFA for Continuance Commitment

3.5.8 Confirmatory Factor Analysis for Normative Commitment

The measurement of normative commitment scale consisted of 8 items. All 8 items were treated as one factor and entered into the CFA analysis process shown in figure 3.12. The results of the initial estimation of the proposed model were acceptable for a well fitting model. The initial measurement model (CFA1) (χ^2=286.49, χ^2/df=14.45, GFI=.90, CFI=.72, RMSEA=.14) clearly did not yield a good model fit for the empirical data. The absolute Goodness-of-Fit measures for the measurement models are displayed in Table 3.10.
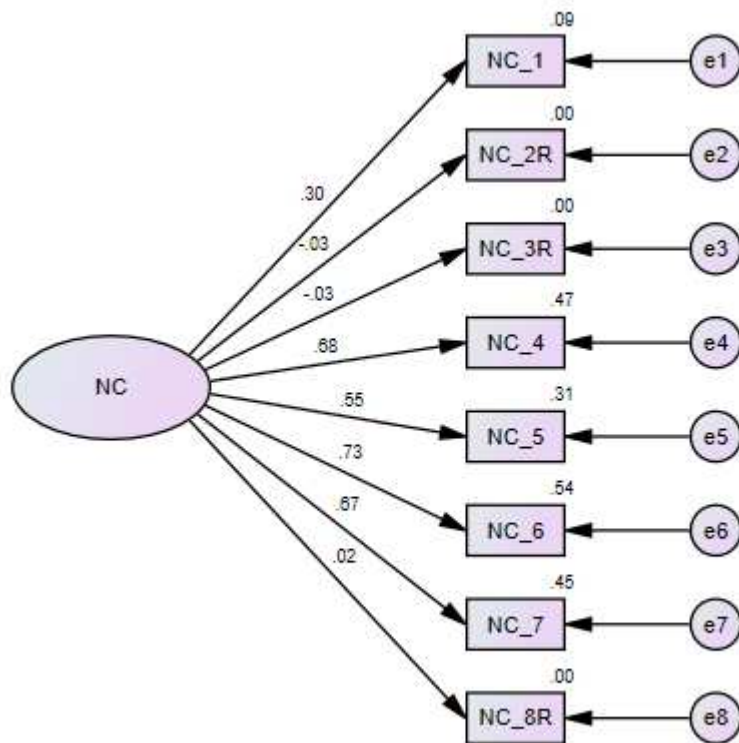
Figure 3.12: Initial Standardized CFA for Normative Commitment

The data in table 3.10 indicated that χ^2/df value is 14.45 which is greater than 3 though it is significant at $p<.01$ level. In addition, CFI value was not greater than .90. RMSEA was greater than .06. All these values indicated that the model was not a good fit and it needed some modifications so that a better fit could be obtained. Attention was given to those items with standardized residuals between |2.5| and |4| by checking modification indices and loading estimates to detect any other problems associated with the pair items.

Table 3.10: Goodness-of-fit Results for Normative Commitment

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA	Items Deleted	Reason
CFA1	286.49	14.45	$p<.001$	.90	.72	.14	NC_2R	HSR, LMI
CFA 2	166.09	11.86	$p<.001$	.94	.82	.10	NC_3R	HSR, LMI
CFA 3	37.22	4.13	$p<.001$	.98	.96	.07	NC_8R	HSR, LMI
CFA 4	10.19	2.54	$p<.05$	1.00	1.00	.05	-	-

Note: HSR – High Standardized Residual , LMI – Large Modification Index

Theoretically, the items NC_2R, NC_3R and NC_8R stand for "I do not believe that a person must always be loyal to his or her organisation", "Jumping from organisation to organisation does not seem unethical to me" and "I do not think that wanting to be a company man or company woman is sensible anymore". These statements seem to be closely related to each other.

The standardized loading estimates of NC_2R, NC_3R and NC_8Rwere not significant and they were also less than .50 (as shown in Figure 3.12). NC_2R and NC_3R resulted in high standardized residual with 8.55 value. This had exceeded recommended cut-off of 4.0. The modification index associated with between them was unusually high with 74 value. NC_2R and NC_8R resulted in high standardized residual with 8.34 value. This had also exceeded recommended cut-off of 4.0. The modification index associated between them was unusually high with 69.62 value. NC_3R and NC_8R resulted in high standardized residual with 10.12 value between them. The modification index associated with between them was unusually high with 102.45 value. So these three items were removed from further analysis. RMSEA value is now .05. However, CFI increases to 1.00. χ^2/df value comes down to 2.54. The final standardized factor model for job involvement is shown in Figure 3.13 (χ^2= 10.19, χ^2/df=2.54, GFI=1.00, CFI=1.00, RMSEA=.05).
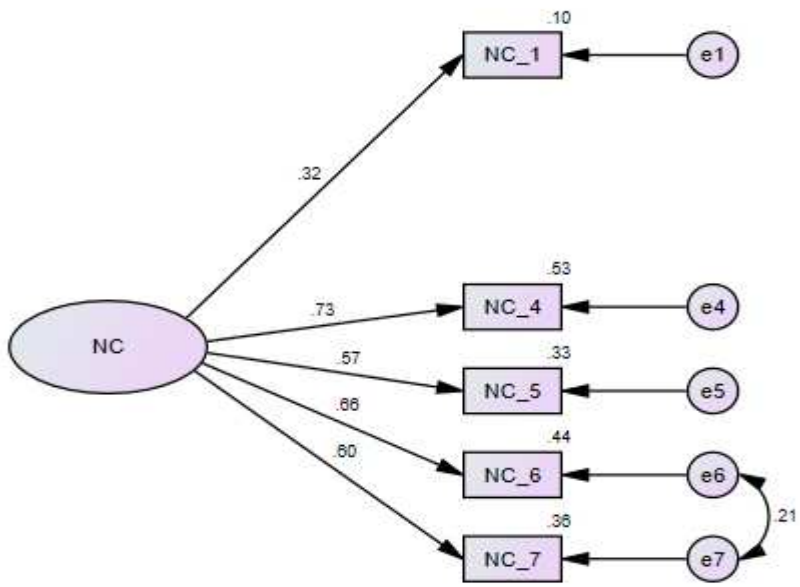
Figure 3.13: Final Standardized CFA for Normative Commitment
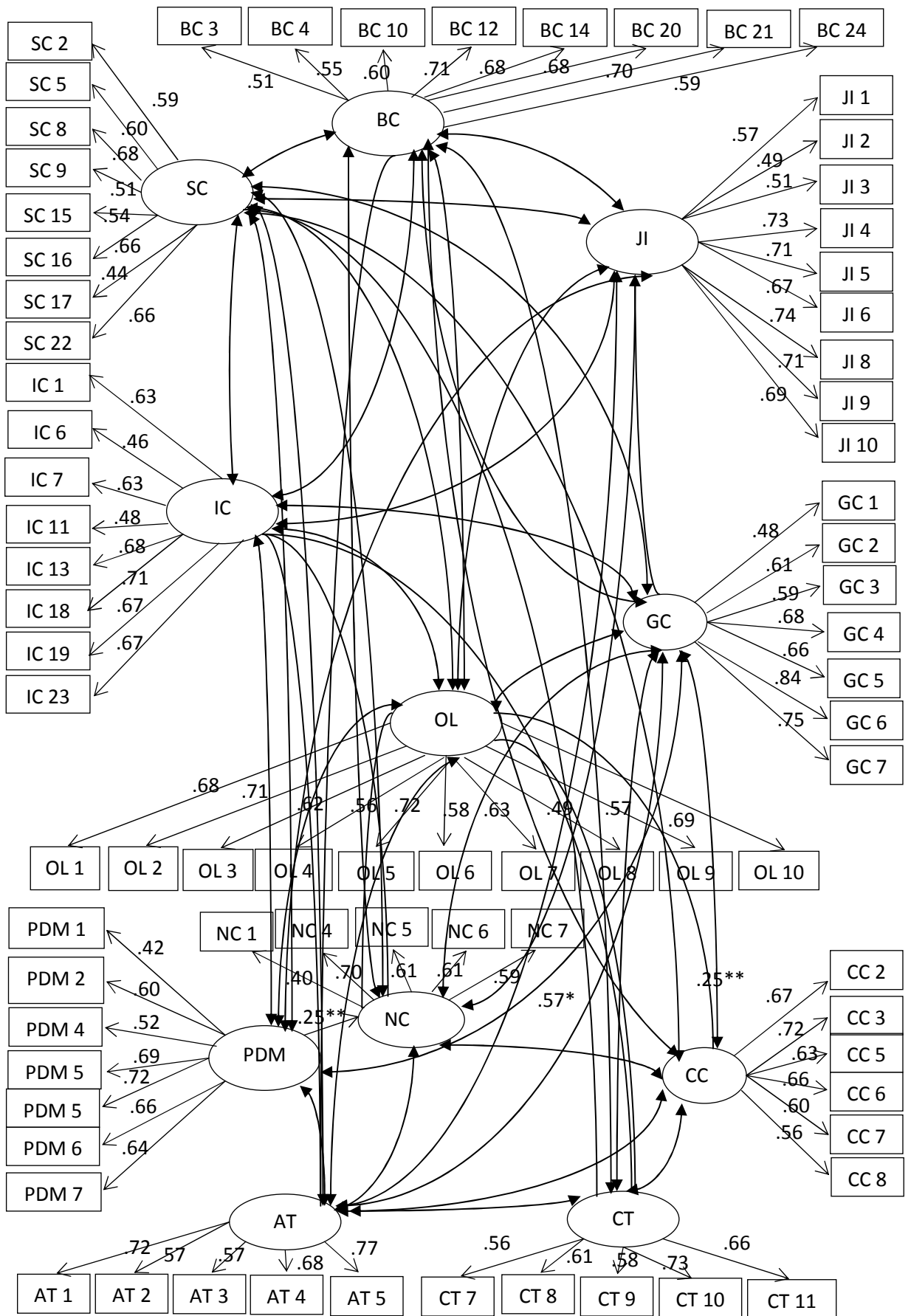
Figure 3.14: Full Measurement Model

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3.6 Construct Validity

Construct validity is tested by convergent validity and discriminant validity (Hair et al., 2006). Prior to structural model testing, the construct validity and reliability were tested by checking convergent validity, discriminant validity and composite reliability of the data. The whole process of scale validation is explained in the following sub-sections.

3.6.1 Convergent Validity

The measurement model specified how the observed indicators relate to unobserved constructs (Kline, 2005). Figure 3.14 shows the full measurement model. Having fulfilled the Goodness-of-Fit indices assessment, the next step is to test convergent validity of the data. Convergent validity is examined using factor loadings, average variance extracted (AVE) and composite reliability. Construct validity is established by composite reliability (CR) values of the construct. Composite reliability is considered to be a superior alternative to Cronbach's Alpha (Chin, 1998). CR measures the sum of a latent variable's factor loadings relative to the sum of the factor loadings plus error variance. This value ranges from 0 to 1. This value should be greater than .50 for the validity of a construct. CR values are above the threshold of .70 (Nunnally and Bernstein, 1994).

Table 3.11: Factor loading, Composite Reliability and Validity Results of Measurement Model

Variable	Items	Outer Loadings	CR	AVE
Innovative Culture (IC)	IC_1	.63		
	IC_6	.46		
	IC_7	.63		
	IC_11	.48	.87	.88
	IC_13	.68		
	IC_18	.71		
	IC_19	.67		
	IC_23	.67		
Supportive Culture (SC)	SC_2	.59		
	SC_5	.60		
	SC_8	.68		
	SC_9	.51	.81	.85

	SC_15	.54		
	SC_16	.66		
	SC_17	.44		
	SC_22	.66		
Bureaucratic Culture (BC)	BC_3	.51		
	BC_4	.55		
	BC_10	.60		
	BC_12	.71	.84	.81
	BC_14	.68		
	BC_20	.68		
	BC_21	.70		
	BC_24	.59		
Affective Trust (AT)	AT_1	.72		
	AT_2	.57		
	AT_3	.57	.84	.90
	AT_4	.68		
	AT_5	.77		
Cognitive Trust (CT)	CT_7	.56		
	CT_8	.61		
	CT_9	.58	.80	.82
	CT_10	.73		
	CT_11	.66		
Participation in Decision Making (PDM)	PDM_1	.42		
	PDM_2	.60		
	PDM_4	.52		
	PDM_5	.69	.82	.88
	PDM_6	.72		
	PDM_7	.66		
	PDM_8	.64		
Organisational Learning (OL)	OL_1	.68		
	OL_2	.71		
	OL_3	.62		
	OL_4	.56		
	OL_5	.72	.90	.88
	OL_6	.58		
	OL_7	.63		
	OL_8	.49		
	OL_9	.57		
	OL_10	.69		
Group Commitment (GC)	GC_1	.48		
	GC_2	.61		
	GC_3	.59		
	GC_4	.68	.90	.81
	GC_5	.66		
	GC_6	.84		
	GC_7	.75		
	JI_1	.57		

			CR	AVE
	JI_2	.49		
	JI_3	.51		
Job Involvement	JI_4	.73		
(JI)	JI_5	.71	.89	.90
	JI_6	.67		
	JI_8	.74		
	JI_9	.71		
	JI_10	.69		
	CC_2	.67		
Continuance	CC_3	.72		
Commitment	CC_5	.63	.79	.83
(CC)	CC_6	.66		
	CC_7	.60		
	CC_8	.56		
	NC_1	.40		
Normative	NC_4	.70		
Commitment	NC_5	.61	.72	.82
(NC)	NC_6	.61		
	NC_7	.59		

Note: Eight items PDM_3, CT_6, JI_7, CC_1R, CC_4R, NC_2R, NC_3R and NC_8R were removed due to low factor loadings, large modification indices and high residuals. CR – Composite Reliability, AVE – Average Variance Extracted.

Next, the squared multiple correlations (also called item reliability) in the CFA model were examined. Item reliability refers to the value that represents the extent to which an observed indicator's variance is explained by the underlying construct (Hair et al., 2006). From table 3.11, the composite reliabilities of all variables range from .72 to .90. Moreover, both composite reliability indicators and Cronbach's alpha values of all the variables are above the threshold value of .70 (Table 3.11). AVE of all variables is above .50. All the indicators that were included for SEM in table 3.11 have factor loadings that are close to or above .50. Indicator reliability is established when the indicator (factor) loading is greater than .50 (Hair, Anderson, Tatham and Black, 1998). Hence, measurements have strong convergent validity.

In the CFA model, the standardized factor loadings or the path estimates between the factor or variable to the indicators were examined first. These standardized factor loadings have to be close to .50 or greater (Hair et al., 2006). Hence, any indicator with low loading less than .30 represents insignificance due to low factor loading. This indicates potential measurement problem. The full

measurement model in Figure 3.14 indicated that all factor loadings of the items or indicators were statistically significant. Moreover, all the factor loadings were greater than or nearer to the recommended level of .50 in table 3.11.

3.6.2 Reliability

The scales for all the constructs were statistically reliable. Assessment of convergent validity assessment includes construct reliability apart from the criteria of satisfying factor loadings of indicators and item reliability. Construct reliability should be greater than .70 (Kline, 2015). Table 3.12 summarizes the results of reliability.

Table 3.12: Reliability Results among Variables

Variable	No. of items	Item loadings	Cronbach's α
Innovative Culture (IC)	8	.46–.71	.83
Supportive Culture (SC)	8	.44–.68	.81
Bureaucratic Culture (BC)	8	.51–.70	.84
Affective Trust (AT)	5	.57–.77	.77
Cognitive Trust (CT)	5	.56–.73	.74
Participation in Decision Making (PDM)	7	.42–.72	.79
Organisational Learning (OL)	10	.49–.72	.86

Group Commitment (GC)	7	.48–.84	.83
Job Involvement (JI)	10	.49–.74	.87
Continuance Commitment (CC)	6	.56–.72	.81
Normative Commitment (NC)	5	.40–.70	.73

Results displayed adequate reliability for all constructs. The reliability of .70 and above is accepted for social science research (Kline, 2015). Overall, the present findings indicate that all constructs have achieved a range of fairly good reliabilities among indicators to measure the latent constructs. Therefore, convergent validity of the measurement model is supported by these results.

3.6.3 Discriminant Validity

Correlation analysis was employed to examine the relationship among all the variables. For assessing discriminant validity, square root of AVE of a construct should be greater than its bivariate correlation with any other construct (Hulland, 1999; Fornell and Larcker, 1981). Table 3.13 presents the correlations among the latent variables with square roots of average variance extracted (AVEs) shown on diagonals. As evident from the table, this criteria is met. Thus discriminant validity of the constructs is established.

Table 3.13: Correlation and Square Root of AVE among Variables

Variable	IC	SC	BC	AT	CT	PDM	OL	GC	JI	CC	NC
IC	**.94**										
SC	.62	**.92**									
BC	.53	.46	**.90**								
AT	.44	.41	.32	**.95**							
CT	.40	.32	.21	.55	**.91**						
PDM	.49	.42	.25	.54	.54	**.94**					
OL	.57	.53	.38	.52	.52	.50	**.94**				
GC	.42	.42	.33	.45	.45	.43	.58	**.90**			
JI	.49	.43	.36	.55	.55	.55	.58	.62	**.95**		
CC	.33	.22	.11	.47	.48	.48	.40	.42	.56	**.91**	
NC	.41	.31	.17	.49	.46	.46	.45	.44	.60	.58	**.82**

Note: The bold elements represent square root of AVE (average variance extracted).
All correlations are significant at .01 level.

3.7 Structural Model

Having satisfied the measurement model fit issues, necessary reliability and validity tests, it is now necessary to focus on the hypothesized relationships between the variables. First, the hypothesized structural model had to satisfy the criteria of Goodness-of-Fit indices (Hu and Bentler, 1999). Secondly, convergent and discriminant validity has to be ensured. Finally, the direction and significance of each of the hypothesized paths was examined followed by examining the magnitude of these hypothesized paths.
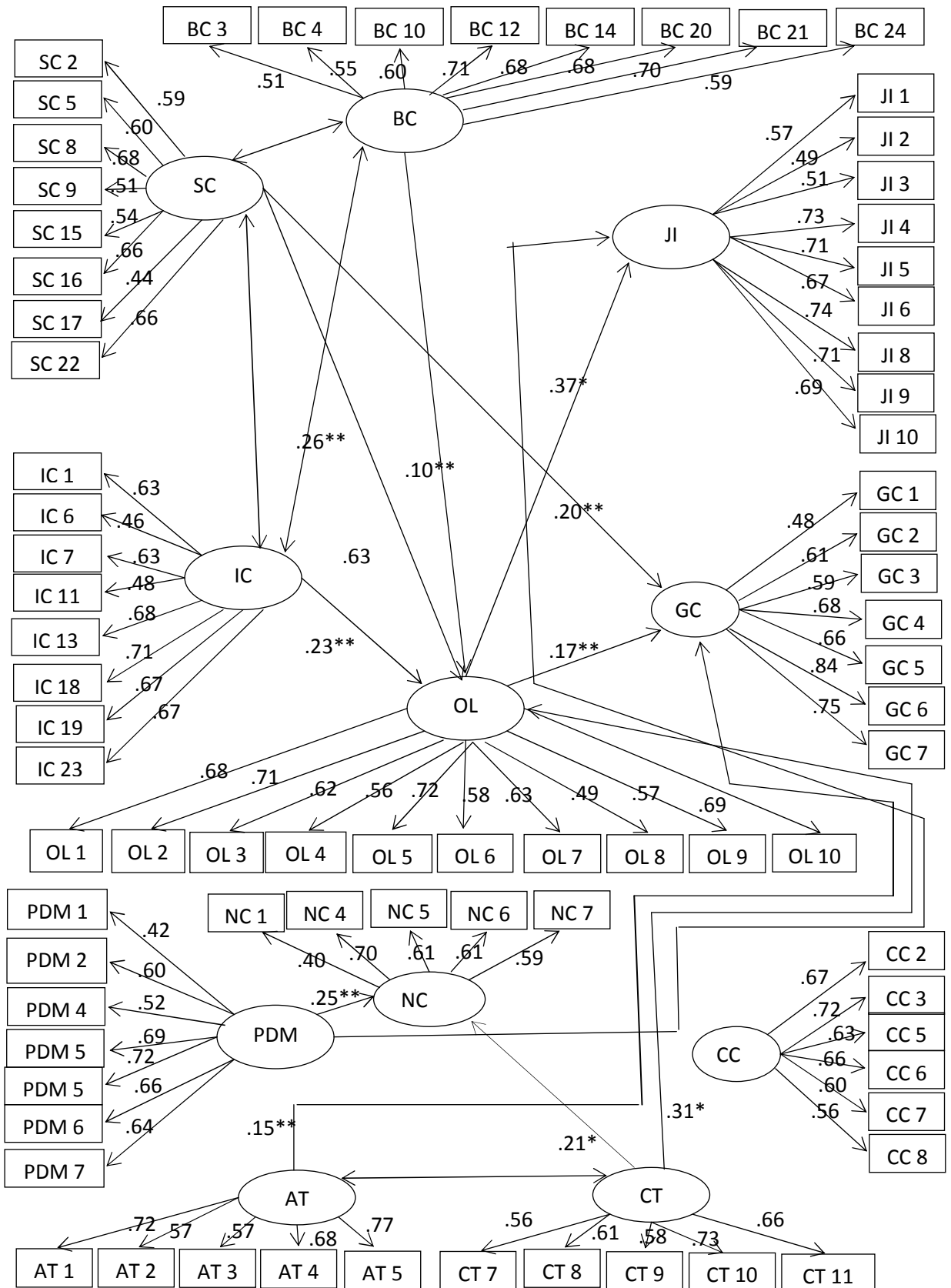
Figure 3.15: Structural Equation Model with Standardized Path Coefficients.

Note: SC – supportive culture, IC – innovative culture, BC – bureaucratic culture, PDM – participation in decision making, AT – affective trust, CT – cognitive trust, OL – organisational learning, GC – group commitment, JI – job involvement, CC – continuance commitment, NC – normative commitment. * β is significant at .001 level. ** β is significant at .05 level.
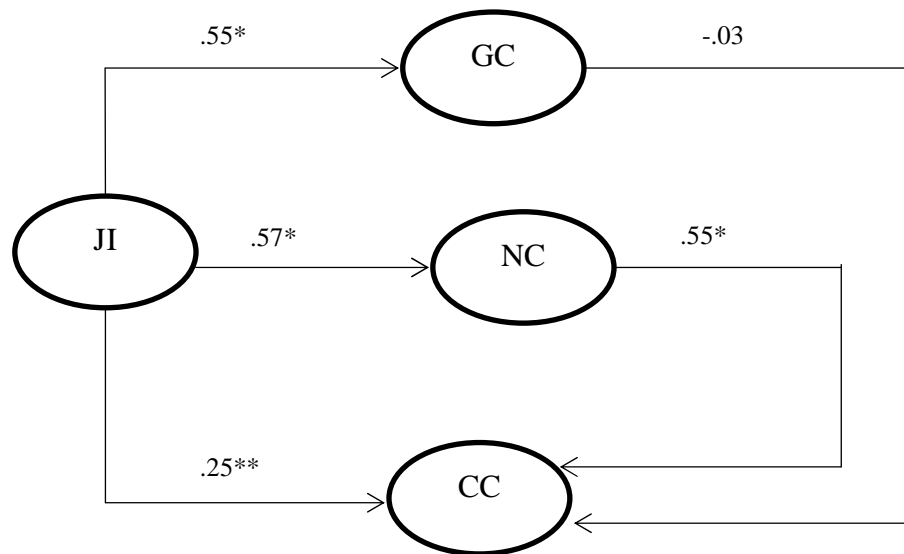
Figure 3.16: Structural Equation Model Showing Interrelationship among Multiple Commitments

Note: * β is significant at .001 level. ** β is significant at .05 level. GC – Group Commitment, JI – Job Involvement, CC – Continuance Commitment, NC – Normative Commitment.

3.8 Evaluation of the Hypothesized Model

The SEM technique was used to examine all hypotheses proposed in this study. To avoid statistical identification problems, the theoretical model was prepared in a recursive manner (Hair, Black, Babin, Anderson and Tatham, 2006).

The structural model relationships using SEM are shown in Figure 3.15 and Figure 3.16. It has been observed that supportive culture predicted group commitment and organisational learning. However, supportive culture did not significantly predict job involvement (p=.66), normative commitment (p=.20) and continuance commitment (p=.25). The standardized path coefficient for the hypothesized path from supportive culture to group commitment was .20 and critical ratio was 2.08. The standardized path coefficient for the hypothesized path from supportive culture to organisational learning was .26 and critical ratio was 4.08.

Bureaucratic culture has predicted group commitment and organisational learning. However, bureaucratic culture did not significantly predict job involvement (p=.19), normative commitment (β=-.14) and continuance commitment (p=.61). The standardized path coefficient for the hypothesized path from bureaucratic culture to organisational learning was .15 and critical ratio was 2.04. The standardized path coefficient for the hypothesized path from bureaucratic culture to group commitment was .20 and critical ratio was 1.92. Bureaucratic culture has predicted group commitment and organisational learning.

Innovative culture has predicted normative commitment and organisational learning. However, innovative culture did not significantly predict job involvement (p=.35), group commitment (β=-.26) and continuance commitment (β=-.01). The standardized path coefficient for the hypothesized path from innovative culture to normative commitment was .19 and critical ratio was 2.72. The standardized path coefficient for the hypothesized path from innovative culture to organisational learning was .23 and critical ratio was 2.68.

Affective trust was a significant predictor of group commitment. However, affective trust did not predict continuance commitment (p=.37), normative commitment (β=-.15) and job involvement (p=.88) and organisational learning (β=-.19) significantly. The standardized path coefficient for the hypothesized path from affective trust to group commitment was .15 and critical ratio was 2.70. Cognitive trust was a significant predictor of normative commitment, job involvement and organisational learning. However, cognitive trust did not predict continuance commitment (p=.09) and group commitment (p=.76) significantly. The standardized

path coefficient for the hypothesized path from cognitive trust to normative commitment was .21 and critical ratio was 3.17. The standardized path coefficient for the hypothesized path from cognitive trust to job involvement was .21 and critical ratio was 3.46. The standardized path coefficient for the hypothesized path from cognitive trust to organisational learning was .33 and critical ratio was 5.66.

Participation in decision making predicted normative commitment, job involvement and organisational learning significantly. However, participation in decision making did not significantly predict continuance commitment (p=.21) and group commitment (p=.80). The standardized path coefficient for the hypothesized path from participation in decision making to normative commitment was .25 and critical ratio was 3.38. The standardized path coefficient for the hypothesized path from participation in decision making to job involvement was .17 and critical ratio was 2.75. The standardized path coefficient for the hypothesized path from participation in decision making to organisational learning was .28 and critical ratio was 4.18.

Organisational learning was a significant predictor of group commitment and job involvement. However, organisational learning did not predict continuance commitment (β=-.13) and normative commitment (p=.76) significantly. The standardized path coefficient for the hypothesized path from organisational learning to group commitment was .17 and critical ratio was 2.90. The standardized path coefficient for the hypothesized path from organisational learning to job involvement was .37 and critical ratio was 5.49.

Job involvement was a significant predictor of group commitment, normative commitment and continuance commitment. Normative commitment predicted continuance commitment significantly. The standardized path coefficient for the hypothesized path from job involvement to group commitment was .55 and critical ratio was 8.35. The standardized path coefficient for the hypothesized path from job involvement to normative commitment was .57 and critical ratio was 7.12. The standardized path coefficient for the hypothesized path from job involvement to continuance commitment was .25 and critical ratio was 2.26.

The examination of estimates of fit was supplemented by an examination of the significance of completely standardized path coefficients (Table 3.14), which resulted in a range from .15 to .57.

Table 3.14: Summary of Hypothesized Relationships

Hypothesized paths	β	C.R./t-value	Decision
$H_{5(a)}$: GC ← SC	.20**	2.08	Accepted
$H_{5(b)}$: GC ← BC	.20**	1.92	Accepted
$H_{5(c)}$: GC ← IC	-.26**	-2.75	Refuted
$H_{5(d)}$: JI ← SC	-.05	1.15	Refuted
$H_{5(e)}$: JI ← BC	.06	1.61	Refuted
$H_{5(f)}$: JI ← IC	.10	.95	Refuted
$H_{5(g)}$: NC ← SC	-.15	-1.29	Refuted
$H_{5(h)}$: NC ← BC	-.14**	-2.72	Refuted
$H_{5(i)}$: NC ← IC	.19*	2.72	Accepted
$H_{5(j)}$: CC ← SC	-.14	-1.48	Refuted
$H_{5(k)}$: CC ← BC	.03	.35	Refuted
$H_{5(l)}$: CC ← IC	-.01	.07	Refuted
$H_{5(m)}$: OL ← SC	.26**	4.08	Accepted
$H_{5(n)}$: OL ← BC	.15**	2.04	Accepted
$H_{5(o)}$: OL ← IC	.23**	2.68	Accepted
$H_{6(a)}$: GC ← AT	.15**	2.70	Accepted
$H_{6(b)}$: GC ← CT	.02	.29	Refuted
$H_{6(c)}$: JI ← AT	.02	.07	Refuted
$H_{6(d)}$: JI ← CT	.21*	3.46	Accepted
$H_{6(e)}$: NC ← AT	-.15	-2.44	Refuted
$H_{6(f)}$: NC ← CT	.21*	3.17	Accepted
$H_{6(g)}$: CC ← AT	.07	2.14	Refuted
$H_{6(h)}$: CC ← CT	.12	1.43	Refuted
$H_{6(i)}$: OL ← AT	-.19**	-3.00	Refuted
$H_{6(j)}$: OL ← CT	.33*	5.66	Accepted

$H_{7(a)}$: GC ← PDM	-.009	-1.13	Refuted
$H_{7(b)}$: JI ← PDM	.17**	2.75	Accepted
$H_{7(c)}$: NC ← PDM	.25**	3.38	Accepted
$H_{7(d)}$: CC ← PDM	.12	1.34	Refuted
$H_{7(e)}$: OL ← PDM	.28*	4.18	Accepted
$H_{8(a)}$: GC ← OL	.17**	2.90	Accepted
$H_{8(b)}$: JI ← OL	.37*	5.49	Accepted
$H_{8(c)}$: NC ← OL	-.02	-.73	Refuted
$H_{8(d)}$: CC ← OL	-.13	-1.37	Refuted
$H_{9(a)}$: GC ← JI	.55*	8.35	Accepted
$H_{9(b)}$: NC ← JI	.57*	7.12	Accepted
$H_{9(c)}$: CC ← JI	.25**	2.26	Accepted
$H_{9(d)}$: CC ← GC	-.03	-.58	Refuted
$H_{9(e)}$: CC ← NC	.55*	5.02	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio. * β is significant at .001 level. ** β is significant at .05 level. SC – supportive culture, IC – innovative culture, BC – bureaucratic culture, PDM – participation in decision making, AT – affective trust, CT – cognitive trust, OL – organisational learning, GC – group commitment, JI – job involvement, CC – continuance commitment, NC – normative commitment.

The results of the model with completely standardized path coefficients are demonstrated in Figures 3.15 and 3.16. This model showed perfect fit with the data (χ^2=4998.54, χ^2/df=1.76, GFI=.90, CFI=.90, RMSEA=.03) which is considered to be an overall acceptable fit. A χ^2/df value of less than or equal to 3 is considered a reasonable good indicator of the model fit (Hair et al., 2006; Bentler, 1990). The values for GFI, TLI and CFI equal to or greater than .90 are considered good model fit indices (Bentler, 1990). A good fit is also indicated by RMSEA value which is less than .05 (Hair et al., 2006).

3.9 Hypotheses Testing

The hypothesized model was analyzed by examining each of the hypotheses. Each hypothesized path in the research model was assessed for its significance. Then, the nature and magnitude of each of these paths were examined. The results obtained from AMOS provide unstandardized and standardized path coefficients or β values, standard errors and statistics for all specified paths. Figure 3.15 depicts all hypothesized structural relationships among the variables.

The estimated path coefficients were examined for their significance, magnitude and direction. The paths which were non-significant and/or with a direction opposite to that of expected were not supposed to be supported since they did not give substantive results (Malhotra, 2004). The absolute magnitude of a standardized path coefficient indicates the size of effect of an independent variable on its dependent variable (Hair et al., 2006). According to Kline (2005), absolute values of standardized path coefficients of less than .10 to .30 may indicate small effect, values between .10 to .30 may indicate medium effect and values greater than .50 may indicate large effect. Critical ratios or t-values of path coefficients helped to assess relationships between the latent variables. According to Hair et al. (2010), commonly used critical values are 1.65 (significance level = 10%), 1.96 (significance level = 5%) and 2.57 (significance level = 1%). Each of the hypotheses listed below were reviewed based on findings followed by a summary to conclude this chapter. The discussion and implications of the hypotheses testing have been taken up in the next chapter.

3.9.1 The Effects of Supportive, Innovative and Bureaucratic Cultures on Group Commitment

Hypotheses 5(a), 5(b) and 5(c) were tested to examine the influences of supportive, bureaucratic and innovative cultures on group commitment. The effect of supportive, innovative and bureaucratic cultures on group commitment is summarized in table 3.15.

Table 3.15: Hypothesis Testing: The Effect of Different Cultures on Group
Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{5(a)}$: GC ← SC	+	.20**	2.08	Accepted
$H_{5(b)}$: GC ← BC	+	.10**	1.92	Accepted
$H_{5(c)}$: GC ← IC	-	.26**	-2.75	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio. ** β is significant at .05
level.

Group commitment was predicted by supportive culture (β=.20, p<.05) and
bureaucratic culture (β=.10, p<.05). The results of this study converge with the
findings of Boon et al. (2007) that cultures that are supportive and power-oriented
generate group commitment. Hence, hypotheses 5(a) and 5(b) were accepted.
Although innovative culture and group commitment had a significant bivariate
correlation (r=.42), IC had negative significant impact on GC (β=-.26). The
hypothesized path between GC and IC was opposite of expected direction. Hence
hypothesis 5(c) was not supported.

**3.9.2 The Effects of Supportive, Innovative and Bureaucratic Cultures on Job
Involvement**

Hypotheses 5(d), 5(e) and 5(f) were tested to examine the influences of supportive,
bureaucratic and innovative cultures on job involvement. The effect of supportive,
innovative and bureaucratic cultures on job involvement is summarized in table 3.16.

Table 3.16: Hypothesis Testing: The Effect of Different Cultures on Job Involvement

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{5(d)}$: JI ← SC	-	.05	1.15	Refuted
$H_{5(e)}$: JI ← BC	+	.06	1.61	Refuted
$H_{5(f)}$: JI ← IC	+	.10	.95	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio.

Although supportive (r=.42), bureaucratic (r=.33) and innovative (r=.42) cultures had significant bivariate correlation (r=.42) with group commitment, JI was not significantly impacted by SC (β=-.05, p=.66), BC (β=.06, p=.19) and IC (β=.10, p=.35). Hence, hypotheses 5(d), 5(e) and 5(f) were refuted. Past research by Shore et al. (2004) found large effect of supportive, innovative and bureaucratic cultures on job involvement.

3.9.3 The Effects of Supportive, Innovative and Bureaucratic Cultures on Normative Commitment

Hypotheses 5(g), 5(h) and 5(i) were tested to examine the influences of supportive, bureaucratic and innovative cultures on normative commitment. The effect of supportive, innovative and bureaucratic cultures on normative commitment is summarized in table 3.17.

Table 3.17: Hypothesis Testing: The Effect of Different Cultures on Normative Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{5(g)}$: NC ← SC	-	.15	-1.29	Refuted
$H_{5(h)}$: NC ← BC	-	.14**	-2.72	Refuted
$H_{5(i)}$: NC ← IC	+	.19**	2.72	Accepted

Although supportive (r=.31) and bureaucratic (r=.17) cultures had significant bivariate correlation with normative commitment, NC was not significantly impacted by SC (β=-.15, p=.66), NC was negatively impacted by BC (β=-.14, p=.007) and positively impacted by IC (β=.19, p=.007). The hypothesized path between BC and NC and between SC and NC was opposite of expected direction. Hence, hypotheses 5(g) and 5(h) were refuted and hypothesis 5(i) was accepted. This implies innovative cultures give rise to normative commitment in employees. However, in the research conducted by Meyer et al. (2012), individuals were obligated to stay with cultures, which are hierarchical and give the scope for learning and innovation.

3.9.4 The Effects of Supportive, Innovative and Bureaucratic Cultures on Continuance Commitment

Hypotheses 5(j), 5(k) and 5(l) were tested to examine the influences of supportive, bureaucratic and innovative cultures on continuance commitment. The effect of supportive, innovative and bureaucratic cultures on continuance commitment is summarized in table 3.18.

Table 3.18: Hypothesis Testing: The Effect of Different Cultures on Continuance Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
H$_{5(j)}$: CC ← SC	-	.14	-1.48	Refuted
H$_{5(k)}$: CC ← BC	+	.03	.35	Refuted
H$_{5(l)}$: CC ← IC	-	-.01	.07	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio. ** β is significant at .05 level.

These hypotheses were based on earlier studies suggesting that employees are likely to continue working for the organisation when there is stability, support and

psychological benefits (Clugston et al., 2000). Although supportive (r=.22), bureaucratic (r=.11) and innovative (r=.33) cultures had significant bivariate correlation with continuance commitment, CC was not significantly impacted by SC (β=-.14, p=.25), BC (β=.03, p=.61) and IC (β=-.01, p=.93). Hence, hypotheses 5(j), 5(k) and 5(l) were refuted.

3.9.5 The Effects of Supportive, Innovative and Bureaucratic Cultures on Organisational Learning

Hypotheses 5(m), 5(n) and 5(o) were tested to examine the influences of supportive, bureaucratic and innovative cultures on organisational learning. The effect of supportive, innovative and bureaucratic cultures on organisational learning is summarized in table 3.19.

Table 3.19: Hypothesis Testing: The Effect of Different Cultures on Organisational Learning

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{5(m)}$: OL ← SC	+	.26**	4.08	Accepted
$H_{5(n)}$: OL ← BC	+	.10**	2.04	Accepted
$H_{5(o)}$: OL ← IC	+	.23**	2.68	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio. ** β is significant at .05 level.

OL was significantly impacted by SC (β=.26, p=.008), BC (β=.10, p=.02) and IC (β=.23, p=.01). Hence, hypotheses 5(m), 5(n) and 5(o) were accepted. These results are in agreement to the findings of Sanz Valle et al. (2011) where supportive culture has higher impact on organisational learning compared to bureaucratic culture and innovative culture.

3.9.6 The Effects of Affective Trust and Cognitive Trust on Group Commitment

Hypotheses 6(a) and 6(b) were tested to examine the influences of affective and cognitive trust on group commitment. The effect of affective and cognitive trust on group commitment is summarized in table 3.20.

Table 3.20: Hypothesis Testing: The Effect of Affective and Cognitive Trust on Group Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{6(a)}$: GC ← AT	+	.15**	2.70	Accepted
$H_{6(b)}$: GC ← CT	+	.02	.29	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio. ** β is significant at .05 level.

Although affective (r=.45) and cognitive (r=.45) trust had significant bivariate correlation with group commitment, GC was not significantly impacted by CT (β=.02, p=.76). AT significantly predicted GC (β=.15, p=.03). Hence, hypothesis 6(a) was accepted and 6(b) was refuted.

3.9.7 The Effects of Affective Trust and Cognitive Trust on Job Involvement

Hypotheses 6(c) and 6(d) were tested to examine the influences of affective and cognitive trust on job involvement. The effect of affective and cognitive trust on job involvement is summarized in table 3.21.

Table 3.21: Hypothesis Testing: The Effect of Affective and Cognitive Trust on Job Involvement

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{6(c)}$: JI ← AT	+	.02	.07	Refuted
$H_{6(d)}$: JI ← CT	+	.21*	3.46	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio. ** β is significant at .05 level.

Although affective (r=.55) and cognitive (r=.55) trust had significant bivariate correlation with job involvement, JI was not significantly impacted by AT (β=.02, p=.88). CT significantly predicted JI (β=.21, p=.003). Hence, hypothesis 6(c) was refuted and 6(d) was accepted.

3.9.8 The Effects of Affective Trust and Cognitive Trust on Normative Commitment

Hypotheses 6(e) and 6(f) were tested to examine the influences of affective and cognitive trust on normative commitment. The effect of affective and cognitive trust on normative commitment is summarized in table 3.22.

Table 3.22: Hypothesis Testing: The Effect of Affective and Cognitive Trust on Normative Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{6(e)}$: NC ← AT	-	.15	-2.44	Refuted
$H_{6(f)}$: NC ← CT	+	.21*	3.18	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio. * β is significant at .001 level

Although affective (r=.49) and cognitive (r=.46) trust had significant bivariate correlation with normative commitment, NC was not significantly impacted by AT (β=-.15, p=.06). CT significantly predicted NC (β=.21, p=.004). Hence, hypothesis 6(e) was refuted and 6(f) was accepted.

3.9.9 The Effects of Affective Trust and Cognitive Trust on Continuance Commitment

Hypotheses 6(g) and 6(h) were tested to examine the influences of affective and cognitive trust on continuance commitment. The effect of affective and cognitive trust on normative commitment is summarized in table 3.23.

Table 3.23: Hypothesis Testing: The Effect of Affective and Cognitive Trust on Continuance Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{6(g)}$: CC ← AT	+	.07	2.14	Refuted
$H_{6(h)}$: CC ← CT	+	.12	1.43	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio.

Although affective (r=.47) and cognitive (r=.48) trust had significant bivariate correlation with continuance commitment, CC was not significantly impacted by AT (β=.07, p=.37) and CT (β=.12, p=.09). Hence, hypotheses 6(g) and 6(h) were refuted.

3.9.10 The Effects of Affective Trust and Cognitive Trust on Organisational Learning

Hypotheses 6(i) and 6(j) were tested to examine the influences of affective and cognitive trust on organisational learning. The effect of affective and cognitive trust on organisational learning is summarized in table 3.24.

Table 3.24: Hypothesis Testing: The Effect of Affective and Cognitive Trust on
Organisational Learning

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{6(i)}$: OL ← AT	-	.19*	-3.00	Refuted
$H_{6(j)}$: OL ← CT	+	.33*	5.66	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio. * β is significant at .001 level.

Although affective (r=.52) and cognitive (r=.52) trust had significant bivariate correlation with organisational learning, OL was not significantly impacted by AT (β=-.19, p=.004). CT significantly predicted OL (β=.31, p<.001). Hence, hypothesis 6(i) was refuted and 6(j) was accepted.

3.9.11 The Effects of Participation in Decision Making on Group Commitment, Job Involvement, Normative Commitment and Continuance Commitment

Hypotheses 7(a), 7(b), 7(c) and 7(d) were tested to examine the influences of participation in decision making on group commitment, job involvement, normative commitment and continuance commitment. The effect of participation in decision making on the outcomes is summarized in table 3.25.

Table 3.25: Hypothesis Testing: The Effect of Participation in Decision Making on
Group Commitment, Job Involvement, Normative Commitment and
Continuance Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{7(a)}$: GC ← PDM	-	.009	-1.13	Refuted
$H_{7(b)}$: JI ← PDM	+	.17**	2.75	Accepted
$H_{7(c)}$: NC ← PDM	+	.25**	3.88	Accepted
$H_{7(d)}$: CC ← PDM	+	.12	1.34	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio. ** β is significant at .05 level.

Although participation in decision making had significant bivariate correlation with group commitment (r=.52) and continuance commitment (r=.52), GC (β=-.009, p=.80) and CC (β=.12, p=.21) were not significantly impacted by PDM. PDM significantly predicted JI (β=.17, p=.02) and NC (β=.25, p=.002). Hence, hypothesis 7(a) and 7(d) were refuted. Hypotheses 7(b) and 7(c) were accepted.

3.9.12 The Effects of Participation in Decision Making on Organisational Learning

Hypothesis 7(e) was tested to examine the influences of participation in decision making on organisational learning. The effect of participation in decision making on organisational learning is summarized in table 3.26.

Table 3.26: Hypothesis Testing: The Effect of Participation in Decision Making on Organisational Learning

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
H$_{7(e)}$: OL ← PDM	+	.28*	4.18	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio. * β is significant at .001 level.

The effect of participation in decision making on the outcomes is summarized in table 3.26. PDM significantly predicted OL (β=.28, p<.001). This indicates hypothesis 7(e) was accepted.

3.9.13 The Effects of Organisational Learning on Group Commitment, Job Involvement, Normative Commitment and Continuance Commitment

Hypotheses 8(a), 8(b), 8(c) and 8(d) were tested to examine the influences of organisational learning on group commitment, job involvement, normative

commitment and continuance commitment. The effect of organisational learning on the outcomes is summarized in table 3.27.

Table 3.27: Hypothesis Testing: The Effect of Organisational Learning on Group
Commitment, Job Involvement, Normative Commitment and Continuance
Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{8(a)}$: GC ← OL	+	.17**	2.90	Accepted
$H_{8(b)}$: JI ← OL	+	.37*	5.49	Accepted
$H_{8(c)}$: NC ← OL	-	.02	-.73	Refuted
$H_{8(d)}$: CC ← OL	-	.13	-1.37	Refuted

Note: β – standardized path coefficient, C.R. – critical ratio.* β is significant at .001 level. ** β is significant at .05 level.

Organisational Learning has predicted group commitment (β=.17, p=.009) and job involvement (β=.37, p<.001). Hence, hypotheses 8(a) and 8(b) were accepted. Although organisational learning had significant bivariate correlation with normative commitment (r=.52) and continuance commitment (r=.52), NC (β=-.02, p=.76) and CC (β=-.13, p=.08) were not significantly impacted by PDM. Hence, hypotheses 8(c) and 8(d) were refuted.

3.9.14 Interrelationship among Commitment forms

Hypotheses 9(a), 9(b) and 9(c) were tested to examine the influences of job involvement on group commitment, normative commitment and continuance commitment. The effect of job involvement on the outcomes is summarized in table 3.28.

Table 3.28: Hypothesis Testing: Impact of Job Involvement on Group Commitment,
Normative Commitment and Continuance Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{9(a)}$: GC ← JI	+	.55*	8.35	Accepted
$H_{9(b)}$: NC ← JI	+	.57*	7.12	Accepted
$H_{9(c)}$: CC ← JI	+	.25**	2.26	Accepted

Note: β - standardized path coefficient, C.R. – critical ratio.* β is significant at .001 level. ** β is significant at .05 level.

JI has predicted GC (β=.55, p<.001), NC (β=.57, p<.001) and CC (β=.25, p<.001). Hypothesis 9(d) was tested to examine the influences of group commitment on continuance commitment. Hypothesis 9(e) was tested to examine the influences of normative commitment on continuance commitment. The effect of group commitment and normative commitment on the outcomes is summarized in table 3.29.

Table 3.29: Hypothesis Testing: Impact of Group Commitment and Normative
Commitment on Continuance Commitment

Hypothesized path	Direction	Beta (β) estimate	C.R./t-value	Decision
$H_{9(d)}$: CC ← GC	-	.03	-.58	Refuted
$H_{9(e)}$: CC ← NC	+	.55*	5.02	Accepted

Note: β – standardized path coefficient, C.R. – critical ratio.* β is significant at .001 level. ** β is significant at .05 level.

Although GC had significant bivariate correlation with CC (r=.52), CC was not significantly impacted by GC (β=-.03, p=.59). Hence, hypothesis 9(d) was refuted. NC has predicted CC (β=.55, p<.001). Hypothesis 9(e) was thus accepted.

3.9.15 Mediation Effect

In the diagram for hypothesis testing (Figure 1.1), organisational learning was hypothesized as mediating the relationship between supportive culture and group commitment and also between supportive culture and job involvement. The mediating role of organisational learning was tested based on the suggestions of Baron and Kenny (1986). The mediation results of organisational learning between supportive culture and group commitment are presented in table 3.30.

Table 3.30: Direct, Indirect and Total Effects for Mediation by Organisational Learning between Supportive Culture and Group Commitment

Hypotheses	Paths	Variable	OL			GC			Mediation effect
			Direct	Indirect	Total	Direct	Indirect	Total	
$H_{10}(a)$	SC → OL → GC	SC	.26*	.00	.26*	.20*	.07	.27*	Accepted

Note: Standardized path estimates are reported; * denotes significant at $p<.001$ level; SC – supportive culture, OL – organisational learning, GC – Group Commitment.

The present study hypothesized that organisational learning will mediate the relationship between supportive culture and group commitment. There exists significant positive path from supportive culture to group commitment and hence hypothesis 5(a) was accepted. Similarly, there exists significant path between supportive culture and organisational learning and between organisational learning and group commitment. Hence, hypotheses 5(m) and 8(a) were accepted. Next, the mediating role of organisational learning between supportive culture and group commitment is examined. The findings indicated significant path from supportive culture to organisational learning and also a significant path from organisational learning to group commitment. Sobel z value for the indirect path was 5.15, $p < 0.01$. For Sobel's (1982) test, the statistics are compared with the standard prior critical values (z = 1.645 when $p<.05$, z = 2.326 when $p<.01$). Hence, the findings are consistent with the possibility that organisational learning is a mediator between supportive culture and group commitment. Thus, hypothesis 10(a) was accepted.

Table 3.31: Direct, Indirect and Total Effects for Mediation by Organisational Learning between Supportive Culture and Job Involvement

Hypotheses	Paths	Variable	OL			JI			Mediation effect
			Direct	Indirect	Total	Direct	Indirect	Total	
$H_{10}(b)$	SC → OL → JI	SC	.54*	.00	.54*	.08	.11	.19	Refuted

Note: * denotes significant at $p<.001$ level; SC–supportive culture, OL–organisational learning, JI – job involvement.

Next, the study examined the mediating role of organisational learning between supportive culture and job involvement. The mediation results of organisational learning between supportive culture and job involvement are presented in table 3.31. There exists significant positive path from supportive culture to organisational learning and hence hypothesis 5(m) was accepted. Similarly, there exists significant path between organisational learning and job involvement. Hence, hypothesis 8(b) was accepted. Next, the mediating role of organisational learning between supportive culture and job involvement was examined. The findings indicated significant path from supportive culture to organisational learning and also a significant path from organisational learning to job involvement. However, the findings revealed that there is no significant path between supportive culture and job involvement and hypothesis 5(d) was refuted. This indicates that mediation condition is not satisfied according to Baron and Kenny (1986) since all three paths were not significant in the hypothesis 10(b). Sobel z value for the indirect path between supportive culture and job involvement was computed and was found to be .11, $p >$ 0.05. For Sobel's (1982) test, the statistics are compared with the standard prior critical values (z = 1.645 when $p<.05$, z = 2.326 when $p<.01$). This indicated that findings are not consistent with the possibility that organisational learning is a mediator between supportive culture and job involvement. Thus hypothesis 10(b) was refuted.

According to Baron and Kenny (1986), the chances of the effect of indirect path reducing from statistical significance to 0 is highly unlikely in psychological

research. The change in regression coefficient represents the degree to which the effect was reduced. This acts as an indicator of the mediator's potential. The statistical significance of this decrease can be tested in predictive power. The techniques to assess significance test have been presented by Holmbeck (2002), Baron and Kenny (1986) and Sobel (1982, 1988). These formula yield a z score, which can then be compared with a prior critical value (z = 1.645 when $p< .05$, z = 2.326 when $p< .01$). $H_{6(c)}$ and $H_{6(d)}$ were not examined for Baron and Kenny's (1986) test since IC does not have an impact on GC and JI. So hypotheses $H_{10(c)}$ and $H_{10(d)}$ were refuted. Findings from these tests are reported below.

Table 3.32: Summary of Hypothesized Mediation Relationships

Hypotheses Statements	Decision
$H_{10(a)}$: Organisational learning will mediate the relationship between supportive culture and group commitment.	Accepted
$H_{10(b)}$: Organisational learning will mediate the relationship between supportive culture and job involvement.	Refuted
$H_{10(c)}$: Organisational learning will mediate the relationship between innovative culture and group commitment.	Refuted
$H_{10(d)}$: Organisational learning will mediate the relationship between innovative culture and job involvement.	Refuted

Common method bias could augment the relationship between the variables in the study since all measures were self-reported assessments. However, this was not a problem because Harman's test could not obtain a common latent factor to account for the covariance in the independent variables and dependent variables (Podsakoff and Organ, 1986). Based on a series of items, to be analysed subsequently, this study obtained a sample of 712 respondents who responded voluntarily and sincerely.

Survey data based on self-reports may be subject to social desirability bias (Podsakoff and Organ, 1986). A Harman's one-factor test was performed on the items included in the models and no general factor was found. However, assurance of anonymity had reduced this bias even when responses are gathered from survey (Konrad and Linnehan, 1995). However, recent studies have shown that any bias due to common method variance is often only minor (Spector, 2006; Meade, Watson and Kroustalis, 2007). Moreover, the presence of common method bias was ruled out from the study by using Harman's single factor test which did not appear to be present (Konrad and Linnehan, 1995; Podsakoff and Organ, 1986).

3.9.16 Competitive Model Fit Strategy

An alternate model was analyzed apart from the hypothesized model and tested for model fit indices. This alternate model had the same variables except that the directions among the commitment variables were altered in opposite directions as that of the hypothesized model. The fit indices were found to be better for the hypothesized model (χ^2 = 4998.54, χ^2/df = 1.76, GFI = .90, CFI = .90, RMSEA = .03) than the alternate model (χ^2 = 4998.54, χ^2/df = 1.79, GFI = .82, CFI = .88, RMSEA = .03).

Table 3.33: Fit Measures of the Two Models

Model	χ^2	χ^2/df	p	GFI	CFI	RMSEA
Hypothesized model	4998.54	1.76	$p<.01$	.90	.90	.03
Alternate model	4998.54	1.79	$p<.01$	.82	.88	.03

3.10 Summary of the Results

Hypothesis 1 concerned the relationship between age and commitment. The results of the analysis revealed that age was positively related to continuance commitment and job involvement. Hence, hypotheses $H_{1(a)}$ and $H_{1(d)}$ were accepted. However, age was

not positively related to normative commitment and group commitment. Hence, hypotheses $H_{1(b)}$ and $H_{1(c)}$ were refuted.

Hypothesis 2 was related to the relationship between marital status and commitment. It was found that marital status was not positively related to continuance commitment, normative commitment, group commitment and job involvement. Therefore, hypotheses $H_{2(a)}$, $H_{2(b)}$, $H_{2(c)}$ and $H_{2(d)}$ were refuted.

Hypothesis 3 concerned the relationship between education and commitment. The findings revealed that education is positively related to continuance commitment and normative commitment. Hence, hypotheses $H_{3(a)}$ and $H_{3(b)}$ were accepted. However, education was not found to be related to group commitment and job involvement. Hence, hypotheses $H_{3(c)}$ and $H_{3(d)}$ were refuted.

Hypothesis 4 was related to the relationship between tenure and commitment. Tenure was found to be positively related to continuance commitment, normative commitment, group commitment and job involvement. Therefore, hypotheses $H_{4(a)}$, $H_{4(b)}$, $H_{4(c)}$ and $H_{4(d)}$ were accepted.

Hypotheses 5(a), 5(b) and 5(c) concerned the impact of supportive, bureaucratic and innovative culture on group commitment. Supportive culture was found to be positively and significantly related to group commitment ($\beta=.20$, $p<.05$). Bureaucratic culture was also found to be positively and significantly related to group commitment ($\beta=.20$, $p<.05$). Hence, hypotheses $H_{5(a)}$ and $H_{5(b)}$ were accepted. However, innovative culture was not found to have positive relationship with group commitment ($\beta=-.26$, $p<.05$). Hence, hypothesis $H_{5(c)}$ was refuted.

Hypotheses 5(d), 5(e) and 5(f) were related to the influence of supportive, bureaucratic and innovative cultures on job involvement. The findings revealed that job involvement is not influenced significantly by supportive culture ($\beta=-.05$, $p=.66$), bureaucratic culture ($\beta=.06$, $p=.19$) and innovative culture ($\beta=.10$, $p=.35$). Thus, hypotheses $H_{5(d)}$, $H_{5(e)}$ and $H_{5(f)}$ were refuted.

Hypotheses 5(g), 5(h) and 5(i) concern with the impact of supportive, bureaucratic and innovative cultures on normative commitment. It was found that normative commitment was influenced by innovative culture ($\beta=.19$, $p<.05$).

Therefore, hypothesis $H_{5(i)}$ was accepted. However, it was not influenced by supportive culture (β=-.15, p=.20) and bureaucratic culture (β=-.14, p=.007). Therefore, hypotheses $H_{5(g)}$ and $H_{5(h)}$ were refuted.

Hypotheses 5(j), 5(k) and 5(l) were related to the relationship between organisational culture and continuance commitment. The findings revealed that continuance commitment is not influenced by supportive culture (β=-.14, p>.05), bureaucratic culture (β=.03, p>.05) and innovative culture (β=-.01, p>.05). This led to rejection of hypotheses $H_{5(j)}$, $H_{5(k)}$ and $H_{5(l)}$.

Hypotheses 5(m), 5(n) and 5(o) were related to the influences of supportive, bureaucratic and innovative cultures on organisational learning. It was found that supportive culture is significantly and positively related to organisational learning (β=.26, p=.008). Bureaucratic culture was also found to be significantly and positively related to organisational learning (β=.15, p<.05). Innovative culture was also found to be significantly and positively related to organisational learning (β=.23, p<.05). Thus, hypotheses $H_{5(m)}$, $H_{5(n)}$ and $H_{5(o)}$ were accepted.

Hypotheses 6(a), 6(b), 6(c) and 6(d) concerned the impact of affective trust and cognitive trust on group commitment and job involvement. The findings revealed that affective trust was positively and significantly related to group commitment (β=.15, p=.03). Thus, hypothesis $H_{6(a)}$ was accepted. However, cognitive trust was not related to group commitment (β=.02, p=.76). Thus, hypothesis $H_{6(b)}$ was refuted. Affective trust was not found to be positively related to job involvement (β=.02, p=.88). Hypothesis $H_{6(c)}$ was refuted. Cognitive trust was found to be significant and positively related to job involvement (β=.21, p=.003). Thus, hypothesis $H_{6(d)}$ was accepted.

Hypotheses 6(e), 6(f), 6(g) and 6(h) were related to the influences of affective trust and cognitive trust on normative commitment and continuance commitment. Cognitive trust was found to be positively and significantly related to normative commitment (β=.21, p=.004). Therefore, hypothesis $H_{6(f)}$ was accepted. However, it was found that affective trust was not related to normative commitment (β=-.15, p=.06). Affective trust was not found to be positively related to continuance commitment (β=.07, p=.37). Cognitive trust was also not found to be related to

continuance commitment (β=.12, p=.09). Therefore, hypotheses H$_{6(e)}$, H$_{6(g)}$ and H$_{6(h)}$ were refuted.

Hypotheses 6(i) and 6(j) concerned the influences of affective trust and cognitive trust on organisational learning. The findings revealed that affective trust did not have positive impact on organisational learning (β=-.19, p=.004). Hence, hypothesis H$_{6(i)}$ was refuted. Cognitive trust was found to be significantly and positively related to organisational learning (β=.33, p<.001). Hypothesis H$_{6(j)}$ was accepted.

Hypothesis 7 was related to the relationship between participation in decision making and commitment. Participation in decision making was found to be significantly and positively related to job involvement (β=.17, p<.05). Participation in decision making was found to be significantly and positively related to normative commitment (β=.25, p<.05). Participation in decision making was found to be significantly and positively related to organisational learning (β=.28, p<.001). These relations led to the acceptance of the hypotheses H$_{7(b)}$, H$_{7(c)}$ and H$_{7(e)}$. However, participation in decision making was not positively related to group commitment (β=-.009, p=.80) and not significantly related to continuance commitment (β=.12, p=.21). So, hypotheses H$_{7(a)}$ and H$_{7(d)}$ were refuted.

Hypothesis 8 concerned the influences of organisational learning on commitment. The findings of this study revealed that organisational learning was significantly and positively related to group commitment (β=.17, p<.001). Organisational learning was significantly and positively related to job involvement (β=.37, p<.001). Thus, hypotheses H$_{8(a)}$ and H$_{8(b)}$ were accepted. However, organisational learning was not positively related to normative commitment (β=-.02, p=.76) and continuance commitment (β=-.13, p=.08). Therefore, hypotheses H$_{8(c)}$ and H$_{8(d)}$ were refuted.

Hypothesis 9 concerned with the interrelationship among commitment forms. The findings of this study revealed that job involvement was significantly and positively related to group commitment (β=.55, p<.001). Job involvement was significantly and positively related to normative commitment (β=.57, p<.001). Job involvement was significantly and positively related to continuance commitment

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(β=.25, p<.05). Therefore, hypotheses H$_{9(a)}$, H$_{9(b)}$ and H$_{9(c)}$were accepted. However, group commitment was not positively related to continuance commitment (β=-.03, p=.59). So, hypothesis H$_{9(d)}$ was refuted. Normative commitment was significantly and positively related to continuance commitment (β=.55, p<.001). Thus, hypothesis H$_{9(e)}$ was accepted.

Hypothesis 10 was related to the role of organisational learning as a mediator between culture and commitment. Hypothesis 10(a) found organisational learning as a mediator between supportive culture and group commitment. All mediation conditions laid down by Baron and Kenny (1986) were fulfilled using organisational learning as a mediator. However, hypotheses 10(b), 10(c) and 10(d) were refuted as they did not fulfill the conditions for mediation as recommended by Baron and Kenny (1986) or because of negative relationship between variables.

CHAPTER 4

DISCUSSION

CHAPTER 4

DISCUSSION

4.1 Discussion

This chapter provides the results of statistical analyses and their findings. The findings are explained in detail sequentially based on the order of the objectives. The results depicted distinctive patterns of relationships regarding normative commitment, continuance commitment, job involvement and group commitment in public sector undertakings (PSUs). These results revealed positive relationship between job involvement, normative commitment and group commitment. Hence, it is concluded that the commitment forms do not have an inherent conflict among themselves.

The results of this study have shown that participation in decision making, affective trust, cognitive trust alongwith the three domains of organisational culture have distinctive influence on normative commitment, continuance commitment, group commitment and job involvement in public sector undertakings. These results have cleared our understanding of the multidimensional concept of commitment. They have also helped to find the antecedents of the different commitment forms.

Many relationships between independent variables and dependent variables were examined simultaneously by means of structural equation modeling. The structural model described relationships between the dimensions of organisational culture, trust and participation in decision making and commitment forms (dependent variable) and organisational learning (mediating variable). A structural model with completely standardized path coefficients was outlined in Figure 3.15 in the previous chapter. This model showed a good fit with the data ($\chi^2 = 4998.54$, $\chi^2/df = 1.76$, GFI = .90, CFI = .90, RMSEA = .03).

4.1.1 Primary Objectives

4.1.1.1 Objective 1: Demographics – Commitment Relationship

This study shows high levels of all forms of commitment among all categories of demographic classification by age, marital status, education and tenure. The results of all hypotheses are presented in table 3.1.

This study has demonstrated that age was positively related to continuance commitment and job involvement thus partially supporting past studies between age and commitment (Innocenti et al., 2012). This is most probably because of the reason that older employees have less employment options compared to younger employees in India (Ahmad, 2011) and also, leaving the organisation is likely to cost them with regard to the benefits they receive (Parasuraman and Nachman, 1987). Most of them lower their career expectations because they are burdened with other thoughts comprising financial and family related concerns. Thus they do not prefer change. They are often resistant to learn new skills. Also, they are often content with their present job schedule and thus exhibit good job involvement. Ego identity of the person starts merging with his job. With increase in age, an employer starts taking his identity from the job. It forms an important part of their life. Self-esteem of aged employees depends on the level of performance in their jobs. Thus the call for more research (Jha, 2011) to understand the relation between age and commitment has been addressed.

However, age was not positively related to normative and group commitment contradicting past conclusions (Gaillard and Desmette, 2008). This leads to the fact that an older employee does not feel obligated to remain with the organisation. This could be due to the reason that PSUs offer very good quality of work life (Jyothibabu, Farooq and Pradhan, 2010). Another possibility is that an organisation might perceive that an older employee does not have many options if he stays back for a long duration. In addition, not all older employees will be reluctant to learn new skills. So adapting to changing business needs is difficult for few of them.

This study showed that marital status was not positively related to any of the commitment forms, thus not being supportive of past studies (Jena, 2015; Selmer and

Lauring, 2011). This could be because of equal benefits being given to married and unmarried employees. PSUs offer good learning and training opportunities (Jyothibabu, Farooq and Pradhan, 2010). Hence, performance of both married and non-married employees will be the same. This is an indication that all employees are equally committed to their organisations, no matter they are married or unmarried. Married and unmarried employees have their own preferences and priorities which make them committed to their work. Unmarried employees would want to excel in their professional lives. Married employees would like to have fast hikes and promotions so that their efforts are recognized and paid off in the form of benefits like respect, social status, food allowances. Thus marital status did not have significant impact on any of the commitment forms.

The results of this study showed that education was positively related to continuance and normative commitments. In addition, level of education does not affect group commitment and job involvement. These findings contradict past studies (Peterson and Xing, 2007; Mathieu and Zajac, 1990). The more education one gets, the more opportunities they get. Their expectations are also more. So they prefer to show their loyalty to their organisation by being emotionally attached and feeling obligated to serve the organisation where they are interested to shower their knowledge and skills. Highly educated employees are often talented and independent. They do not always prefer to work in groups. They often work in areas which are of interest to them. It is this interest that initiates job involvement in them. In addition, they may look for comfort and benefits in the work they perform. Once benefits are realized, they feel affectively attached and obligated to work for their organisation.

This study also revealed that continuance commitment, normative commitment, group commitment and job involvement were positively affected by tenure of an employee. These results support Mathieu and Zajac's (1990) findings that tenure can impact commitment. This is most likely due to the fact that an employee's sense of gratification for the organisation tends to increase with age. More time associated with the organisation makes him comfortable and used to the kind of treatment he receives and work conditions. In case of a new employment opportunity, an employee with longer tenure will always look for the benefits that he had been

receiving in his organisation till date. It would be difficult for him to leave his or her present organisation and opting for a new organisation if one has to forego the benefits that he or she had been receiving for so long. Hence he would be more comfortable emotionally as well as intellectually to continue working with the organisation. Over a period of time, it becomes natural on the part of employee to work for the betterment of the organisation so that it earns profits and achieves its goals. Thus he feels obligated to work by getting involved in the job along with his or her colleagues or work group.

4.1.1.2 Objective 2: Organisational Culture – Commitment and Organisational Culture – Organisational Learning Relationship

Regarding the relationship between organisational culture and commitment, the results demonstrated that supportive culture was positively related to group commitment and bureaucratic culture was positively related to group commitment. However, innovative culture was not positively related to group commitment. This may be because of the reason that employees who exhibit group commitment are the ones who perform their tasks working in groups or teams. In such cases, team spirit develops among individuals. Team spirit enhances commitment levels of employees. Supportive culture is characterized by confidence, encouraging, trusting, people-oriented and friendly work culture. Adjectives used for this culture are trusting, equitable, safe, social, encouraging, relationships-oriented and collaborative. Mutual trust, loyalty and support help to strengthen ties among individuals (Meyer, Stanley, Jackson, McInnis, Maltin and Sheppard, 2012).

Support for the above argument can be obtained by verifying previous research. Meyer et al. (2012) reported that mutual trust, loyalty and support help to strengthen ties among individuals. A study conducted by Wasti and Onder (2009) found that nature of culture can affect consequences of commitment. Bureaucracy can affect different forms of commitment. Certain level of hierarchy and control helps in performing work effectively on time in work groups. Innovative culture was not positively related to group commitment. This may be because of the reason that employees who want to acquire new skills and are highly curious to learn, prefer to

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have personal freedom to carry out work (Yiing and Ahmad, 2009). The innovative culture is known for creative and dynamic work environment. They dislike hindrances because it limits their innovative capabilities (Bigliardi et al., 2012).

The results of this study revealed that supportive culture was not positively related to job involvement. Bureaucratic culture was not significantly related to job involvement. Innovative culture is also not significantly related to job involvement. These results are in contradiction to past literature (Shore et al., 2006). This may be due to the reason that involvement of an employee with the job may depend only on the interest and passion of the employee. It is independent of the type of culture that prevails in the organisation. Employees get feedback from their seniors on the type of work they perform. This would provide them with sufficient motivation to carry out work and be passionate about their work irrespective of the type of culture prevalent in the organisations.

Findings revealed that neither supportive culture nor bureaucratic culture was positively and significantly related to normative commitment. This is contradictory to the previous findings (Chan, Snape and Redman, 2011). This could be because of the reason that normative commitment is unaffected by both supportive and bureaucratic cultures in public sector undertakings. These organisations offer very good stability to employees. Hence employees are relieved of the burden of instability. They tend to reciprocate their feeling of happiness by being obliged to work for the organisation. Thus, supportive and bureaucratic cultures do not positively relate with normative commitment. However, innovative culture was positively and significantly related to normative commitment. Innovative culture involves creative work environment. Employees can enjoy the freedom given to them to implement their ideas. They can work without hindrance (Yiing and Ahmad, 2009). Thus they feel happy about the fact that the organisation favours them. So the norm of reciprocity follows to oblige the return of favourable treatment by getting a feeling of obligation to remain committed to the organisation (Messner, 2013).

Also, the findings suggest that bureaucratic, supportive and innovative cultures were not positively and significantly related to continuance commitment. The reason for these findings can be explained by looking at the pattern of relationship

between culture and forms of commitment. Only group commitment was positively affected by supportive and bureaucratic culture. Rest forms of commitment were not affected by organisational culture. Both normative and continuance commitment are related to the intention of continuing to work for the organisation. Continuance commitment is based on side-bets or benefits that the employee will have to forego in case of leaving the organisation (Meyer and Allen, 1984, p.375). Normative commitment is the extent to which an employee feels obligated to remain committed to the organisation (Cohen, 2015). These two commitment forms are not related to bureaucratic and supportive cultures as per the findings of this study. Employees continue to receive benefits irrespective of the persisting culture in public sector undertakings (Gupta and Pannu, 2013). Hence, the result that organisational culture was not positively related to continuance commitment is quite obvious.

Further results revealed that supportive culture was significantly and positively related to organisational learning. Also, innovative culture was significantly and positively related to organisational learning. Bureaucratic culture was also significantly and positively related to organisational learning. In addition, strength of relationship is found to be highest for supportive culture compared to innovative culture, and strength was the least for bureaucratic culture. In other words, learning occurs when employees are ready to share knowledge among themselves and they are friendly to each other. This suggests that supportive culture is suitable for employees to keep learning new things. This finds support in past research done by Silverthorne (2004). Employees are motivated to learn when there is innovation in organisations. The finding suggests that innovative culture can promote organisational learning by providing employees the freedom to perform work. The findings also suggest that hierarchy and power can also promote learning. This is because a certain degree of power can be helpful to allow employees to learn new things.

4.1.1.3 Objective 3: Trust – Commitment and Trust – Organisational Learning Relationship

The findings revealed that affective trust was positively and significantly related to group commitment. This suggests bonding among group members generates group

commitment. This implies that greater the affective trust, greater will be the commitment among the group members. This is in agreement to the findings of Cho and Poister (2013). This will be helpful to the organisation in increasing the effectiveness of work. However, results indicated that cognitive trust was not positively related to group commitment. This suggests that knowledge or cognitive element does not contribute to enhancement of group commitment. This could be because commitment to the group depends on the bonding shared between employees. The findings suggest that knowledge does not affect group commitment. This leads to the fact that affective trust is very important than cognitive trust to build group commitment in employees.

Organisations may choose to consider group performance important for their growth. Hence, employees give more importance to generating effective group results. Trust is considered by employees as essential to build emotional relationships among themselves. Managers might trust only those members of a work group who consider the work important to be completed on time.

The results revealed that affective trust was not related to job involvement. This could be because job involvement is predicted by factors other than affective trust, for example, participation in decision making as found in results of this study. On the other hand, cognitive trust was positively and significantly related to job involvement. This suggests that job involvement is strongly affected by cognitive trust. Cognitive trust can be perceived as a reflection of work experiences. The more positive these experiences are, the higher is the job involvement. Cognition or knowledge helps employees to reduce inefficiencies in their work and effectiveness in work is maintained. Hence, employees get involved in their job in the long run.

Findings further revealed that affective trust was not positively related to normative commitment. Cognitive trust was positively related to normative commitment. This is because normative commitment is the obligation on the part of an employee to work for the organisation. This would come when he is supposed to perform at the workplace after a certain period of gaining knowledge (Appelbaum et al., 2013). The employer would be obligated to work after improving his skills in the organisation. The results also suggest that this obligation comes out of cognition

rather than bonding or emotional attachment among the employees. It is evident from the results that affective trust was not positively related to continuance commitment. This is in contradiction to past research (Mulki et al., 2006). This could be due to the reason that all employees enjoy equal facilities and side-bets in PSUs. Continuance commitment comes into reinforcement, as a result, of the thought of leaving the organisation. In addition, cognitive trust was also not related to continuance commitment. These results suggested that employees develop the will to continue working for the organisation even when they are not affectively and cognitively bonded to each other. This indicates that the commitment arising out of facilities or side-bets involved are not affected by affective trust and cognitive trust.

Findings revealed that cognitive trust was positively related to organisational learning. Organisational learning, in various forms, like, enriching one's knowledge by problem solving or collective work involving training sessions for improving performance, can help increase satisfaction by achieving sound knowledge in the area concerned. This is in accordance to a study by Swift and Hwang (2013). In order to promote organisation learning, knowledge is necessary. This favour is reciprocated by them in the form of enhanced job involvement. However, affective trust was not positively related to organisational learning. This suggests that organisational learning is dependent more on the level of exchange and sharing of work experiences rather than emotional bonding. This could be because of the reason that learning is dependent on knowledge more than bond shared between employees.

4.1.1.4 Objective 4: Participation in Decision Making – Commitment and Participation in Decision Making - Organisational Learning Relationship

Findings indicate that participation in decision making did not have significant impact on group commitment of employees. This is because participation in decision making can cause many disadvantages in a work group. There can be pressures arising from social systems to dominance by some member of the group due to unequal distribution of power. An influential member may cause other members to follow the decisions taken by him which may be disliked by other members. Hence, indecisiveness, lack of consensus and group conflicts might arise. In such situations,

the employee might feel neglected by his work group. Hence, he may not be able to identify with his work group to the required extent. The commitment towards his group decreases gradually.

It is clear from the results that participation in decision making was significantly and positively related tojob involvement of employees. Boon et al. (2007) had suggested that employees who participated in decisions reported good levels of job involvement. This implies that job involvement is strongly affected by freedom to make decisions at work andcan be perceived as a reflection of work experiences. The more positive these experiences, the higher the job involvement. Employees when rewarded with autonomy, better work life and flexible work hours, will increase the importance of work in their self image. This will be attributed in the form of adequate levels of involvement with the job.

Findings indicated that participation in decision making was positively related to normative commitment of employees. Garcia-Cabrera and Garcia-Soto (2012) had opined that ability to participate in making decisions may influence an employee's perception of interpersonal relationship with employer. Participation means each individual has been assigned some task or responsibility. Individuals have to work together and interact for the purpose of work. They need to collaborate and cooperate with each other to learn new ways of doing work. In this process, they feel obligated to work for their organisation. However, it is evident from the findings that participation in decision making was not related to continuance commitment of employees. This could be because of the reason that continuance commitment deals with forgoing the costs and benefits in the event of leaving the organisation. This is independent of the extent of participation in decisions.

Findings indicated that participation in decision making was positively related to organisational learning of employees. This was suggested to be researched by Chattopadhyay et al. (1999). When employees enjoy participation in decision making, they intend to learn, disseminate knowledge within groups and help in the effective functioning of the organisation. Learning occurs as a result of working over years, or in other words, experience gathered while working on different work aspects over time. Participation means each individual has been assigned some task or

responsibility. Participation makes every group member interact with each other to serve the purpose of work. If any employee has to clear a work-related query, he will seek help from fellow group members. In this process, learning takes place.

4.1.1.5 Objective 5: Organisational Learning – Commitment Relationship

Organisational learning was found to have a positive and significant relationship with group commitment and job involvement. The present finding is in accordance with previous research (Limpibunterng and Johri, 2009). This is because group learning increases communication among the group members. This helps to build strong social ties. Thus, guidance and support are exhibited by the group members towards each other. Problem-solving skills are enhanced. The feeling of identification of an employee towards his work group increases gradually. Commitment towards the work group also increases. In this way, when all work is shared by employees in a work group, a common level of understanding about different job related issues occurs. They are attached with common organisational goals, their commitment towards their work group is facilitated.

The results demonstrated that organisational learning had a positive and significant impact on job involvement. This finding is supported by Silverthorne's (2004) research. Learning is necessary in every step of work. It is a continuous process. Every work that is new and innovative would require certain amount of learning. This suggests that learning helps in making the job very important in the life of an employee. Organisational learning equips an employee with the necessary skills to work efficiently. This will help the employee in building strong ties with his or job. Hence he or she will be involved with the job.

Findings revealed that organisational learning is not related to normative commitment and continuance commitment. Since normative commitment arises out of obligation to remain with the organisation, it is not dependent on learning. Also, continuance commitment is concerned with the facilities and monetary benefits that an employee would have to forego if he decides to leave the job. This does not relate with organisational learning.

4.1.2 Secondary Objectives

4.1.2.1 Objective 1: Interrelationship among Multiple Commitments

The results revealed that job involvement was positively related to group commitment which is at par with past research (Randall and Cote, 1991). Social ties give rise to attachment with group members. This leads to commitment with the work group members as well as the job. On working with the group, the initial reference group gratifies one's needs for reassurance and guidance and it exerts a lasting influence over other behavioural attitudes like job involvement. Importance of job in the lives of employees should be perceived in their lives. This is when they tend to place more importance on trying to help their colleagues with their work which leads to teamwork and in this process, organisational learning is achieved.

Findings further revealed that job involvement was positively related to normative commitment and continuance commitment. This suggests that job involvement can give rise to normative commitment and continuance commitment. This finding gathers support from previous research (Kuruuzum et al., 2009). The finding suggests that involvement in the job can help improve the performance of the employee. Hence, he would be recognized and this would entitle him to benefits. This, in turn, can develop an obligation in him to work for the organisation.

Results suggested that group commitment was not related to continuance commitment. This indicates that working in a group is not related to the commitment needed to continue working with the organisation. This could be because group commitment involves many interactions with many group members which are independent of the intention to continue working for the organisation.

Results also suggested that normative commitment was related to continuance commitment. This result has verified Morrow's (1993) claims that commitment forms are consequences of each other. This finding suggests that obligation to work can also improve the desire to continue working for the organisation.

4.1.2.2   Objective   2:   Organisational   Learning   as   a   Mediator   between Organisational Culture and Commitment

The study has portrayed the interrelations among commitment forms and found organisational learning as a mediator between supportive culture and group commitment. This suggests that organisational learning can facilitate the impact of supportive culture on group commitment. This is because learning helps to increase the skills of employee and his confidence to work with other employees in the organisation (Raj and Srivastava, 2013). This helps him to improve commitment with work group members. Baron and Kenny (1986) suggested that three relations should be significant, that is, between independent variable to mediator variable and between mediator variable and outcome variable and between independent variable to outcome variable should be significant. In this study all these relations are significant. Hence, mediation by organisational learning was tested which is positive and in accordance with similar studies done in past (Raj and Srivastava, 2013).

However, organisational learning did not act as a mediator for the relationship between supportive culture and job involvement. Also, organisational learning did not act as a mediator for the relationships between innovative culture and group commitment, and also between innovative culture and job involvement. Here in these relationships, supportive culture and innovative culture are independent variables and group commitment, job involvement are the dependent variables. The relationship between independent variable and dependent variable is not significant. Hence, one of the three conditions or relationships in Baron and Kenny's (1986) method is not satisfied. This is why organisational learning could not act as a mediator. This could be because of the reason that job involvement and group commitment are not affected by innovative culture as demonstrated in table 3.30 in the previous chapter. Since there is no relation between the independent variable (innovative culture) and dependent variable (group commitment and job involvement) on the first place in this study, there is no third variable to play the role of mediator.

4.2 Implications

These findings carry many implications for Indian managers. It is important to identify the different forms of organisational commitment and develop measures to improve the same. The results reveal that employees' age, marital status, education and tenure contribute to different forms of commitment exhibited by employees. This study has demonstrated that individuals with equal educational level and tenure tend to exhibit group commitment. This finding can be leveraged by managers by putting individuals specialising in a particular area together in a work group. Employees can get psychological satisfaction from their job. This has the potential to make job situation central to their identity. Also, experienced employees can work together for good team productivity.

This study shows that, no matter, how an employee may be committed, that is, continuancely or normatively, it is necessary for an organisation to focus on these two commitments. In addition, work does not happen single handed. Work group members develop group commitment and over time, this form of commitment is also affected by certain demographic variables like tenure. Also, managers should focus on getting employees of all demographics to be equally involved in the job to generate maximum effectiveness.

The findings of this study are able to provide insight on the kind of organisation behaviour exhibited by employees of Indian public sector undertakings. This study has examined the impact of organisational culture on multiple commitments, organisational learning and this has not been tested empirically in previous research. Employees begin to appreciate the values, the expected behaviour, and social knowledge that are essential for effective organisational behaviour. Since organisational culture serves many purposes including establishing the norms for employee behaviour, it is advised to maintain a balance of all three dimensions of culture that is, supportive, innovative and bureaucratic. Workplaces think of ways to make the employees develop strong commitment towards the organisation to improve effectiveness. Workplaces should devise several innovative methods to enhance commitment of their employees and the consequent productive effectiveness. The

goal of this research is to explore issues pertaining to the influence of culture on different forms of commitment and organisational learning.

Results are relevant to top-level and middle-level management in which people are involved in the governance of the organisation, both directly and indirectly. Commitment forms like normative commitment, continuance commitment, job involvement and group commitment develop when an employee is motivated effectively. A good number of employees believe that working for extended hours increases productivity. However, it does not necessarily imply more productivity. Hence, there should be fixed working hours and optimum time management. Due to growing pressure, few employees who have personal obligation towards their families such as nursing mothers and stressed individuals, should be provided with flexible working hours. In this way, culture can become supportive to cater to different needs of employees.

Organisations can work towards building a highly competitive workforce by adopting three strategies. Firstly, a balance of innovative and supportive cultures should co-exist so that employees can perform efficiently. This would ensure employees' personal freedom to utilize their abilities. Secondly, the workplace should be dynamic enough to create employees with high commitment and high job involvement. Thirdly, the organisations should ensure that all employees get the necessary support, recognition and guidance in the work they perform. This strategy potentially generates cordial relations. Such a nurturing environment is conducive to promote job involvement, normative commitment and continuance commitment among employees.

The present study has been able to identify the role of employees' participation in decision making on attitudinal outcomes. The results are pertinent to top as well as middle level managers who are involved in the governance of the organisation directly and indirectly. As globalisation and economy is growing, there exists tough competition among the public sector undertakings. The recommendations of Black and Gregersen (1997) that organisations specify the extent, level and purpose of participation to minimise dissatisfaction and overcome the inherent paradoxical problems of participation are endorsed in the present study. The findings support calls

from previous researchers that increasing participation creates a stronger sense of ownership or identity and commitment with the job (Louis and Smith, 1992).

This study has also pointed the mediation effect byorganisational learning, which implies that if there exists a good organisational culture that promotes the interests of the employees, then organisations can help provide employees with better work experiences leading to enhanced commitment towards the organisation. Organisational learning in various forms like enriching one's knowledge by problem solving or collective work involving training sessions for improving performance can help increase satisfaction by achieving sound knowledge in the area concerned. In order to promote organisation learning, a supportive culture is necessary. Cultures that trust, support and nurture the interests of employees are often preferred. This favour is reciprocated by them in the form of enhanced commitment.

Employees need information, involvement and participation as prerequisites to develop the skills that contribute to positive autonomous outcomes. An implication of the present study is that all employees having significant amount of organisational commitment would have strong group commitment. Therefore, it is essential on the part of the organisation to ensure that employees are happy within their organisations. Fair measures should be adopted by the management like decentralising at all levels, giving recognition to the employees in the form of rewards and other beneficial measures like providing free canteen facilities and increasing remuneration for working overtime. Many individuals have a mindset that longer working hours is in the welfare of the organisation. However, longer working hours does not necessarily imply more productivity. Hence, the organisations should ensure fixed working hours and optimum time management. Also, in the light of changing competition, flexible working hours can be provided to employees who have personal obligation towards their families.

The public sector undertakings can work on building a highly competitive workforce by adopting three strategies. First, they can leverage the positive effects of employee participation by making decentralised structures. Decentralisation helps the employees feel that they have an active role in framing the policies of the organisation.Second, public sector undertakings should hold interactive sessions about

performance and responsibilities. Communication in these sessions would help to bring people from different departments together and discuss common technical and welfare issues related to the organisation. Such sessions would build group commitment as people sharing common interests would come forward in making positive results in the form of increased productivity and performance. Third, the organisations should ensure that the senior members recognise their junior colleagues as equally potential employees. This would provide the junior employees with the necessary support, recognition and guidance for better performance.

4.3 Conclusion

The purpose of the study was to examine the impact of organisational culture, participation in decision making and trust on different commitment forms. The relationship between organisational culture and group commitment reveals that supportive and bureaucratic cultures promote group commitment. The findings reveal that participation in decision making can enhance job involvement, normative commitment and organisational learning. This finding reinforces the fact that employees who are involved in decision making have the ability to share certain task or responsibility so that they feel they are contributing towards the success of the organisation. Through participation in decision making, managers can ensure that employees are committed and they learn within work groups.

The present study is the first of its kind to examine organisational culture in Indian public sector undertakings. A unique contribution of this study is that it has responses from employees working in different departments of public sector undertakings which are considered to be one of the significant contributors to foreign exchange earnings in India. It focuses on the importance of normative commitment and continuance commitment which is considered very crucial for employees to continue working and not quit. All three types of culture (supportive, innovative and bureaucratic) coexist in different departments within an organisation in India. Finally, this study is innovative as its implications have contributed to research in non-western economies, where very limited literature support is available regarding measures that

can be taken by managers to obtain desirable employee attitudes like normative commitment and continuance commitment.

Findings suggest that learning occurs when employees work together. In the event of problem solving, there is collective work towards finding a solution. Learning is a process of gaining knowledge and improving skills. Employees should be willing to learn throughout their working span. It includes the ability to solve problems critically. This helps to work together effectively and hence build commitment towards the organisation. Learning is a process of collective work towards a common goal. When the goal or learning is achieved, the employees of the group will feel a sense of attachment towards the group and hence group commitment is strengthened. Employees feel they can identify with the organisation more in terms of effectiveness, fulfilment, and job involvement.

Social needs of the employee would be met by having good colleagues at work. Rewards and recognition helps him or he gain esteem in the organisation. If the employee feels that his knowledge and skills are being recognised fully within the group and organisation, his desire of actualisation would be fulfilled. Creativity in the work environment would help him ensure aesthetic needs. The cumulative impact of these positive fulfilments would build commitment towards the organisation. Certain tasks in organisations involve working in groups or teams. In such cases, team spirit should develop among individuals. Team spirit helps to improve job involvement levels of employees in a developing country. Thus when the members of the work group of an individual provide support and guidance in work, the satisfaction obtained by good work will help in observing significant amount of group commitment. It has been observed that an individual spends about one-third of one's life at the workplace (Indiatoday, 2016). As a result, good work environment that results from working cooperatively would result in mental satisfaction and peace of mind. Their expectations would be fulfilled resulting from sharing work equally in groups.

4.4 Limitations

1. Organisational commitment forms like continuance commitment, normative commitment, group commitment and job involvement evolve over time during the various phases of business cycle in an organisation. Organisational commitment is dependent on external factors like economic and market conditions. Hence, future research can focus on looking at organisational commitment forms using longitudinal studies and including affective commitment.

2. This study specifically includes Indian public sector undertakings. Thus, the results of the study should be used carefully while applying to other companies such as multi-national companies (MNCs). The diverse sample from different MNCs could lead to better understanding of the model. The study considers the cross-sectional data only. This generates a future scope of testing causality with longitudinal data.

3. A combined quantitative and qualitative study might provide further insight into employees organisational commitment forms.

4. Data were collected from employees working in Public Sector Undertakings in the states of Orissa, Madhya Pradesh, Delhi, West Bengal, Assam, Maharashtra and Karnataka. However, precaution was taken to include data from these organisations so that maximum regions were covered across India.

5. A possible extension of this study can be to examine the effects of other variables, like, job satisfaction, as mediating variables in the relationship between antecedents and outcomes.

4.5 Contributions of the Thesis

1. The present study has addressed the ambiguity in organisational culture and this has cleared the researchers' understanding of the relationship between the different dimensions of organisational culture and organisational commitment in public sector undertakings.

2. Although, there are studies which have verified the relationship between participation in decision making and organisational commitment. But, the present study extends the literature by verifying the relationship between participation in

decision making and other commitment variables such as job involvement and group commitment.

3. Employees exhibit more than one form of commitment simultaneously in the workplace. This study has verified the impact of organisational culture, trust, and participation in decision making on multiple commitments such as, normative commitment, continuance commitment, job involvement, and group commitment in a single framework. This would open up new vistas for the development of knowledge in the areas not attempted so far.

4. Examination of mediating role of organisational learning between organisational culture, trust, and participation in decision making and multiple commitments such as organisational commitment, job involvement, and group commitment in a single framework is another area where the thesis has made significant contribution.

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APPENDICES

APPENDIX I

ABBREVIATIONS

BC – Bureaucratic culture

SC – Supportive culture

IC – Innovative culture

CT – Cognitive Trust

AT – Affective Trust

PDM - Participation in Decision Making

OL – Organizational Learning

OC – Organizational Commitment

GC – Group Commitment

NC – Normative Commitment

CC – Continuance Commitment

JI – Job Involvement

SEM – Structural Equation Modeling

PSUs – Public Sector Undertakings

APPENDIX II

QUESTIONNAIRES

Dear Respondent,

I am doing research in the area of Human Resources Management. I am in data collection stage at present. I have selected few persons for this purpose whose views, I consider valuable. You are one amongst them. Therefore, kindly go through the questions attached herewith and please mark your appropriate response. There are three sections and it will hardly take 30 minutes to mark for all the items. Please do not leave any item unmarked. Since there is no right or wrong answer, you are requested to express your views freely. <u>I assure you that your responses will be kept strictly confidential and will be solely used for academic purposes.</u>

Thanking you for your kind cooperation.

Yours Sincerely,

ShilpiSaha,

Research Scholar,

Department of Humanities, Social Sciences and Management,

NITK, Surathkal,

e-mail: shilpisaha@nitk.edu.in

General Information

Please put a tick mark [√] in the appropriate box

1. Gender   Male [ ]   Female [ ]

2. Age   [ ] 21-30 years   [ ] 31-40 years

                         [ ] 41-50 years   [ ] 51-60 years

3. Marital Status   [ ] Single   [ ] Married

4. Highest Qualification (full time)   [ ] Diploma

                         [ ] Graduate

                         [ ] Professional Graduate

                         [ ] Post Graduate

                         [ ] Ph.D.

                         [ ] Others

5. Grade _____

6. Level of Management   [ ] Entry level

                         [ ] Middle level

                         [ ] Senior level

7. Current department _____

8. How long have you been with your present employer? _____ years

9. How long have you been in your profession/service? _____ years

10. Salary range per annum   [ ] 5,00,000-10,00,000

                                   [ ] 10,00,000-15,00,000

                                   [ ] 15,00,000 and above

SECTION A(I)

Instructions

Please read the following statements carefully. Five options ranging from "does not describe my organization" to "describes my organization most of the time" are given against each statement. The items below ask for the nature of your organization. You are needed to participate by putting a tick mark (√) in the appropriate box that describes your organization in the best way. Please do not leave any item unmarked.

Sl. No.	Statement	Responses				
	How does the following describe your organization?	Describes my organization most of the time	Describes my organization a fair amount	Describes my organization a little	Describes my organization almost never	Does not describe my organization
OC 1	The management style is characterized by risk-taking and innovation.					
OC 2	The management style is characterized by collaboration and teamwork.					
OC 3	Organization structure is hierarchial.					
OC 4	In my organization, formal procedures generally govern what people do.					

Sl.No.	Statement	Describes my organization most of the time	Describes my organization a fair amount	Describes my organization a little	Describes my organization almost never	Does not describe my organization
OC 5	My organization is relationship-oriented/like an extended family.					
OC 6	My organization is results-oriented (getting the job done).					
OC 7	My organization is characterized as creative.					
OC 8	Encouraging new things and prospecting for opportunities are valued.					
OC 9	People are very sociable in my organization.					
OC 10	My organization is a structured place.					
OC 11	My organization is a pressurised place.					
OC 12	My organization is an ordered place.					

Sl.No.	Statement	Describes my organization most of the time	Describes my organization a fair amount	Describes my organization a little	Describes my organization almost never	Does not describe my organization
OC 13	My organization is a very stimulating and dynamic place.					
OC 14	My organization is a regulated and controlled place.					
OC15	The management style is characterized by personal freedom.					
OC 16	My organization is nurturing and equitable for employees.					
OC 17	My organization is a safe place.					
OC 18	My organization creates new challenges. Being on cutting edge is emphasized.					
OC 19	Enterprising – my organization emphasizes acquiring new resources.					
OC 20	My organization is established with formal rules and policies.					

Sl.No.	Statement	Describes my organization most of the time	Describes my organization a fair amount	Describes my organization a little	Describes my organization almost never	Does not describe my organization
OC 21	My organization is cautious (careful) about the work of employees.					
OC 22	Mutual trust and loyalty is the glue that holds my organization together.					
OC 23	My organization is a competitive place.					
OC 24	My organization has power-oriented structure.					

SECTION A(II)

Instructions

Please read the following statements carefully. Five options ranging from "always" to "never" are given against eachstatement. The items below ask for the extent to which you actually participate in decision-making in your organization. Please put a tick (√) mark in the appropriate box. Please do not leave any item unmarked.

Sl. No.	Statement	Responses				
		Always	Often	Sometimes	Rarely	Never
PDM 1	Can you discuss work problems with your superior?					
PDM 2	Do you have a significant say in decision-making at work?					
PDM 3	Can you participate in decisions affecting issues related to your work?					
PDM 4	Can you satisfactorily consult with your superior about your work?					
PDM 5	Can you participate in decisions about what is and what is not a part of your work?					
PDM 6	Do you participate in decisions about the nature of your work?					
PDM 7	Do you have a direct influence on your					

	department's decisions?					
PDM 8	Do you have an influence on the distribution of work among you and your colleagues?					

SECTION A(III)

Instructions

Please read the following statements carefully. Five options ranging from "Strongly agree" to "Strongly disagree" are given against each statement. The items below ask your opinion abouttrust with any peerin your organization. Please put a tick (√) mark in the appropriate box of your response. Please do not leave any item unmarked.

Sl.No.	Statement	Responses				
		Strongly agree	Agree	Neitheragree nor disagree	Disagree	Strongly disagree
AT 1	I have a sharing relationship with my colleagues. We freely share our ideas, feelings and hopes.					
AT 2	I can talk freely to my colleagues about difficulties I am having at work and I know that they will listen.					
AT 3	I would feel a sense of loss if one of us was transferred and we could no longer work together.					
AT 4	If I shared my problems with my colleagues, I know they would respond constructively and caringly.					
AT 5	I would have to say that we have made considerable emotional investments in our working relationship.					

Sl. No.	Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
CT 6	My colleagues approach their jobs with professionalism and dedication.					
CT 7	Given my colleagues' track records, I see no reason to doubt their competence and preparation for the job.					
CT 8	I can rely on my colleagues not to make my job more difficult by careless work.					
CT 9	Most people, even those who are not close friends of my colleagues, trust and respect them as colleagues.					
CT 10	Other colleagues of mine who must interact with one of the colleagues, consider him/her to be trustworthy.					
CT 11	If people knew more about this colleague and his/her background, they would be more concerned and monitor his/her performance more closely.					

SECTION B

Instructions

Please read the following statements carefully. Five options ranging from "strongly agree" to "strongly disagree" are given against each statement. The items below ask your opinion about your observations of individuals, groups and the structure, culture and vision of your organization. Please put a tick (√) mark in the appropriate box of your response. Please do not leave any item unmarked.

Sl.No.	Statement	Responses				
		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
OL 1	We have a strategy that positions us well for the future.					
OL 2	My organizational structure supports our strategic direction.					
OL 3	My organizational structure allows us to work effectively.					
OL 4	Our operational procedures allow us to work efficiently.					
OL 5	My organization's culture could be characterized as innovative.					
OL 6	We have a realistic yet challenging vision for the organization.					
OL 7	We have the necessary systems to implement our strategy.					
OL 8	Our organizational systems contain important information.					

Sl.No.	Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
OL 9	We have company files and databases that are up-to-date.					
OL 10	We have an organizational culture characterized by a high degree of trust.					

SECTION C

Instructions

Please read the following statements carefully. Five options ranging from "Strongly agree" to "Strongly disagree" are given against each statement. The items below ask your opinion about your commitment. Please put a tick (√) mark in the appropriate box of your response. Please do not leave any item unmarked.

Sl.No.	Statement	Responses				
		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
CC 1	I am not afraid of what might happen if I quit my job without having another one lined up.					
CC 2	It would be very hard for me to leave my organization right now, even if I wanted to.					
CC 3	Too much in my life would be disrupted if I decided I wanted to leave my organization now.					
CC 4	It would not be too costly for me to leave my organization now.					
CC 5	Right now, staying with my organization is a matter of necessity as much as desire.					
CC 6	I feel I have too few options to consider leaving this organization.					
CC 7	One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.					
CC 8	One of the major reasons I continue to work for this organization is that leaving would require considerable sacrifice – another organization may not match the overall benefits I have here.					

Sl.No.	Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
NC 1	I think that people these days move from company to company too often.					
NC 2	I do not believe that a person must always be loyal to his/her organization.					
NC 3	Jumping from organization to organization does not seem unethical to me.					
NC 4	One of the major reasons I continue to work for this organization is that I believe loyalty is important and therefore, feel a sense of moral obligation to remain.					
NC 5	If I got another offer for a better job elsewhere, I would not feel it is right to leave my organization.					
NC 6	I was taught to believe in the value of remaining loyal to one organization.					
NC 7	Things were better in the days when people stayed with one organization for most of their career.					
NC 8	I do not think that wanting to be "a company man" or "company woman" is sensible anymore.					
JI 1	The most important things that happen to me involve my present job.					

Sl.No.	Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
JI 2	To me, my job is only a small part of who I am.					
JI 3	I am very much involved personally in my job.					
JI 4	I live, eat and breathe my job.					
JI 5	Most of my interests are centred around my job.					
JI 6	I have very strong ties with my present job, which would be very difficult to break.					
JI 7	Usually, I feel detached from my job.					
JI 8	Most of my personal life goals are job oriented.					
JI 9	I consider my job to be very central to my existence.					
JI 10	I like to be absorbed in my job most of the time.					
GC 1	I am prepared to do additional work, when this benefits my work team.					
GC 2	I feel at home among my colleagues at work.					
GC 3	I try to invest effort into a good atmosphere in my team.					
GC 4	In my work, I let myself be guided by the goals of my work team.					
GC 5	When there is social activity with my team, I usually help to organize it.					
GC 6	This team lies close to my heart.					
GC 7	I find it important that my team is successful.					

BIO-DATA

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Educational Qualifications

M.B.A.   Indian Institute of Information Technology (IIIT) Allahabad
Division   First (CGPA – 8.63)
Year   2009-2011

B.Tech   SRM University, Chennai
Field   Electronics & Telecommunication
Division   First (CGPA – 8.89) with distinction
Year   2005-2009

XIIth Board   Delhi Public School (DPS), Damanjodi
Subjects   Maths, Physics, Chemistry, Biology, English
Division   First (score - 81%)
Year   2005

X[th] Board   Delhi Public School (DPS), Damanjodi
Subjects   Maths, English, Hindi, Science, Social Studies
Division   First (score – 84.5%)
Year   2003

Papers Presented in Conferences in Relation to Thesis Work

Saha, S. and Kumar, S.P. (2014). "Impact of Participation in Decision Making on Job Satisfaction, Group Learning and Group Commitment." *International Conference on Business Paradigms in Emerging Markets (ICBPEM)*, NIT Rourkela, India, December 12-13, 2014.

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