FACULTY IN INDIAN ACADEMIC ENVIRONMENT: AN EVALUATION OF JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT

By

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CERTIFICATE

This is to certify that the thesis entitled, "Faculty in Indian Academic Environment: An Evaluation of Job Satisfaction and Organizational Commitment" which is being submitted by Neha Aggarwal for the award of degree of Doctor of Philosophy in Management by the Jaypee University of Information Technology at Waknaghat, is a record of the candidate's own work, carried out by her under my supervision. This work has not been submitted partially or wholly to any other University or Institute for the award of this or any other degree or diploma.

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Place: **Neha Aggarwal**

Date:

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LIST OF ABBREVIATIONS

AC	Affective Commitment
ANOVA	Analysis of Variance
JS	Job Satisfaction
Pro.	Promotion
RW	Recognition at Workplace
SA	Support from Administration
Sal.	Salary
SPSS	Statistical Package for Social Sciences
SS	Support from Supervisor
WEKA	Waikato Environment for Knowledge Analysis
WLB	Work Life Balance
WS	Work Satisfaction

CHAPTER 1
INTRODUCTION

1.1 BACKGROUND

Evans (1997) defined job satisfaction of an academic faculty as a "state of mind determined by the extent to which the individual perceives his/her job related needs being met". Since independence, India has shown an exponential growth in terms of the number of Universities. With the growing number of universities, the requirement of faculty has also grown. Figure 1.1 and 1.2 shows the growth of Higher Education in India. As per the University Grants Commission (UGC) reports, the growth of higher education in India is drastic. The enrollments show a tremendous growth but with respect to this, the growth in number of teaching staff is extremely poor. One of the oldest surveys in context to Indian academics conducted by Altbach (1977) studied the working conditions, attitudes and organizational environment of college faculty in India. Paucity of faculty in higher education, especially in technical education is the biggest challenge, India is facing. Recruitment in itself is very difficult because the number of applications is very high, but finding the suitable faculty is difficult. Moreover, recruitment costs for replacing the turnover is very huge, in terms of time, resources and productivity. Therefore, recruitment of new faculty is as intricate as retaining the existing faculty.

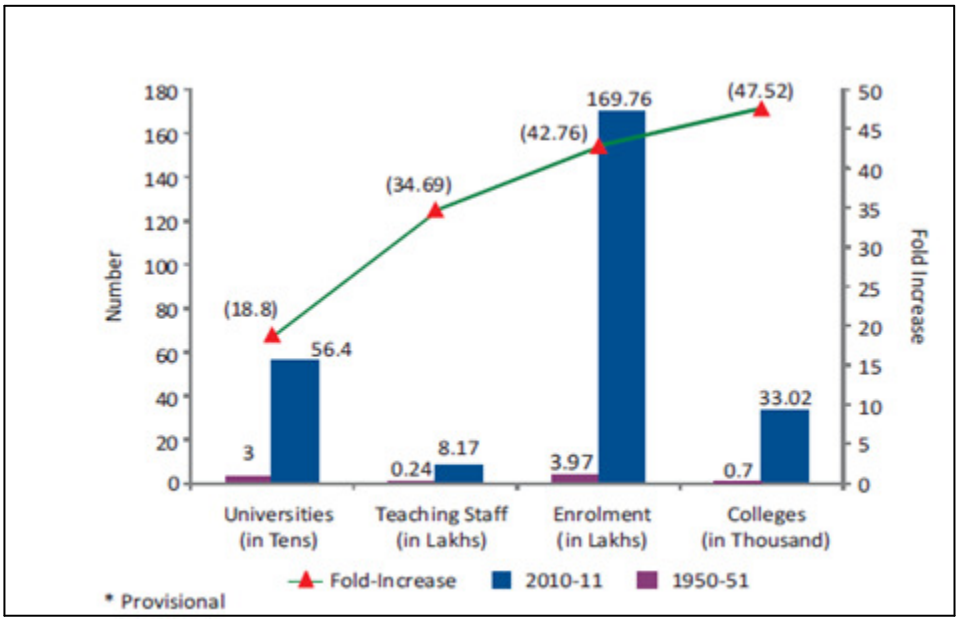

Figure 1.1: Growth of Higher Education (*1950-51-2010-11)
(Source: UGC Statistics)

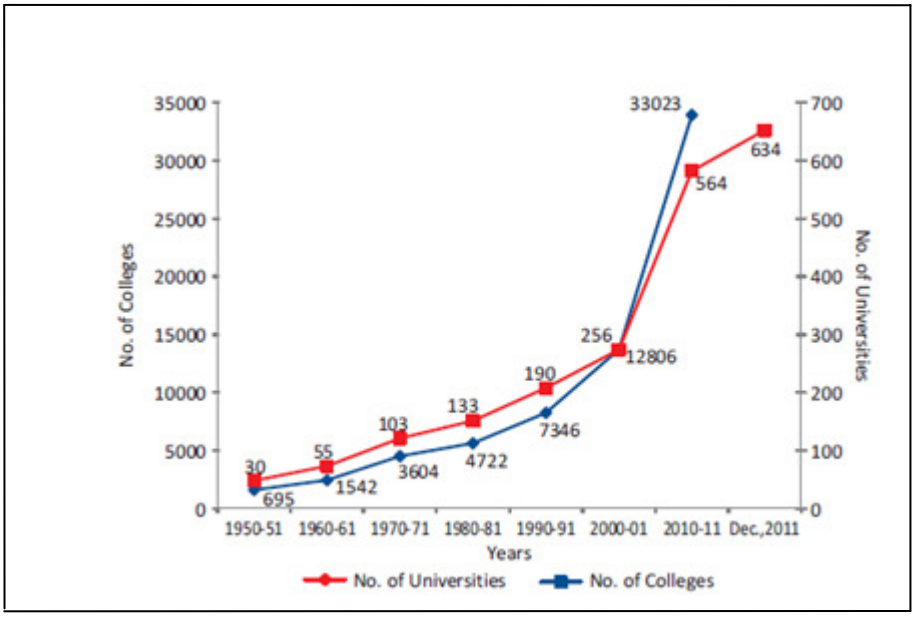

Figure 1.2: Growth of Higher Education Institution
(Source: MHRD/UGC)

Job satisfaction contributes majorly to such a problem. The faculty is recruited on need basis and on value basis. Faculty recruited on need basis may sometimes not be well qualified for the position, but the ominous need compels the institutions to compromise on the quality. This leads

to deterioration in performance and dissatisfaction amongst the faculty. The faculties recruited on value base have more likelihood to leave if dissatisfied and seek better opportunities at other places. Talented faculty adds value to the university and thereby retaining them is a challenge. The question now arises is that what makes the retention of existing faculty so difficult? Is it salary or job satisfaction or lack of motivation?

The study aims at evaluating predictors of job satisfaction and affective organizational commitment among faculty in different academic environments. Job satisfaction and affective organizational commitment, being investigated by various disciplines such as psychology, sociology, economics and management sciences have become important areas of study in organizational literature. This is mainly because many experts believe that job satisfaction trends and commitment can affect faculty retention and influence work productivity and faculty turnover. The studies regarding job satisfaction and organizational commitment continue to emerge, and the results are often valued for both humanistic and financial benefits. Additionally, job satisfaction is considered as a strong predictor of overall individual well-being as well as an indicator of employee's intentions and decisions to leave a job.

Literature suggests that low job satisfaction and commitment among faculty can be the reason for faculty turnover and retention. Presently, faculty shortage is being witnessed in higher education throughout the country. The overall aim during the study is to understand the impact of demographic variables and predictors that have an impact on job satisfaction and commitment of faculty. Thus, the present study covers two major constructs in understanding the aforesaid problems - job satisfaction and affective organizational commitment. The predictors of job satisfaction considered for the present study are: salary, promotion, work life balance, support from supervisor, support from administration, recognition at workplace and work satisfaction;

Where *salary* measures the satisfaction with the current salary and benefits, *promotion* measures the satisfaction with the current opportunities for growth, *work life balance* measures the satisfaction with the ability to balance work with personal commitments, *support from supervisor* measures the satisfaction with the Head of Department/Supervisor and the support provided by him/her at work, *support from administration* measures the satisfaction with the role of administration in providing autonomy and support to faculty, *recognition at workplace* measures the satisfaction with the appreciation for work and *work satisfaction* measures the satisfaction with work done and opportunities provided at the work place.

1.2 RATIONALE OF THE STUDY

1. Job satisfaction is considered as a strong predictor of overall individual well-being. Organizational Commitment and Job Satisfaction are indicators of employee's intentions and decisions to leave a job.
2. Even though there have been several studies on job satisfaction and organizational commitment in academics, majority of these studies has been conducted by researchers in North America and European nations. Studies on faculty in higher education in Asian context are few and in context to India, the studies are rare.
3. Faculty crisis in higher education has been witnessed throughout the country, making recruitment and retention of faculty imperative.

1.3 OBJECTIVES OF THE STUDY

The main objective of the study is to examine the job satisfaction and affective commitment of faculty in Indian Universities. The objectives of the study are:

1. To study the difference in impact of predictors on job satisfaction and affective commitment in private and government universities among faculty members teaching engineering and management courses.

2. To study the difference in impact of predictors of job satisfaction and affective commitment in private and government universities among male and female faculty members.
3. To examine the impact of demographic factors on predictors of job satisfaction and affective commitment and the difference of their impact between private and government universities' faculty members.
4. To examine if there is a significant relationship between job satisfaction and affective commitment.
5. To identify the predictors in the study, that lead to higher job satisfaction among faculty members in private and government universities.

1.4 CONTRIBUTION OF THE STUDY

Firstly, the study provides evidence that popular constructs from Western/North American management literature should not be automatically dismissed as being culture specific. The study has revealed that most of the western parameters used in this study have similar meanings in the Indian context as well. The findings of this study have shown that work-related attitudes and practices such as job satisfaction and organizational commitment are important to faculty irrespective of their cultural contexts.

Secondly, the current study further adds to the body of knowledge by examining the influences of numerous demographic characteristics on two central occupational attitudes among Indian university faculties, namely organizational commitment and job satisfaction which have rarely been examined in prior research in a single study. The study predicted that support from supervisor, support from administrator, salary and promotion were the most determining factors for job satisfaction. By increasing faculty's satisfaction on these parameters, higher commitment can be achieved. University authorities can consider these predictions for their decision making in increasing the level of satisfaction of their faculty in government and private universities.

1.5 ORGANIZATION OF THE THESIS

Research presented in this thesis studies the role of predictors on job satisfaction and affective commitment. The results obtained from this study are encouraging. The study has been organized in 5 chapters. A brief outline of each chapter is as follows:

Chapter 1 is an introduction of the thesis. It establishes the opening discussion of environment in universities and gives an introduction to job satisfaction and affective organizational commitment. It underlines the need and objectives of the study. The chapter throws light on various research objectives and hypotheses that have been addressed in this thesis. The chapter also describes the significance and contribution of the study.

Chapter 2 is enriched with an exhaustive and comprehensive literature review. The chapter gives historical evolution and background of job satisfaction and organizational commitment. The review of literature allows understanding the gaps in previous researches and opportunities and motivations for adding into the existing literature.

Chapter 3 describes the methodology used to carry out the current study. The chapter gives details of the population and the sampling used for the study, and also explains the sample and different demographics used. The research instruments used in the study are explained in details. Procedures used for data collection and data analyses are also discussed in this chapter. Reliability and validity of the research tools is presented in the chapter.

Chapter 4 gives in detail the findings and analyses of the study. It starts with demographic analysis of the participants. Then, it presents the means and standard deviations of the various variables of the research instrument used. The analyses are carried out using Independent samples t-Test, ANOVA, Pearson product-moment correlation, Regression and Association Rules

Hypothesis 1 and 2 are tested using t-Test. Hypothesis 3 is tested using One-Way ANOVA and Two-Way ANOVA. Hypothesis 4 is tested using Pearson product-moment correlation. Predictions are made using Regression and Association Rules.

Chapter 5 is devoted to conclusions and implications of the study. This chapter also discusses the limitations and scope for future research in the area of job satisfaction and organizational commitment.

CHAPTER - 2
REVIEW OF LITERATURE

2.1 INTRODUCTION

This chapter reviews both empirical and theoretical literature on the key constructs of the study namely: job satisfaction and affective commitment. The chapter begins by highlighting the development of job satisfaction and organizational commitment; the definitions and conceptual approaches to understanding the constructs. Finally, the chapter presents a review of job satisfaction and organizational commitment studies in higher education in developing and developed economies.

2.2 CONCEPT OF JOB SATISFACTION

Job satisfaction has been one of the most heavily researched employee attitudes over the last 50 years (Rayton, 2006). There are several definitions of job satisfaction, but Spector (1997) refined the definition of job satisfaction to "an attitudinal variable that measures how a person feels about his or her job, including different facets of the job". It is an affective response to some specific aspects of the job and plays a vital role in enhancing employee commitment to an organization. Studies reveal that employee absenteeism, turnover and other behaviors are related to a person's satisfaction with his or her job and the organization. Studies by various researchers have shown that job satisfaction is a multidimensional construct consisting of intrinsic job satisfaction and extrinsic job satisfaction (Maidani, 1991; Volkwein & Zhou, 2003). Intrinsic aspects of the job include motivators' or 'job content' factors such as feelings of accomplishment, recognition, autonomy, achievement, advancement, among other factors. Extrinsic facets of the job, often referred to as 'hygiene' factors are job perspective factors which

include pay, job security, physical working conditions, company policies and administrative aspect, supervision, hours of work among others. Most studies have found that job satisfaction is also influenced by an arrangement of personal and job characteristics such as age, gender, marital status, tenure, organization type, nature of work, among others (Volkwein & Parmley, 2000; Lambert, 2003; Volkwein & Zhou, 2003; Lambert, 2004; Lambert, Hogan & Griffin, 2007).

2.3 CONCEPT OF ORGANIZATIONAL COMMITMENT

Organizational commitment as a concept has increasingly achieved prominence over the past three decades. O'Reilly and Chatman (1986) defined organizational commitment as the psychological attachment felt by the person for the organization; it reflects the degree to which the individual internalizes or adopts characteristics or perspectives of the organization. They also noted that different terminologies have been used to describe the same basic phenomenon, such as identification with the organization's goals and values; involvement or loyalty to the organization and affective or psychological attachment. According to Meyer and Allen (1996), affective commitment is an employee's emotional attachment, identification with and involvement in the organization. It refers to feelings of belonging and sense of attachment to the organization and it has been related to personal characteristics and organizational structures; for example; pay, supervision, role clarity and skill variety. Some studies have conceptualized it as one-dimensional (Porter, Steers, Mowday & Boulian, 1974; Wiener, 1982) while others as multidimensional (Allen & Meyer, 1990; O'Reilly & Chatman, 1986). Meyer and Allen made the biggest contribution to the organizational commitment literature, with over fifteen studies published since 1984. Common to all conceptualizations, they argued that commitment binds an individual to an organization and thereby reduces the likelihood of turnover.

Meyer and Allen's three component model of commitment was chosen for this study, because it has undergone the most extensive empirical evaluation to date (Allen & Meyer, 1996). Meyer and Allen (1990) developed their three component model from an identification of common themes in the conceptualization of commitment from existing literature.

2.4 ATTITUDINAL COMMITMENT

The attitudinal commitment approach perceives commitment as an individual's psychological attachment to the organization. Consistent with the philosophy of human resource management, attitudinal commitment suggests that employees' values and goals are congruent with those of the organization (Mowday, Porter & Steers, 1982; Armstrong, 2003). This approach, now commonly referred to as affective commitment, has dominated most of organizational commitment research for more than three decades (Buchanan, 1974; Porter *et al*., 1974; Mowday *et al*., 1982). Brown (1996) refers to it as a "set of strong, positive attitudes towards the organization manifested by dedication to goals and shared sense of values" while Porter *et al*. (1974) defines it as the relative strength of an individual's identification with and involvement in a particular organization. Such commitment can generally be characterized by at least three factors: (a) a strong belief in, and acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; (c) a definite desire to maintain organizational membership. Meyer and Allen (1991) defined it as an employee's emotional attachment to, identification with, and involvement in the organization. These definitions view organizational commitment as involving some form of psychological bond between the employees and the organization. The resulting outcomes are increased work performance, reduced absenteeism and reduced turnover (Scholl, 1981). The exchange theory has also been used to explain attitudinal commitment. According to the exchange perspective, employees exchange their identification, loyalty and attachment to the organization in return for incentives from the organization (Angle & Perry, 1981; Steers, 1977; Mowday *et al*., 1982). This implies that an individual's decision to become and remain a member of an organization is determined by their perception of fairness of the balance of organizational stimulus and employee contribution. This approach therefore presumes that the employee develops attitudinal commitment when they perceive that their expectations are being met by the organization. Another dimension in explaining attitudinal commitment has

been proposed by Wiener (1982). He argues that an employee's commitment could be as a result of internalized normative pressures such as personal moral standards, and not rewards or punishments. Employees with strong normative commitment may feel a deep seated obligation "to act in a way which meets organizational goals and interests" .Employees with strong normative commitment remain in the organization because they feel they must to do so (Allen & Meyer, 1996). According to this approach, an employee willingly maintains membership purely for the sake of the organization without asking for anything in return. These feelings of obligation to remain with an organization result primarily from the internalization of normative pressures exerted on an individual prior to entry into an organization (ancestral or cultural socialization) or following entry into the organization and not through rewards or inducements (Wiener, 1982; Meyer & Allen, 1997; Chen & Francesco, 2003). Feelings of indebtedness may also arise from an organization's providing certain benefits such as tuition reimbursement or training. This feeling of obligation may continue until the employee feels that he or she has "paid back" the debt (Meyer & Allen, 1991; Scholl, 1981; Chen & Francesco, 2003). Wiener's (1982) proposal which stresses identification and loyalty to the organization, has added a new dimension to the understanding of attitudinal commitment. Whereas in affective/attitudinal commitment an individual is attached to the organization's goals and values, normative commitment arises from the congruency of the individual's and the organization's goals and values, which aim to make the individual to be obligated to the organization (Suliman & Iles, 2000). Studies that have used Meyer and Allen's (1991) affective and normative commitment scales have revealed that the two approaches have an inherent psychological overlap and that it may not be possible to feel a strong obligation to an organization without also developing positive emotional feelings for it (Allen & Meyer, 1996; Meyer, Stanley, Herscovitch & Topolnysky, 2002; Jaros, 2007).

2.5 ANTECEDENTS OF AFFECTIVE COMMITMENT

Mottaz (1988) suggests that intrinsic rather than extrinsic rewards are powerful determinants of organizational commitment. Meyer and Allen (1997) verify this. They found employees with

strong affective commitment feel emotionally attached to the organization. It follows that the employee will have greater motivation or desire to contribute meaningfully to the organization than would an employee with weak affective commitment. Meyer and Allen (1997) reported that employees will develop affective commitment to an organization to the extent that it satisfies their needs, meets their expectations and allows them to achieve their goals, thus, affective commitment develops on the basis of psychologically rewarding experiences. An employee who is affectively attached to an organization will have greater motivation or desire to contribute meaningfully to the organization than an employee with weak affective attachment. Such an employee will therefore choose not to be absent from work and will desire to perform their duties well. However, employees whose attachment to the organization is based on continuance commitment will stay with the organization mainly due to the investments they have in the organization. Such employees, therefore, may not contribute effectively to the organization and may eventually feel frustrated, leading to inappropriate work behaviors such as absenteeism. Finally, the feeling of indebtedness or obligation to the organization arising from normative commitment may create some resentment which may affect the employee's performance.

2.5.1 Personal Characteristics

Research has focused on two types of variables: demographic (e.g. gender, age, organizational tenure) and dispositional variables (e.g. personality, values). Relations between demographic variables and affective commitment are neither strong nor consistent (Meyer & Allen, 1997). People's sensitivity of their own competence might play an important role in the development of affective commitment. From the several personal characteristics that Mathieu and Zajac (1990) have examined, perceived competence and affective commitment have the strongest link. Employees who have strong confidence in their abilities and achievements have higher affective commitment. A possible explanation for the observed relation between the two variables is that competent people are able to choose higher-quality organizations, which in turn inspired affective commitment.

2.5.2 Work Experience

According to Meyer and Allen (1997) work experience variables have the strongest and most consistent correlation with affective commitment in most studies. In Mathieu and Zajac's (1990) meta-analytic study, affective commitment has shown a positive correlation with job scope, a composite of three variables, e.g. job challenge, degree of autonomy and variety of skills used. Affective commitment to the organization is stronger among employees whose leaders allow them to participate in decision-making (Rhodes & Steers, 1981) and those who treat them with consideration (DeCotiis & Summer, 1987). The strongest links between affective commitment and behavior will be observed for behavior that is relevant to the community (e.g. supervisor) to which the commitment is directed. On the basis of antecedent research on affective commitment, Meyer and Allen (1997) suggested possible universal appeal for those work environments where employees are supported, treated fairly, made to feel that they make contributions. Such experiences might fulfill a higher order desire to enhance perceptions of self worth.

2.6 JOB CHARACTERISTICS

Work environments are not just tangible, physical structures but are also composed of social and psychological factors (Lambert, 2004). These work environments consist of job characteristics and role stressors, factors which are expected to influence employees' attitudinal states. Various studies have been carried out relating organizational commitment and job satisfaction to different work-related characteristics such as task variety, autonomy, feedback, work overload, co-worker and supervisory support (Hackman & Lawler, 1971; Lambert, 2004). Studies have shown that employees exhibit high levels of commitment and job satisfaction when they perform challenging and complex jobs characterized by factors such as skills variety, autonomy, and feedback among others (Sims, Szilagyi & Keller, 1976; Hackman & Oldham, 1980; Mathieu & Zajac, 1990; Meyer & Allen, 1997). Mottaz (1987) found that unlike demographic characteristics, job characteristics such as job autonomy and skills variety had strong, positive

influence on organizational commitment and work satisfaction. Lambert (2003) found that job autonomy had positive effects on both job satisfaction and organizational commitment among correctional staff members. Autonomy in the academic profession is an important characteristic (Kim, Twombly & Wolf-Wendel, 2008). However, autonomy is increasingly under threat due to the global economic emphasis on efficiency and a stronger focus on income generation, which means that faculty members have less control over their work. Kim *et al*. (2008) utilized survey data from the National Study of Post Secondary Faculty, 2004 compiled by the National Centre for Education Studies, USA. In a study of 4664 faculty members, they found that academics who were more satisfied with their salary ($\beta = .035$, $p < 0.01$), fringe benefits ($\beta = .046$, $p < 0.001$) and teaching support ($\beta = .090$, $p < 0.001$) were more satisfied with their instructional autonomy. Further, academics who believed that teaching was rewarded at their institutions were more satisfied with their instructional autonomy (autonomy with teaching related decisions). Kim *et al*. (2008) concluded that policy makers and universities should guard the creativity and autonomy of their members. Al-Omari, Qablan and Khasawneh (2008) found that autonomy had a positive direct effect on academics intent to stay through job satisfaction ($\beta = 0.069$, $p < 0.05$) and organizational commitment ($\beta = 0.051$, $p < 0.05$). This suggests that a higher level of autonomy was associated with higher levels of job satisfaction and organizational commitment which in turn yielded higher intention to stay. According to Al-Omari *et al*. (2008), autonomy may enhance faculty job satisfaction and organizational commitment because it provides academics with the professional freedom they expect from their jobs and enables them to employ their specialized knowledge in appropriate ways without extensive oversight. Supervisory and co-worker support have been found to be significant predictors of job satisfaction and organizational commitment (Mathieu & Zajac, 1990; Lambert, 2003; Dixon, Cunningham, Sagas, Turner & Kent, 2005). Employees are more likely to view their jobs and employing organizations in a more favorable light if they are provided with positive, support from their supervisors (Lambert, 2004; Lambert *et al*., 2007). Conversely, employees will be dissatisfied with their job and blame the organization for the negative situation if they are provided with poor, harsh and unhelpful supervision. Similarly, Mowday *et al*. (1982) noted that supervisors who allow their employees

greater autonomy over how they perform their work increase the employees feeling of responsibility. Joiner and Bakalis (2006), in a survey study of 72 Australian casual academics, found that job-related characteristics played an important role in their affective commitment. The study found that strong co-worker and supervisor supports both positively contributed to affective commitment. This suggests that a supervisor, usually the academic head of department, who offers support, shares concerns and provides useful job-related information, is likely to have a positive influence on academics' organizational commitment. Likewise, academic co-workers who provide mutual support for one another in terms of providing information and assistance, increase their sense of connection and commitment with the university.

2.7 DEMOGRAPHIC CHARACTERISTICS

Employees' demographic characteristics are commonly used variables in context to constructs i.e. job satisfaction and organizational commitment. There are some studies that have found inconsistent results (Mathieu & Zajac, 1990; Al-Qarioti & Al-Enezi, 2004). Many studies have found that personal variables such as age, tenure, education, gender and marital status played a significant role in enhancing employees job satisfaction (Becker, 1960; Hrebiniak & Alutto, 1972; Stevens, Beyer & Trice, 1978). These variables are discussed below:

a) Age

Most of the studies have consistently found that age was positively correlated to job satisfaction and organizational commitment, and negatively correlated with turnover intentions (Steers, 1977; Angle and Perry, 1981; Bateman and Strassser, 1984; Mowday *et al*., 1982; Cohen, 1993). Karsh, Bookse and Sainfort (2005) in their study of 6584 nursing home employees, found that unlike younger employees, older employees displayed higher continuance commitment and found it difficult to leave due to factors such as financial obligations to family among others. Price and Mueller (1981) found that younger employees were more likely to turnover than older

employees because they had the most routine jobs, participated less in the decision making process, lacked knowledge about their jobs, had fewer friends and received less pay. Sager and Johnson (1989) found that age was unrelated to a salesperson's organizational commitment. In terms of career commitment, older salespersons were likely to have reached the highest level of their careers and therefore become less committed to their careers as compared to younger salespersons. It is therefore expected that that older employees will be more committed to their universities, more satisfied with their jobs and less likely to turnover than younger employees. In a survey study of 263 administrators and sector managers, faculty and staff of a Caribbean university, Brown and Sargeant (2007) found that older workers, aged 46 years and above had higher levels of overall, intrinsic, and extrinsic job satisfaction and organizational commitment than their younger colleagues, aged 26 to 35 years. They suggest that universities should ensure that they provide opportunities for workers to develop their job satisfaction and organizational commitment by encouraging them to be part of the decision-making process of the institution. This approach would make these workers feel valued and respected and could translate into satisfied workers who would be committed to the organization because they were included in the decision making process.

b) Education

Various studies have shown that education is negatively related to organizational commitment and job satisfaction, and positively related to turnover intentions (Bateman & Strasser, 1984; Mathieu & Zajac, 1990; Eskildsen, Kristensen & Westlund, 2004). Mowday *et al*., in (1982), reports that "this inverse relationship may result from the fact that more educated individuals have higher expectations that the organization may be unable to meet" resulting in the loss of commitment and lower satisfaction. Consequently, highly educated individuals were likely to become more committed to their professions than their organizations. Commitment levels and intentions to remain are likely to be lower for highly educated employees who have a greater number of job options (Mathieu & Zajac, 1990).

c) Gender

Some studies on the relationship between gender and organizational commitment have found weak and inconsistent correlations (Angle & Perry, 1981; Bateman & Strasser; 1984; Steers, 1977; Mowday *et al*., 1982). Mathieu and Zajac (1990) found a weak correlation between gender and organizational commitment, with women being more committed to the organization than men. Since women have had to overcome more barriers to attain their positions in the organization, they may place greater value on their organizations and jobs than their male counterparts (Lincoln & Kalleberg, 1990; Mowday *et al*., 1982; Morris, Wood & Yaacob, 2001).

d) Marital Status

Studies have found a positive relationship between marital status and job satisfaction and organizational commitment with married employees being more committed than single employees (Lincoln & Kalleberg,1990). Married employees exhibited higher organizational commitment largely due to greater family obligations which constrain their opportunities to change employers (Mathieu & Zajac, 1990; Taormina, 1999; Cetin, 2006). Researchers also found that marital status was more related to continuance commitment, suggesting that married employees had more financial concerns.

e) Tenure

The organizational commitment-tenure relationship develops after the employee has spent some years in the organization and developed investments or side-bets which would be the deciding factor as to whether or not to continue membership with the organization (Mathieu & Zajac, 1990; Cohen, 1993). Stevens *et al*., (1978) found that job tenure was a positive predictor of organizational commitment while positional tenure was a negative predictor. This is because side

bets build up with length of time in the organization whereas negative perceptions or costs develop as a result of career stagnation. Morris *et al*. (2001) observed that employees who had served the organization for longer periods of time and/or were better educated, were less committed to the organization. Because of the "push and pull" factor, senior Malaysian academics actively sought better employment opportunities, while the least qualified and the least experienced tended to demonstrate higher degrees of organizational commitment. Tenure consists of job and position tenure. Position tenure refers to the number of years spent in the same position while job tenure refers to the number of years spent working in the same profession.

g) University Sector

Studies have shown that public sector workers have lower levels of job satisfaction and organizational commitment than private sector workers (Mulinge, 2000; Obeng & Ugboro, 2003). Bourantas and Papalexandris (1992) found that positive reinforcement was weaker in public organizations as a result of greater role vagueness and specific measures which limited the connection between the manager's effort and organizational effectiveness. They also found that private sector organizations placed greater emphasis on performance-based rewards which reflected positively on the commitment of managers. However, some studies have not found any sector differences in employee work attitudes (Kline & Peters, 1991).

2.8 CONSEQUENCE OF JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT

Studies have shown that the consequences of job satisfaction and organizational commitment include absenteeism, tardiness and turnover (Mowday *et al*., 1982; Reichers, 1985; Lambert & Hogan, 2009). Employees with low commitment levels and who are dissatisfied with their jobs are expected to report high turnover rates, absenteeism and poor job performance. Employee

turnover is costly to organizations, in terms of recruitment and selection costs, training of new employees, loss of the performance and expertise of skilled employees, and difficulty in attracting new employees if the reasons for the departure of former employees are such as to make others reluctant to work for the organization (Tetty, 2006; Lambert & Hogan, 2009). As a result, the organization incurs the indirect costs of turnover which include increased use of inexperienced and/or tired staff, insufficient staffing resulting in decreased quality of services provided, decreased morale and loss of recruiting. On the other hand, employee turnover can also provide positive changes in the organization through the creation of promotion opportunities for existing employees and taking up of new people with new ideas.

Studies have found that job satisfaction and organizational commitment are inversely related to turnover intentions (Igbaria & Guimaraes, 1999; Meyer & Herscovitch, 2001). Employees, who are highly committed to their organizations and identify with the goals of the organization, have little reason to want to leave. Similarly, employees who have rewarding, meaningful and enjoyable jobs are less likely to quit from as compared to employees who dislike their jobs. Mathieu and Zajac (1990) found that attitudinal commitment had a stronger negative correlation with intentions to leave. Researchers have also found that turnover intentions had strong negative correlations with organizational identification, intrinsic job satisfaction and extrinsic job satisfaction. In a study of 139 academics from a Jordanian University, Al-Omari *et al*. (2008) found that job satisfaction ($\beta = .345$, $p < 0.05$) and organizational commitment ($\beta = .621$, $p < 0.05$), had significant positive effects on intent to stay. They suggest that efforts to improve faculty retention should focus on the work-related factors that affect job satisfaction and organizational commitment. In summary, it is expected that employees in Indian Universities who are satisfied with their jobs and committed to their universities are less likely to intend to turnover.

2.9 DIFFERENCES BETWEEN JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT

Although job satisfaction and organizational commitment are similar as attitudinal or affective constructs, several differences have been observed between the two constructs. First, job satisfaction refers to the extent to which individuals "like" or are "happy" with their work, while commitment refers to the extent of "attachment" or "loyalty" to the organization (Mottaz, 1987). Second, organizational commitment is a more global attitude which portrays an employee's attachment and identification with the goals and values of the organization as a whole, while job satisfaction represents an employee's attachment to the job (or certain aspects of one's job) which is part of the organization (Mowday *et al*., 1979, 1982).

Third, development of employees' commitment towards the organization takes more time and effort as compared to the time required to build job satisfaction (Rifai, 2005). Whereas job satisfaction may be affected by day-to-day events in the workplace or tangible aspects of the work environment such as pay, supervision, working hours, promotions among others, commitment attitudes develop more slowly over time as employees evaluate their relationship with the organization and other aspects of working for the organization such as its goals and values (Porter *et al*., 1974). Mowday *et al*. (1982), stated that "although day-to-day events in the work place may affect an employee's level of job satisfaction, such transitory events should not cause an employee to re-evaluate seriously his or her attachment to the overall organization". It is expected that any changes in the organization, for instance, plans for redundancies, unfair promotional procedures or poor pay may in the long run affect the employee's commitment to the organization. Porter *et al*., (1974) concluded from their study that "although we would expect commitment and satisfaction to be related, each construct appears to contribute unique information about the individual's relationship to the organization". Lambert (2004) in their study of 272 correctional facilities employees, found that job characteristics (i.e. job variety, autonomy and supervision) varied in how they affected job satisfaction and organizational

commitment, with these characteristics having stronger effects on job satisfaction than on organizational commitment. According to him, since job satisfaction is concerned with an individual's job while organizational commitment with the bond to an overall organization, it is expected that job characteristics would have larger effects on job satisfaction than they would on organizational commitment. Despite these differences, studies have shown that job satisfaction and organizational commitment are positively correlated. Mathieu and Zajac (1990) found that organizational commitment had a strong positive relationship with overall job satisfaction, satisfaction with promotion, pay and supervision among others. Due to the differences between job satisfaction and organizational commitment, these two constructs will be examined separately as dependent variables.

2.10 JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT IN HIGHER EDUCATION CONTEXT

Higher education institutions across the world are facing several challenges resulting from globalization and the rapid pace at which new knowledge is being created and utilized which require reforms in the management and governance styles of these institutions (Nyaigotti-Chacha, 2004). Consequently, the satisfaction and commitment of higher education faculties under such challenging work environments has become imperative. Although there is increasing interest in faculty satisfaction in higher education, majority of the theoretical and empirical work is concentrated in the affluent western European countries and North America where conditions are better, with limited studies from developing countries (Olsen, Maple & Stage, 1995; Oshagbemi, 1997; Lacy & Sheehan, 1997; Volkwein & Parmley, 2000; Johnsrud & Rosser, 2002).

2.11 JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT IN UNIVERSITIES IN DEVELOPED COUNTRIES

Oshagbemi (2000) investigated the extent to which UK academics were satisfied with their primary task of teaching, research and administration. In a survey study of 554 academics from 23 universities, he found that 80% of the academics were most satisfied with their task of teaching, followed by research (65%) and institutional management (40%). The study found that most UK academics were satisfied with the courses they taught and the freedom they had to choose the content of their courses, while some were dissatisfied with their class sizes and workload. Most of the respondents were dissatisfied with their administrative activities and protested that excessive paperwork demanded of them reduced the time left for research. Lacy and Sheehan (1997) using a sample of 12,599 respondents from eight nations (Australia, Germany, Hong Kong, Israel, Mexico, Sweden, UK and USA) and examined aspects of academics satisfaction with their jobs. Academics across the eight nations reported general satisfaction with their colleagues, job security, opportunity to pursue their own ideas, and their job situation as a whole. However, 44.1% of the respondents were dissatisfied with their promotion prospects compared with 27.6% who indicated satisfaction. Academics from Israel and USA expressed the highest levels of job satisfaction with the courses they taught as compared to academics from Hong Kong, Sweden and Germany. With the exception of Israel and Mexico, there were significant gender differences across the nations, with male academics being more satisfied with most aspects of their jobs (i.e. job security, promotions, opportunity to pursue own ideas and overall job satisfaction) as compared to the females. With regard to overall job satisfaction, most of the academics from Sweden and USA were more satisfied with their jobs than their colleagues in Germany, Mexico, Australia and UK. Further studies by Lacy and Sheehan (1997) of 1,394 Australian academics; found that male academics were more satisfied than females with most aspects of their jobs. Academics in the lowest rank (i.e. tutors) were less satisfied with their jobs as compared to their professonial colleagues. Academics indicated greatest satisfaction with the classes they teach (77%), relationships with colleagues (69%),

opportunity to pursue own ideas (65%) and job security (58%). However, they were most dissatisfied with their promotion prospects (25%) and the way their institutions were managed (18%). They concluded that if academic staff were to be encouraged to express higher levels of job satisfaction and lower levels of dissatisfaction, attention must be paid to the environment in which they work (i.e. faculty-administration relationship, faculty morale and intellectual atmosphere). Johnsrud and Rosser (2002) in a survey study of 1,511 faculties from 10 public universities in America found that the best predictors for academics morale were their engagement in their work (i.e. enthusiasm and satisfaction with their work and intellectual stimulation), their sense of institutional regard and their own personal morale. They concluded from their study that morale was the primary factor in faculty members' intention to leave their positions, institutions and professions. Volkwein and Zhou (2003) in a survey study of 1,178 administrators from 122 American Universities found that intrinsic satisfaction was lower among administrators who worked in a controlled work environment, had job insecurity, and experienced interpersonal conflict. Extrinsic satisfaction was negatively inclined by job insecurity, external regulation, job stress, and inadequate facilities. They suggested that university presidents should respond to the intrinsic needs of their managers by creating opportunities for them to be creative, to exercise their initiative and match their talents to their job responsibilities. Similarly, Smerek and Peterson (2007) in a study of 1,987 non-academic respondents from a public American university examined the relationship between employees' personal characteristics, job characteristics, perceived work environments and job satisfaction. Hagedorn (1996) examined the role of female/male wage differentials in job satisfaction. In a survey study of 5,450 respondents from American Universities, he found that a significant proportion of female faculty members received lower wages than their male colleagues resulting in reduced levels of job satisfaction, increased stress and increased likelihood to leave the academic profession. He concluded that gender-based discriminatory practices in higher education, such as wage differences between men and women were costly as it led to the turnover of qualified female academics. Since the study was exploratory in nature, Hagedorn reported that some contextual factors that may have had significant effect on job satisfaction may

not have been captured. Wolverton, Montez, Guillory and Gmelch (2001) in a survey study of organizational commitment and turnover intentions among 822 Deans from 360 American Institutions, found that deans who were inside hires tended to be more committed and less likely to leave than deans brought from outside their institutions. Deans who had external opportunities exhibited lower organizational commitment and were more intent on leaving unlike deans who were satisfied with their jobs and believed that they worked in good institutions. Wolverton *et al., (2001)* conclude that universities should enhance the professional development and recognition of the institutional worth of their deans if they expect loyalty from them. The above studies show that intrinsic aspects of the job mainly shape the extent to which university academics are satisfied with their jobs and committed to their institutions.

2.12 JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT IN UNIVERSITIES IN DEVELOPING COUNTRIES

Limited studies have been conducted on job satisfaction and organizational commitment among employees in universities from developing or less developed countries. Küskü (2003) from a survey study of 191 academics and 100 administrative employees from a state university in Turkey found that academic employees had higher professional satisfaction and were satisfied with competition among colleagues than administrative employees. On the other hand, administrative employees were more satisfied with the relationship with their colleagues, their work environment and their salary as compared to academic employees. Poor compensation of academic employees is common in developing countries where financial and economic resources are limited thus challenging the ability of state universities to attract and retain qualified staff. Chughtai and Zafar (2006) in a survey study of 125 teachers from Pakistani universities, found that trust in management, satisfaction with actual work undertaken, job involvement and satisfaction with training opportunities were the strongest positive predictors of organizational commitment. According to the researchers, employees from third-world countries who struggle to make ends meet may be more interested in personal outcomes such as high pay rise than the

fairness of the procedures. Ssesanga (2003,2005) in a survey study, explored job satisfaction and dissatisfaction from a sample of 182 Ugandan academics. Consistent with studies from western contexts (Lacy & Sheehan, 1997; Oshagbemi, 1997) the study found that Ugandan academics derived satisfaction from interests shown by students in the courses they taught, autonomy of content taught, relationship with and respect by students, co-worker and supervisory support, job autonomy and freedom to research. On the hand, sources of dissatisfaction resulted from inadequate pay, lack of research funds, poor library facilities, undervaluing of teaching excellence as a promotion requirement and the relationship with their universities management. Similarly, Onen and Maicibi (2004) in a study of 267 non-academic staff respondents from a Ugandan university found that over 70% of the respondents were dissatisfied with their basic salary and other allowances, resulting in low motivation among the staff. The study also found that employees were dissatisfied with their promotional and training opportunities. According to the researchers, most of the faculties are still grappling to meet their daily basic needs which are not adequately met by the low basic salaries and allowances, and therefore have no additional funds for training. The above findings from developing countries indicate that universities are facing serious challenges in motivating and enhancing the commitment of their employees. Various factors such as inadequate and non-competitive salaries, poor physical working conditions, inadequate teaching and research resources, poor institutional governance among other factors are some the challenges that these universities face in terms of motivating their staff and containing high turnover rates. This is contrary to academics and administrative employees from developed countries who are generally satisfied with their jobs.

2.13 SUMMARY

JOB SATISFACTION	
Oshagbemi, T. (1997)	It was studied that teaching and research-related activities contribute significantly to both job satisfaction and dissatisfaction of university teachers. Also, several miscellaneous dimensions of the jobs of the workers, such as job security contribute to satisfaction and dissatisfaction respectively.
Oshagbemi, T. (2003)	Based on the sample from UK universities, the researchers found that academic rank is positively and very strongly correlated with the overall job satisfaction; length of service in higher education is negatively related; gender, age and length of service in present universities are not significantly associated directly with the overall job satisfaction.
Santhapparaj, A. S. & Alam, S. S. (2005)	A study conducted on 173 faculties in three private universities in Malaysia indicated that pay, promotion, working conditions and support for research have positive and significant effect on job satisfaction; female faculty was more satisfied than male faculty.
Toker, B. (2011)	Minnesota Satisfaction Questionnaire (MSQ) based study conducted in 648 academicians working in the Universities of Turkey indicated that job satisfaction levels of academicians were moderately high, social status ranking the highest and compensation as lowest of the examined items; Professors reported higher job satisfaction compared to instructors and research assistants; age, length of service in present university and in higher education as a whole were significantly related to job satisfaction; marital status and gender were not significantly related to job satisfaction.
AFFECTIVE COMMITMENT	
Meyer,J.P., Stanley,D.J, Herscovitch,L. & Topolnytsky,L.	Using Meyer and Allen's Three-Component Model, it was found that affective commitment related negatively to turnover, and had the strongest and most favorable correlations with stress and work–family conflict.

(2002)	
Chughtai,A.A. & Zafar, S.(2006)	Data gathered from 33 universities in the three major cities of Pakistan indicate that the personal characteristics, facets of job satisfaction and two dimensions of organizational justice as a group were significantly related to organizational commitment of teachers. Individually, distributive justice and trust in management were found to be the strongest correlates of commitment. Commitment was found to be negatively related to turnover intentions.
DEMOGRAPHIC FACTORS	
Tu, L., Plaisent, M., Bernard, P.& Maguiraga, L. (2005)	The data on job satisfaction obtained from 194 Taiwanese faculties and 211 Chinese faculties at college levels in one city indicated that there is no statistically significant differences for full-time Taiwanese and Chinese faculty in the overall job satisfaction.
Sabharwal, M. & Corley, E. A. (2009)	The results show that, with a few exceptions, male faculty members in all disciplines have generally higher levels of job satisfaction than female faculty members. Satisfaction varies not only by gender, but also by discipline.
Eyupoglua, S. Z. & Sanerb, T. (2009).	Study conducted on 142 academicians in Northern Cyprus indicated that job satisfaction does not progressively increase with academic rank as might be expected. Out of the 20 aspects of the job examined, only 4 aspects, namely advancement, compensation, co-workers, and variety were statistically significant with academic rank.
Nawab, S. & Bhatti, K. K. (2011)	Results confirmed a significant correlation between Employee Compensation, Affective Commitment and Job Satisfaction.

Table 2.1: Summary Table for Review of Literature

2.14 CONCEPTUAL FRAMEWORK

We observe seven predictors of job satisfaction and demographic variables and their consequent impact on job satisfaction. Along with that, the relationship between job satisfaction and affective commitment will be studied and their hypothesized consequences.

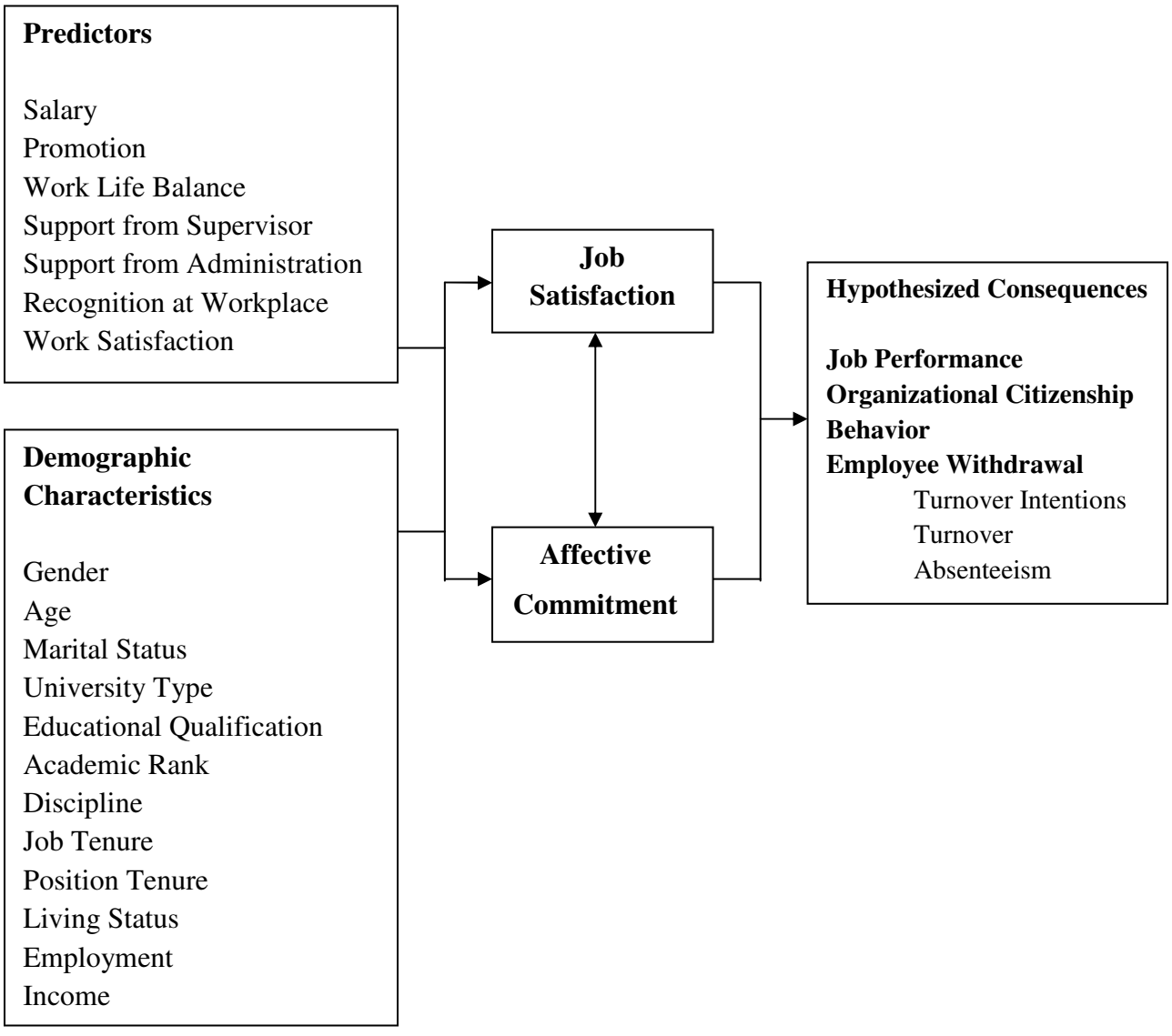

Figure 2.1: Conceptual Framework

2.15 RESEARCH HYPOTHESES

Drawing on the existing conceptual and empirical framework, the present study attempts an empirical examination of job satisfaction and affective organizational commitment. The hypotheses framed for the study are:

H1: There is a significant difference in impact of predictors of job satisfaction and affective commitment on faculty members in private and government universities.
H2: There is a significant difference in impact of predictors of job satisfaction and affective commitment on male and female faculty members in private and government universities.
H3: Demographic factors have a significantly different impact on predictors of job satisfaction and affective commitment in private and government universities' faculty members.
H4: There is a significant relationship between job satisfaction and affective commitment.

2.16 CONCLUSION

This chapter has reviewed the different conceptual approaches in understanding job satisfaction and organizational commitment. The literature has shown that job satisfaction is a bi-dimensional construct consisting of intrinsic and extrinsic job satisfaction. Turnover intention, which is an outcome of organizational commitment and job satisfaction, has been
found to be inversely related to organizational commitment and job satisfaction. Studies have found that job satisfaction and organizational commitment were considerably high among employees in universities from developed countries. However, despite having better working environments than academics in developing countries, some academics have been shown to be dissatisfied with certain aspects of their jobs such as promotions and the way their universities are managed.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

The purpose of this chapter is to provide a description of the research design and the methodological procedures for the study. The chapter includes sampling, tools for data collection and the statistical techniques used to analyze the data.

3.2 RESEARCH DESIGN

A 2x2x2 factorial design was used as the research design, presented in Figure 3.1. Faculties in universities were categorized into engineering and management disciplines. They were further classified into private and government universities. Also the role of gender is important and therefore has been classified.

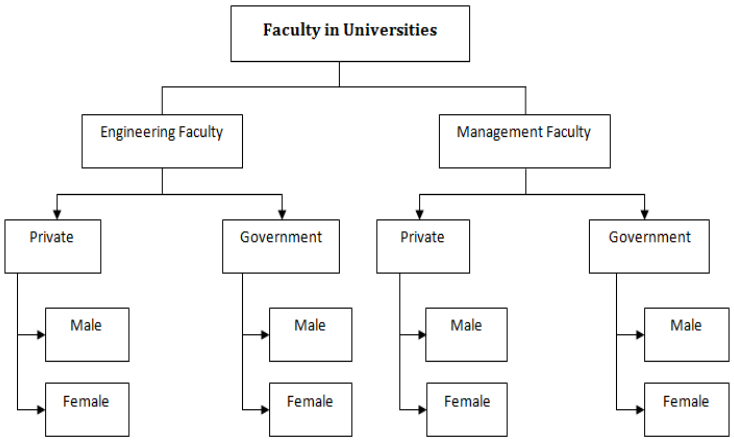

Figure 3.1: Research Design

3.3 SAMPLING

The population for the study is faculty teaching management and engineering courses in universities in North India. The sample consisted of faculty teaching in private and government universities. A list of universities was prepared from the UGC website. The names of participants and universities have been kept confidential in the study. Questionnaires were sent through E-mails and most of the surveys were administered personally. Convenience sampling has been employed in this study. Participants in the study were not limited by gender, age, tenure or academic rank. The sample size was 376.

3.4 SAMPLE

As derived from the literature, the universities were classified using two criteria, viz; disciplines: engineering and management, and university type: private and government. Respondents included faculty, males and females, to test predictors of job satisfaction and affective commitment. In the present study, data was collected from the universities located in North of India. The states included Himachal Pradesh, Uttarakhand, Punjab, Haryana, Rajasthan and Union Territory of Chandigarh. Some participants did not fill the questionnaires. Some questionnaires were not usable because of missing values. Out of nearly 800 questionnaires, only 453 were returned. After mapping, 376 questionnaires were deemed suitable for data analysis.

3.5 DEVELOPMENT OF RESEARCH TOOLS

One of the major tasks associated with this study was the development of a questionnaire to be administered. Due to availability of standardized tools and enough research in the area, some items for job satisfaction were adapted from various related articles and literature. For

measuring affective commitment, the items were adapted from Allen and Meyer's Three Component Model of Employee Commitment (1990). The questionnaire developed for the study consisted of three parts. *Part A* consisted of demographic factors including gender, age, marital status, university type, educational qualification, academic rank, discipline (engineering and management), job tenure (number of years in teaching), position tenure (number of years in the current position), living status, employment and income. *Part B* included seven predictors i.e. salary, promotion, work life balance, support from supervisor, support from administration, recognition at workplace and work satisfaction, to measure job satisfaction. *Part C* was developed to measure affective commitment. The reverse coded items in the questionnaire were recoded :1 as 5, 2 as 4, 3 as 3, 4 as 2 and 5 as 1.The reverse coded items have been indicated in the questionnaire in Appendix A.

3.6 SCORING OF THE QUESTIONNAIRES AND SCALE INTERPRETATION

The survey questionnaire was rated on a five point scale where strongly disagree was coded as '1', disagree was coded as '2', neutral was coded as '3', agree was coded as '4', and strongly agree was coded as '5'. The scale interpretation would be as in figure 3.2.

Score Value	Below 2	**2-3**	Above 3
Interpretation	Low	**Moderate**	High

Figure 3.2: Scale Interpretation

3.7 PILOT STUDY

A pilot study was performed on a sample of 80 respondents. A pilot, or feasibility study, is a small experiment designed to test logistics and gather information prior to a larger study, in order to improve the latter's quality and efficiency. A pilot study can reveal deficiencies in the design of a proposed experiment or procedure and these can then be addressed before time and resources are expended on large scale studies. The aim of pre-testing was (i) to check the reliability and validity of the questionnaire (ii) to ascertain the time required to complete the questionnaire (iii) to check the adequacy of response categories formulated and (iv) to check the overall appropriateness of the questions. The questionnaire was discussed with respondents as well. The questionnaire had high content validity. The content validity (which concerns the relevance of the questions asked to the quality being measured) of the questionnaire was ensured through feedback from senior faculty at different stages during its development. The Cronbach's Alpha Coefficient for *Part B* (i.e. job satisfaction) was 0.892 and for *Part C* (i.e. affective commitment) was 0.581. After the pilot study, four questions were deleted, three from Part B and one from Part C.

3.8 PROCEDURE FOR DATA ANALYSIS

Missing data is inevitable in survey research. All subjects with missing data were eliminated before data analysis are preformed. t-Test, ANOVA, Pearson's correlation, Association Rules and Regression technique was used to analyze data in the current study. These tests were conducted using SPSS and WEKA.

The internal consistency (Cronbach's alpha) of each subscale was estimated using SPSS 18.0. Alpha coefficients greater than 0.70 are assumed to be adequate for internal consistency in the field of social science (Hair, Anderson, Tatham & Black, 1998; De Vaus, 2002). After the deletion of four items from the questionnaire, leaving a total of thirty six items in Part B and Part

C, the Cronbach's Alpha Coefficient for Part B was 0.892 and for Part C was 0.732. The tests used for testing hypothesis are:

3.8.1 T-Test

An independent sample T-test was used to analyze objective 1 and 2. T test is used to determine whether there is a significant difference between two sets of scores. The results have been split into private and government universities. The first test was run for faculty teaching engineering and management courses and the second test was run for male and female faculty.

3.8.2 ANOVA (One-Way/ Two-Way)

One-way ANOVA is used for comparing the means of more than two groups or levels of an independent variable. Impact of individual demographic variables has been measured on predictors of job satisfaction. Two-way ANOVA is used for comparing the means of more than two groups or levels of two independent variables. This test allows us to examine the interaction effect of two independent variables on predictors of job satisfaction. These tests have been used to measure objective 3.

3.8 3 Correlation

Correlation looks at the relationship between two variables in a linear fashion which has been used to analyze objective 4. A Pearson-product-moment correlation describes the relationship between two continuous variables. This measures the relationship between job satisfaction and affective commitment.

3.8.4 Association Rules

Association rules are useful in data mining for analyzing and predicting behaviors. Association

rules are formed by analyzing data for frequent if/then patterns and using the criteria support and confidence to identify the most significant relationships. Support is an indication of how frequently the items emerge in the data set. Apriori algorithm has been used in order to predict job satisfaction. The minimum confidence level kept for analysis is 60%. The scoring has been converted from numeric's to alphabets i.e. 1 as "a", 2 as "b", 3 as "c", 4 as "d" and 5 as "f". This algorithm is used to analyze objective 5.

3.8.5 Multiple Regression

Multiple Regression is used when independent variables are correlated with one another and with the dependent variable. The result of regression is an equation that represents the best prediction of a dependent variable from several independent variables, which is used to analyze objective 5.

3.9 CONCLUSION

In this chapter, research design has been presented. Research design, sampling, development of research tools, and sample have been discussed in detail. This chapter also explained the tools which are used to analyze the data. t-Test, ANOVA, Correlations, Association Rules and Regression techniques are used to test the hypotheses of the study.

In next chapter, details of the findings and analyses of the study are presented. It starts with demographic analysis of the participants. Then, it presents the mean and standard deviations of the various scales of the research instruments used. Each hypothesis was tested using the above mentioned tests.

CHAPTER 4
RESULTS

4.1 INTRODUCTION

This chapter presents the results of preliminary data analysis as follows; firstly, it describes the demographic characteristics of the sampled respondents from universities (private and government) in North India. Such a narrative is imperative in providing a clear understanding of the respondents included in the study. Secondly, it discusses the extent to which the independent variables differed statistically among the respondents based on university sector (private and government universities). These analyses were carried out using means, frequencies and percentages; Independent samples t-Test, Pearson product-moment correlation, ANOVA, Regression and Association Rules.

4.2 SAMPLE PROFILE AND DEMOGRAPHICS

The research instrument was administered to faculty teaching Engineering and Management disciplines at Universities in North India. A usable sample of 376 was obtained. As given in table 4.1, showed that 48.9% of the respondents were males and 51.1 % were females.

Gender	Frequency	Percent
Male	184	48.9
Female	192	51.1
Total	376	100.0

Table 4.1: Summary of Gender of the Respondents

Marital status details are shown in Table 4.2. Out of the total, 68.1% respondents were married and 31.4% were single with just .5% belonging to other category.

Marital Status	**Frequency**	**Percent**
Single	118	31.4
Married	256	68.1
Others	2	0.5
Total	376	100.0

Table 4.2: Summary of Marital Status of the Respondents

43.1% respondents were below 29 years of age, 38.3% were between 30-39 years, 12.8% were between 40-49 years and 5.9% were above 50 years.

Age	**Frequency**	**Percent**
Below 29 years	162	43.1
30-39 years	144	38.3
40-49 years	48	12.8
Above 50 years	22	5.9

Table 4.3: Summary of Age of the Respondents

Table 4.4 shows that 58.2% respondents were teaching in private universities and 41.8% respondents were teaching in government universities.

University Type	**Frequency**	**Percent**
Private	219	58.2
Government	157	41.8
Total	376	100.0

Table 4.4: Summary of University type of the Respondents

Out of the total respondents, only 1.1% respondents (employed with private universities, since government universities do not have graduates at faculty positions) were graduates, 43.1% respondents were post graduates and 55.9% respondents held PhD degree.

Education	**Frequency**	**Percent**
Graduate	4	1.1
Post Graduate	162	43.1
PhD	210	55.9
Total	376	100.0

Table 4.5**:** Summary of Qualification of the Respondents

Table 4.6 shows that 16.5% respondents were Lecturers, 66.8% were Assistant Professors, 10.1% were Associate Professors and 6.6% respondents were Professors.

Academic Rank	**Frequency**	**Percent**
Lecturer	62	16.5
Assistant Professor	251	66.8
Associate Professor	38	10.1
Professor	25	6.6
Total	376	100.0

Table 4.6**:** Summary of Academic Rank of the Respondents

61.2% respondents were teaching engineering courses and 31.6% were teaching management courses.

Courses Teaching	**Frequency**	**Percent**
Engineering	230	61.2
Management	119	31.6
Both	27	7.2
Total	376	100.0

Table 4.7**:** Summary of Courses Teaching of the Respondents

Job tenure and position tenure details are shown in Table 4.8 and 4.9. Out of the total, 55.3% and 80.6% respondents have experience between 0-5 years in teaching and in the current position respectively.

Job Tenure	**Frequency**	**Percent**
0-5 years	208	55.3
5.1-10 years	98	26.1
10.1-15 years	38	10.1
15.1-20 years	12	3.2
15.1-30 years	4	1.1
30.1-35 years	8	2.1
35.1-40 years	4	1.1
40.1-45 years	4	1.1
Total	376	100.0

Table 4.8: Summary of Job Tenure of the Respondents

Position Tenure	**Frequency**	**Percent**
0-5 years	303	80.6
5.1-10 years	55	14.6
10.1-15 years	10	2.7
15.1-20 years	2	.5
15.1-30 years	6	1.6
Total	376	100.0

Table 4.9**:** Summary of Position Tenure of the Respondents

Out of the total respondents, only 23.4% respondents lived within university campus and 76.6% respondents lived outside the campus given in table 4.11.

Living Status	Frequency	Percent
Inside	88	23.4
Outside	288	76.6
Total	376	100.0

Table 4.10: Summary of Living Status of the Respondents

Out of the total respondents, 75.5% respondents were permanently employed with their universities and 23.9% were temporary given in table 4.11.

Employment	Frequency	Percent
Permanent	284	75.5
Temporary	90	23.9
Total	376	100.0

Table 4.11: Summary of Employment of the Respondents

Table 4.12 shows that 48.4% respondents had income below 3.9 lakhs, 37.8% had it between 4 to 6.9 lakhs, 10.4% had it between 7 to 9.9 lakhs and only 3.5% earned above 10 lakhs.

Income	Frequency	Percent
Below 3.9 Lakh	182	48.4
4-6.9 lakh	142	37.8
7-9.9 lakh	39	10.4
Above 10 Lakh	13	3.5
Total	376	100.0

Table 4.12**:** Summary of Income of the Respondents

4.3 DESCRIPTIVE STATISTICS

Means and standard deviations of predictors of job satisfaction, job satisfaction and affective commitment are computed using SPSS. Values of means and standard deviations are given in Table 4.13.

Predictors/ Constructs	Private		Government		Overall	
	Mean	SD	Mean	SD	Mean	SD
Salary	3.46	0.79	3.40	0.88	3.43	0.83
Promotion	3.87	0.45	3.64	0.76	3.77	0.61
Work Life Balance	3.58	0.43	3.48	0.53	3.54	0.48
Support from Supervisor	4.08	0.73	3.59	0.94	3.88	0.86
Support from Administration	3.74	0.77	3.50	0.88	3.64	0.82
Recognition at Workplace	3.12	0.32	3.11	0.46	3.11	0.38
Work Satisfaction	3.78	0.53	3.74	0.55	3.76	0.54
Job Satisfaction	3.66	0.38	3.49	0.54	3.59	0.46
Affective Commitment	3.97	0.54	3.78	0.65	3.89	0.59

Table 4.13: Means and Standard Deviations for predictors of Job Satisfaction, Job Satisfaction and Affective Commitment

For private universities, the values of means of predictors of job satisfaction range from 3.12 to 4.08 with standard deviations ranging from 0.32 to 0.79. For government universities, the values of means of predictors of job satisfaction range from 3.11 to 3.74 with standard deviations ranging from 0.46 to 0.94. For private universities, the values of

means of predictors of job satisfaction range from 3.12 to 4.08 with standard deviations ranging from 0.32 to 0.79. Overall, the values of means of predictors of job satisfaction range from 3.11 to 3.88 with standard deviations ranging from 0.38 to 0.86.

The highest mean score for predictors of job satisfaction in private universities was for support from supervisor and in government universities was for work satisfaction indicating higher satisfaction with the predictors.

4.4 TEST OF HYPOTHESIS

Research hypotheses are examined as per the following structure:

4.4.1 Job satisfaction and affective commitment of faculty teaching engineering and management courses

4.4.2 Job satisfaction and affective commitment of faculty across gender

4.4.3 Impact of demographic factors on job satisfaction and affective commitment

4.4.4 Relationship between job satisfaction and affective commitment.

4.4.1 Hypothesis 1 suggested that there is a variation in satisfaction with predictors and commitment among faculty in private and government universities teaching engineering and management courses. t-Tests were run for private and government universities separately for engineering and management faculty for the following:

H1(a) Faculty members in private and government universities will exhibit different levels of satisfaction with predictors of job satisfaction.

H1(b) Faculty members in private and government universities will exhibit different levels of affective commitment

Promotion, Support from Supervisor and Support from Administration were found to be significant in private universities. Salary, Recognition at Workplace and Work Satisfaction

were found to be significant in government universities. The results support H1(a). Table 4.14 and table 4.15 depict the results for the same.

t-Test analysis showed significant variation between engineering and management faculty belonging to private universities. For the case of promotion, there was a significant difference in satisfaction scores for engineering faculty (M=3.91, SD=0.33) and management faculty (M=3.69, SD=0.65); *t(199)=3.05, p=0.003*.The result suggested that engineering faculty with high mean value are more satisfied with their promotions in private universities. For support from supervisor, engineering faculty was more satisfied (M=4.15, SD=0.06) as compared to management faculty (M=3.90, SD=0.84); *t(199)=2.12, p=0.03.* For support from administration, engineering faculty was more satisfied (M=3.81, SD=0.75) as compared to management faculty (M=3.52, SD=0.79); *t(199)=2.37, p=0.01.*

Predictors/ Constructs	**Mean (SD)**		**t-value**
	Engineering	**Management**	
Salary	3.41 (0.77)	3.50 (0.89)	-0.66 (ns)
Promotion	3.91 (0.33)	3.69 (0.65)	3.05* (s)
Work Life Balance	3.57 (0.41)	3.57 (0.48)	0.07 (ns)
Support from Supervisor	4.15 (0.67)	3.90 (0.84)	2.12* (s)
Support from Administration	3.81 (0.75)	3.52 (0.79)	2.37* (s)
Recognition at Workplace	3.11 (0.32)	3.11 (0.32)	-0.02 (ns)
Work Satisfaction	3.78 (0.57)	3.84 (0.44)	-0.72 (ns)
Job Satisfaction	3.68 (0.34)	3.59 (0.47)	1.40 (ns)
Affective Commitment	3.95 (0.52)	4.06 (0.60)	-1.20 (ns)

*$p < 0.05$, s – significant, ns – non-significant

Table 4.14: Results for Private Universities in Engineering and Management Courses

For government universities, t-Test analysis showed significant variation between engineering and management faculty. For the case of salary, there was a significant difference in satisfaction among engineering faculty (M=3.23, SD=1.02) and management faculty (M=3.59, SD=0.65); *t(146)=-2.45, p=0.01.*This indicates that management faculty are more satisfied with the salary they are paid. For recognition at workplace, management faculty was more satisfied (M=3.24, SD=0.54) as compared to engineering faculty (M=2.98, SD=0.34); *t(146)=-2.22, p=0.00.* For work satisfaction, management faculty showed higher satisfaction (M=3.85, SD=0.53) as compared to engineering faculty (M=3.64, SD=0.56); *t(146)=-2.41, p=0.01.*

Affective commitment showed insignificant results for both private universities; *t(199)=-1.20, p=0.23* and government universities; *t(146)=-1.52, p=0.13* therefore showing lack of support for H1(b).

Predictors/ Constructs	**Mean (SD)**		**t-value**
	Engineering	**Management**	
Salary	3.23 (1.02)	3.59 (0.65)	-2.45* (s)
Promotion	3.65 (0.74)	3.56 (0.79)	0.69 (ns)
Work Life Balance	3.53 (0.52)	3.47 (0.51)	0.73 (ns)
Support from Supervisor	3.59 (0.93)	3.59 (0.95)	0.00 (ns)
Support from Administration	3.60 (0.83)	3.38 (0.93)	1.54 (ns)
Recognition at Workplace	2.98 (0.34)	3.24 (0.54)	-2.22* (s)
Work Satisfaction	3.64 (0.56)	3.85 (0.53)	-2.41* (s)
Job Satisfaction	3.46 (0.54)	3.53 (0.54)	-0.72 (ns)
Affective Commitment	3.70 (0.61)	3.86 (0.68)	-1.52 (ns)

*$p < 0.05$, s – significant, ns – non-significant

Table 4.15: Results for Government Universities in Engineering and Management Courses

4.4.2 Hypothesis 2 suggested that there is a variation in satisfaction with predictors and commitment among faculty in private and government universities across gender. t-Tests were run for private and government universities separately for male and female faculty for the following:

H2(a) Satisfaction with predictors of job satisfaction will have a significant variation across gender in private and government universities.

H2(b) Affective commitment in faculty will have a significant variation across gender in private and government universities.

The analysis showed significant variation between satisfaction levels of male and female faculty belonging to private universities for Work Life Balance, Support from Supervisor and Work Satisfaction. t-Test analysis showed significant variation between satisfaction levels of male and female faculty belonging to government universities for Recognition at Workplace. The results support H2(a). Table 4.16 and 4.17 depict the results for the same.

In private universities, for the case of work life balance, there was a significant difference in satisfaction scores in males (M=3.51, SD=0.45) and females (M=3.65, SD=0.39); $t(217)=-2.51$, $p=0.01$, suggesting that females are able to maintain higher work life balance. For support from supervisor, there was a significant difference in satisfaction scores in males (M=3.95, SD=0.77) and females (M=4.22, SD=0.65); $t(217)=-2.77$, p=0.006, suggesting that females have higher support from supervisors than males in private universities. For work satisfaction, there was again a significant difference in satisfaction scores in males (M=3.84, SD=0.44) and females (M=3.69, SD=0.60); $t(217)=2.08$, $p=0.03$, with male faculty showing higher work satisfaction.

Predictors/ Constructs	Mean (SD)		t-value
	Male	Female	
Salary	3.52 (0.69)	3.37 (0.87)	1.41 (ns)
Promotion	3.86 (0.48)	3.87 (0.40)	-0.12 (ns)
Work Life Balance	3.51 (0.45)	3.65 (0.39)	-2.51* (s)
Support from Supervisor	3.95 (0.77)	4.22 (0.65)	-2.77* (s)
Support from Administration	3.74 (0.80)	3.74 (0.72)	-0.04 (ns)
Recognition at Workplace	3.14 (0.20)	3.09 (0.36)	1.17 (ns)
Work Satisfaction	3.84 (0.44)	3.69 (0.60)	2.08* (s)
Job Satisfaction	3.65 (0.35)	3.66 (0.41)	-0.21 (ns)
Affective Commitment	4.01 (0.50)	3.91 (0.57)	1.34 (ns)

*$p < 0.05$, s – significant, ns – non-significant

Table 4.16: Results for Male and Female Faculty in Private Universities

For government universities, there was a significant difference in satisfaction scores in males (M=3.01, SD=0.32) and females (M=3.17, SD=0.53); *t(155)=-2.22, p=0.02* suggesting that females feel more recognized at workplace in comparison to males.

Affective commitment showed insignificant results for both private universities; *t(217)=1.34, p=0.18* and government universities; *t(155)=0.44, p=0.65,* therefore showing lack of support for H2(b).

Predictors/ Constructs	Mean (SD)		t-value
	Male	Female	
Salary	3.30 (0.77)	3.46 (0.94)	-1.12 (ns)
Promotion	3.57 (0.62)	3.69 (0.85)	-0.98 (ns)
Work Life Balance	3.53 (0.52)	3.43 (0.53)	1.09 (ns)
Support from Supervisor	3.56 (0.81)	3.60 (1.04)	-0.25 (ns)
Support from Administration	3.59 (0.75)	3.42 (0.97)	1.19 (ns)
Recognition at Workplace	3.01 (0.32)	3.17 (0.53)	-2.22* (s)
Work Satisfaction	3.68 (0.50)	3.77 (0.57)	-0.99 (ns)
Job Satisfaction	3.46 (0.42)	3.51 (.61)	-0.50 (ns)
Affective Commitment	3.80 (0.67)	3.76 (0.63)	0.44 (ns)

*$p < 0.05$, s – significant, ns – non-significant

Table 4.17: Results for Male and Female Faculty in Government Universities

4.4.3 Hypothesis 3 suggested that demographic factors have a significant impact on predictors of job satisfaction, overall job satisfaction and affective organizational commitment in private and government universities' faculty members. ANOVA was run for private and government universities separately for the following:

H3(a) There is a significant impact of demographic factors on predictors of job satisfaction in private universities

H3(b) There is a significant impact of demographic factors on job satisfaction and affective commitment in private universities

H3(c) There is a significant impact of demographic factors on predictors of job satisfaction in government universities

H3(d) There is a significant impact of demographic factors on job satisfaction and affective commitment in government universities

Results showed significant variation between different groups of faculty with respect to demographic factors, in private universities. The results support H3(a) and H3(b). Table 4.18 and 4.19 depict the results for the same.

Demographic Variables	Total Sample	Salary	Promoti-on	WLB	SS	SA	RW	WS	JS	AC
Gender	**Male**	3.52	3.86	3.51	3.95	3.74	3.14	3.84	3.40	4.01
	Female	3.37	3.89	3.65	4.22	3.74	3.09	3.69	3.65	3.91
	F value	2.00	0.15	6.31*	7.60*	0.00	0.13	4.30	0.15	1.79
Marital Status	**Unmarried**	3.39	3.93	3.58					3.66	3.97
	Married	3.49	3.82	3.57					3.65	3.95
	F value	0.76	2.86	0.04					0.02	0.36
Education	**Graduation**	2.58	4.06		4.00	4.00	3.30	4.03	3.71	3.95
	Post Graduation	3.32	3.86		4.10	3.70	3.06	3.66	3.64	3.88
	Ph.D.	3.58	3.86		3.90	3.63	3.17	3.85	3.67	4.00
	F value	4.19*	0.39		2.10	0.79	2.76*	4.09*	0.15	2.11
Academic Rank	**Lecturer**	3.21	3.75		3.95	3.60	3.12	3.83	3.57	3.89
	Assistant Professor	3.48	3.91		4.16	3.80	3.10	3.76	3.68	3.96
	Associate Professor	3.75	3.56		3.78	3.55	3.16	3.89	3.55	4.02
	Professor	3.08	3.92		3.67	3.76	3.23	3.75	3.66	4.06
	F value	1.86	3.32*		3.17*	0.83	0.74	0.26	1.16	0.49
Courses Teaching	**Engineering**	3.41	3.91	3.57	4.15	3.81	3.11	3.78	3.68	
	Management	3.50	3.69	3.57	3.90	3.52	3.11	3.84	3.59	
	F value	0.84	5.40	0.14	2.37*	2.80*	0.32	2.21	1.02	

Job Tenure	**0-5 years**	3.38	3.87				3.08	3.75	3.66	3.97
	5.1-10 years	3.51	3.94				3.20	3.74	3.70	3.95
	10.1-15 years	3.45	3.46				3.17	3.91	3.44	4.75
	15.1-20 years	4.24	3.91				3.33	3.95	3.46	4.40
	20.1-25 years	3.00	3.50				3.20	3.71	3.57	4.16
	25.1-30 years	4.00	3.75				3.00	3.85	3.74	4.08
	30.1-35 years	0.00	0.00				0.00	0.00	0.00	0.00
	35.1-40 years	3.40	4.37				3.60	3.85	3.57	4.16
	40.1-45 years	0.00	0.00				0.00	0.00	0.00	0.00
	F value	1.73	3.82				0.00	0.35	1.09	0.61*
Position Tenure	**0-5 years**		3.84					3.73	3.63	
	5.1-10 years		4.05					4.06	3.93	
	10.1-15 years		3.75					3.85	3.13	
	15.1-20 years		4.25					4.00	3.55	
	20.1-25 years		0.00					0.00	0.00	
	F value		2.14					2.76*	7.38*	
Living status	**Inside**			3.63					3.60	
	Outside			3.40					3.67	
	F value			10.57*					1.50	

Employment	**Permanent**	3.49		3.58	4.03	3.74	3.12	3.81	3.66	4.03
	Temporary	3.30		3.54	4.10	3.70	3.12	3.66	3.61	3.77
	F value	5.20		6.11*	2.30	2.80*	0.14	2.72*	5.25*	6.47*
Salary	**Below 3.9 Lakh**	3.30							3.64	3.92
	4-6.9 lakh	3.61							3.65	3.98
	7-9.9 lakh	3.82							3.77	4.1
	Above 10 Lakh	4.20							3.66	4.22
	F value	5.19							0.64	0.9

*p< 0.05

Table 4.18: Mean scores for One-Way ANOVA in Private Universities

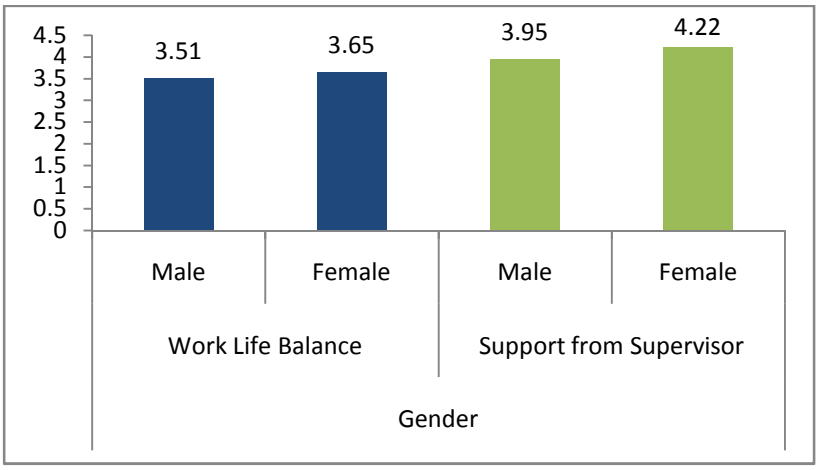

Figure 4.1: Mean scores of Gender for Work Life Balance and Support from Supervisor

For gender, there was a significant difference in faculty satisfaction with work life balance, with females showing higher satisfaction (M=3.65, SD=0.39) and males with relatively lower satisfaction (M=3.51, SD=45); $F(1,217)=6.31,\ p=0.01$. Also, for support from supervisor, females experienced higher satisfaction as compared to males; males (M=3.95, SD=0.77) and females (M=4.22, SD=0.65); $F(1,217)=7.60,\ p=0.006$.Support from supervisor may be an explanation leading to the ability of female faculty to maintain higher work life balance.

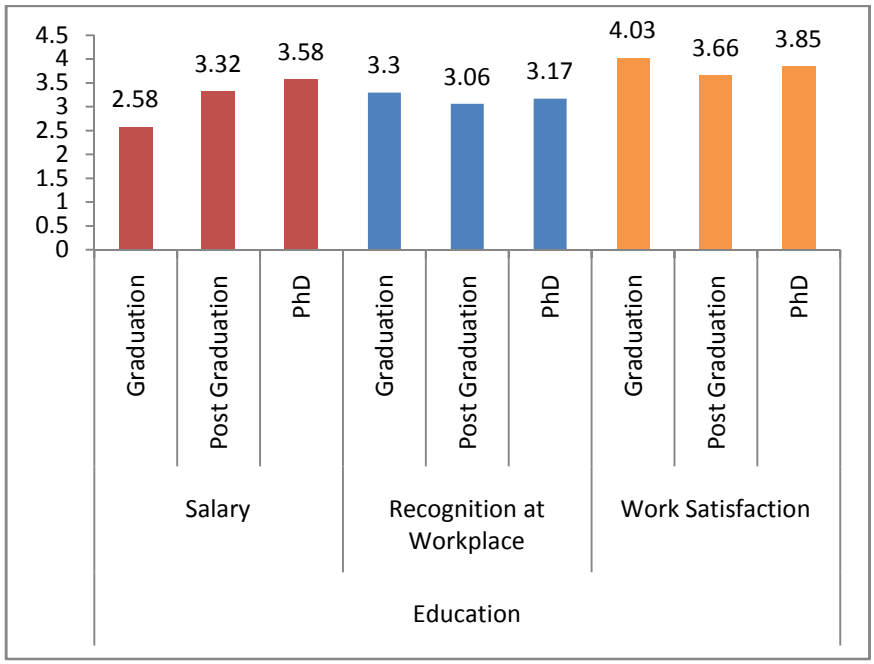

Figure 4.2: Mean scores of Education for Salary, Recognition at Workplace and Work Satisfaction

For the case of education, there was a significant difference in satisfaction level among faculty with different educational backgrounds. Faculty who were graduates (M=2.58, SD=1.01) were dissatisfied with the salaries being given to them, whereas faculty with PhD degree (M=3.58, SD=0.74) showed highest satisfaction; *F (2,216) =4.19, p=0.01.*This indicates that there is a significant difference in the salaries being paid to faculty holding graduate degree and PhD degree. Faculty holding graduate degrees felt more recognized at workplace (M=3.30, SD=0.11); F *(2,216) =2.76, p=0.06* as compared to faculty holding higher degrees. For faculty's satisfaction with work; *F (2,216) =4.09, p=0.01*; with faculty holding graduate degree experienced more satisfaction (M=4.03, SD=0.35).

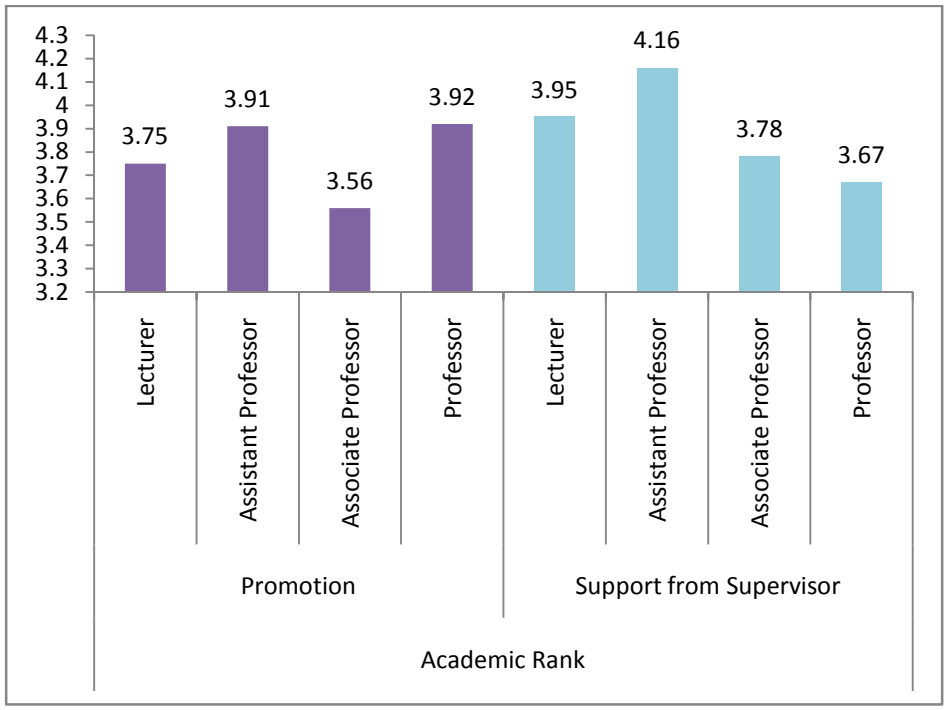

Figure 4.3: Mean scores of Academic Rank for Promotion and Support from Supervisor

For the case of academic rank, faculty holding Professor rank showed maximum satisfaction with promotion (M=3.92, SD=0.70); *F(3,215)=3.32, p=0.02,* as compared to faculty having ranks below with an exception of Assistant Professors (M=3.91, SD=0.41) who also felt satisfied with their promotions. There was a significant difference in support from supervisor for Assistant Professor's showing maximum satisfaction (M=4.16, SD=0.70); *F(3,215)=3.32, p=0.02.*

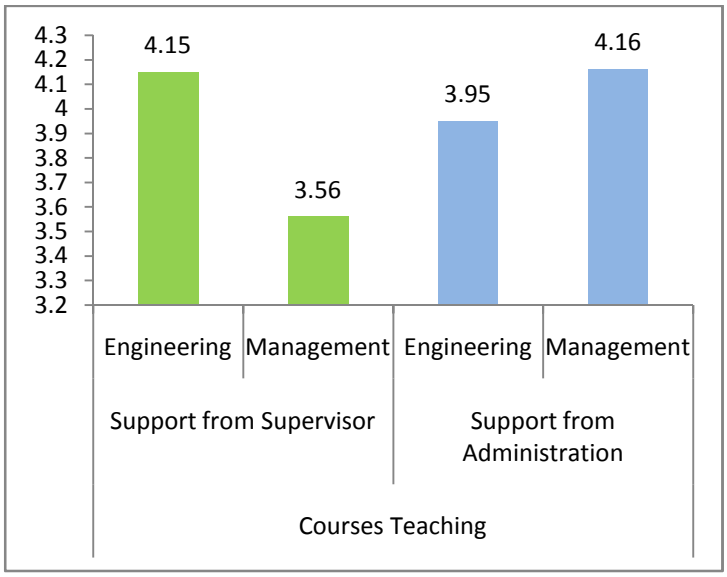

Figure 4.4: Mean scores of Courses Teaching for Support from Supervisor and Support from Administration

For courses teaching, there was a significant difference in faculty teaching engineering courses (M=4.15, SD=0.67) and management courses (M=3.56, SD=0.84); *F(2,216)=2.37, p=0.02* suggesting that employees teaching engineering courses feel they have more support from supervisor as compared to faculty teaching management courses. For support from administration, in faculty teaching engineering courses (M=3.95, SD=0.69) and management courses (M=4.16, SD=0.88); *F (2,216) =2.80, p=0.03*, management faculty experienced more support from administration.

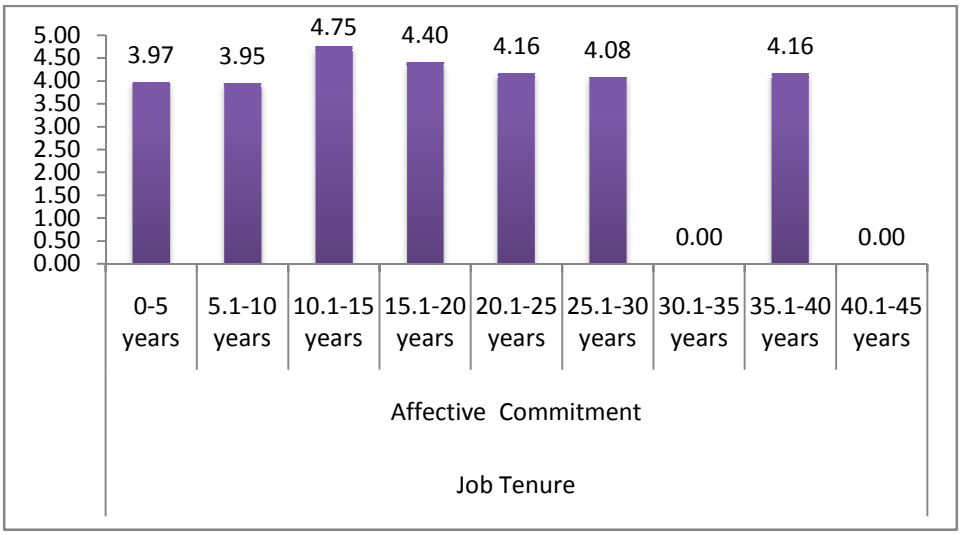

Figure 4.5: Mean scores of Job Tenure for Affective Commitment

For the case of job tenure, the faculty working with the university for 10-15 years showed higher commitment (M=4.75, SD=0.62); *F(6,122)=0.61, p=0.04*.

Figure 4.6: Mean scores of Position Tenure for Work Satisfaction and Job Satisfaction

For position tenure, there was a significant difference in work satisfaction; *F (2,216) =2.72, p=0.06*, with faculty holding same academic rank for 5-10 years being more satisfied with their work (M=4.06, SD=0.50). Faculty working for their university for 5-10 years at the same academic rank showed maximum job satisfaction levels (M=3.93, SD=0.33); *F (3,215) =7.38, p=0.00.*

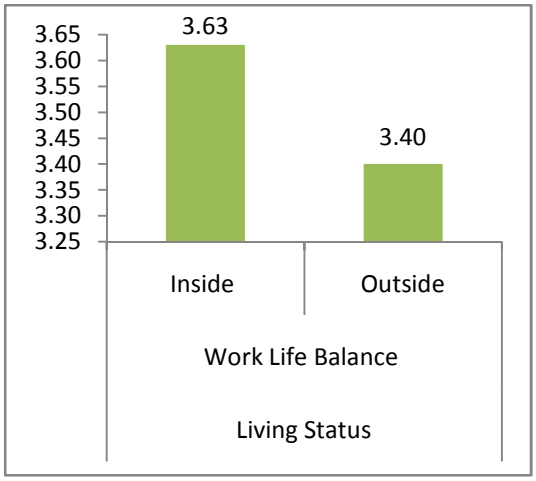

Figure 4.7: Mean scores of Living Status for Work Life Balance

For living status, faculty staying in the university campus were able to maintain higher work life balance (M=3.63, SD=0.42) as compared to faculty living outside the university campus (M=3.40, SD=0.41); *F (1,217) =10.57, p=0.001.*

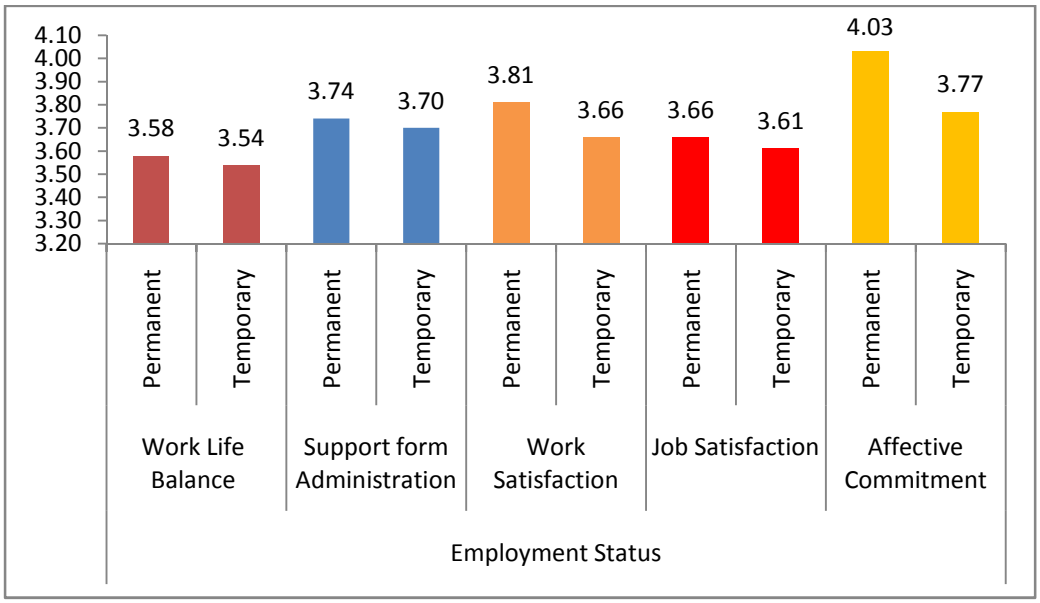

Figure 4.8: Mean scores of Employment Status for Work Life Balance, Support form Administration, Work Satisfaction, Job Satisfaction and Affective Commitment

In the case of employment, there was a significant difference in employees satisfaction with work life balance where, permanent faculty (M=3.58, SD=0.43) were more satisfied as compared to temporary faculty (M=3.54, SD=.38); *F(1,217)=6.11, p=0.003.* For support from administration, permanent faculty (M=3.74, SD=0.46) was more satisfied in comparison to temporary faculty (M=3.70, SD=0.49); *F (1,217) =2.80, p=0.03.* For work satisfaction, faculty who were permanent were more satisfied (M=3.81, SD=0.50) than temporary faculty (M=3.66, SD=0.59); *(2,216) =2.72, p=0.04.* For job satisfaction, permanent faculty showed higher job satisfaction (M=3.66, SD=0.38) as compared to temporary faculty (M=3.61, SD=0.34); *F (2,216)=5.25, p=0.006* as expected. For commitment, permanent faculty showed higher commitment (M=4.03, SD=0.53) as compared to temporary faculty (M=3.77, SD=0.49); *F (2,216)=6.47, p=0.002.*

Predictors/ Constructs	Interaction	Type III Sum of Squares	df	Mean Square	F-value	Significance
Salary	Gender * Age	5.10	2	2.55	4.37	0.01
	Gender * Marital Status	0.09	1	0.09	0.15	0.70
	Marital Status * Income	0.19	2	0.09	0.16	0.86
	Income * Gender	3.94	2	1.97	3.40	.035*
	Income * Courses Teaching	1.90	3	0.63	1.08	0.36
Promotion	Gender * Age	1.25	2	0.63	3.44	.034*
	Education * Academic Rank	0.21	4	0.05	0.27	0.90
	Courses Teaching * Position Tenure	0.52	3	0.17	0.92	0.43
Work Life Balance	Gender * Marital Status	0.31	1	0.31	1.68	0.20
	Marital Status * Living Status	0.26	1	0.26	1.44	0.23
Support from Supervisor	Gender * Academic Rank	3.73	3	1.24	2.50	.006*
	Education * Academic Rank	2.88	4	0.72	1.41	0.23

Support from Administration	Gender * Academic Rank	6.59	3	2.20	3.87	.010*
	Academic Rank * Education	2.26	4	0.57	0.96	0.43
Recognition at Workplace	Position Tenure * Academic Rank	0.16	5	0.03	0.33	0.89
	Education * Courses Teaching	0.70	3	0.23	2.40	.006*
Work Satisfaction	Gender * Marital Status	2.44	1	2.44	9.01	0.00
	Education * Courses Teaching	1.32	3	0.44	1.62	0.19
	Courses Teaching * Gender	0.45	2	0.22	0.80	0.45
Job Satisfaction	Gender * Academic Rank	2.40	3	0.80	5.89	.001*
	Gender * Marital Status	0.29	1	0.29	1.99	0.16
	Gender * Job Tenure	0.17	1	0.17	1.20	0.27
Affective Commitment	Gender * Marital Status	0.24	1	0.24	0.83	0.36
	Gender * Academic Rank	2.79	3	0.93	3.29	0.02*
	Gender * Courses Teaching	1.69	2	0.84	2.99	0.05
	Courses Teaching * Employment	0.53	2	0.26	0.95	0.39

*$p < 0.05$

Table 4.19: Mean scores for Two-Way ANOVA in Private Universities

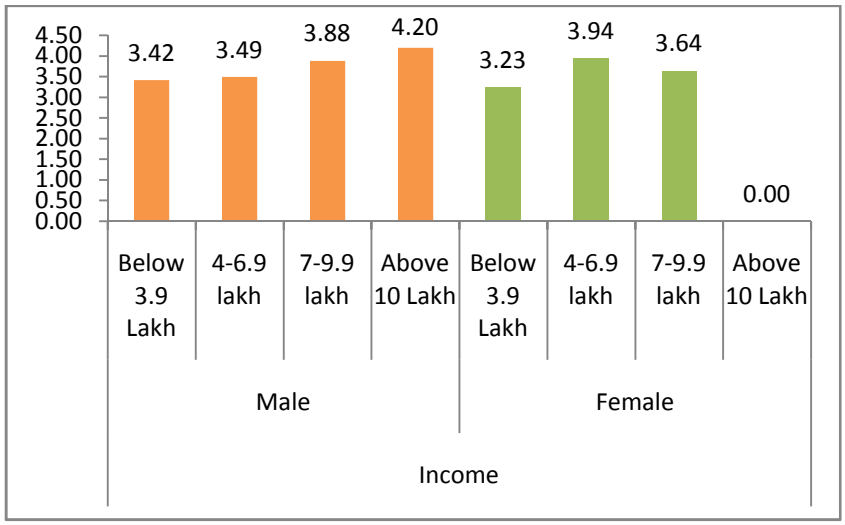

Figure 4.9: Mean scores of interaction between Income and Gender for Salary

For the case of salary, there was a significant interaction between income*gender; *F (6,212)=3.39, p=0.03*, with income showing significance at *p=0.03*. Male faculty showed higher satisfaction with salary (M=3.52, SD=0.69) as compared to female faculty (M=3.37, SD=0.87).

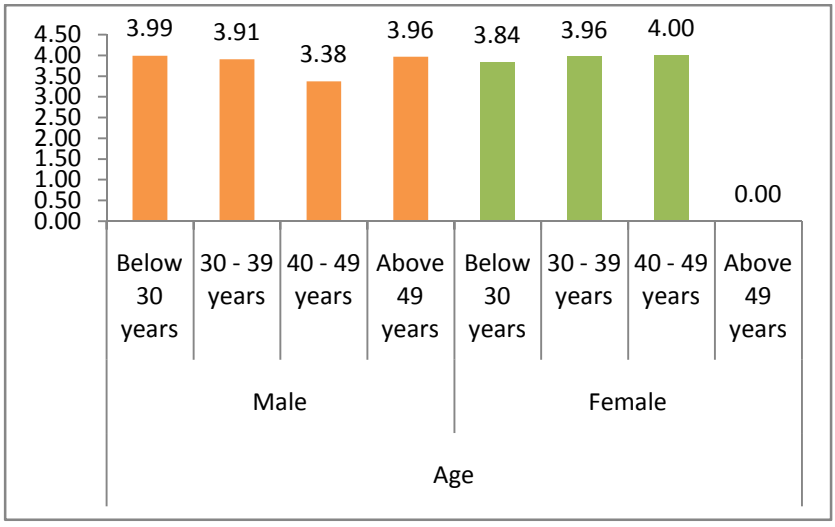

Figure 4.10: Mean scores of interaction between Age and Gender for Promotion

For promotion, there was an interaction between gender*age; *F (6,212)=3.44, p=0.03*. Male faculty between the age of 22-29 show higher satisfaction with promotion (M=3.92, SD=0.33) as compared to female faculty who show more satisfaction with promotion between the age 40-49 (M=3.37, SD=0.87).

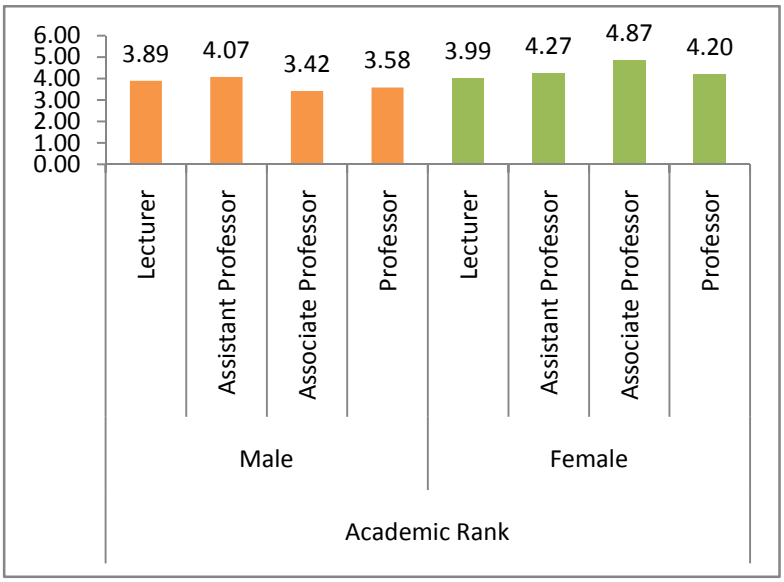

Figure 4.11: Mean scores of interaction between Academic Rank and Gender for Support from Supervisor

For support from supervisor**,** there was a significant interaction between gender*academic rank; *F (7,211) =2.50, p=0.05* and gender showed significance at *F(7,211)=9.51, p=0.002*. Male Assistant Professor's showed higher satisfaction with support from supervisor (M=4.07, SD=0.75) and female Associate Professor's showed more satisfaction (M=4.86, SD=0.23).

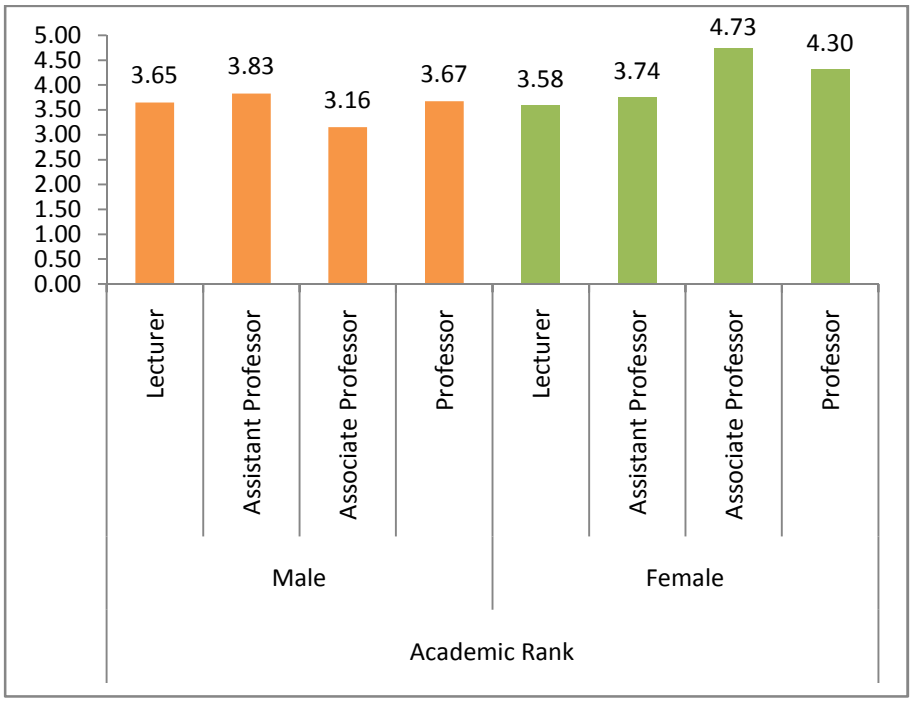

Figure 4.12: Mean scores of interaction between Academic Rank and Gender for Support from Administration

For support from administration, there was an interaction between gender*academic rank; *F (7,211) =3.87, p=0.01* and gender showed a significance at *F (7,211)=6.30, p=0.01*. Male Assistant Professor's showed higher satisfaction with administration (M=3.82, SD=0.76) and female Associate Professor's showed higher satisfaction (M=4.73, SD=0.46).

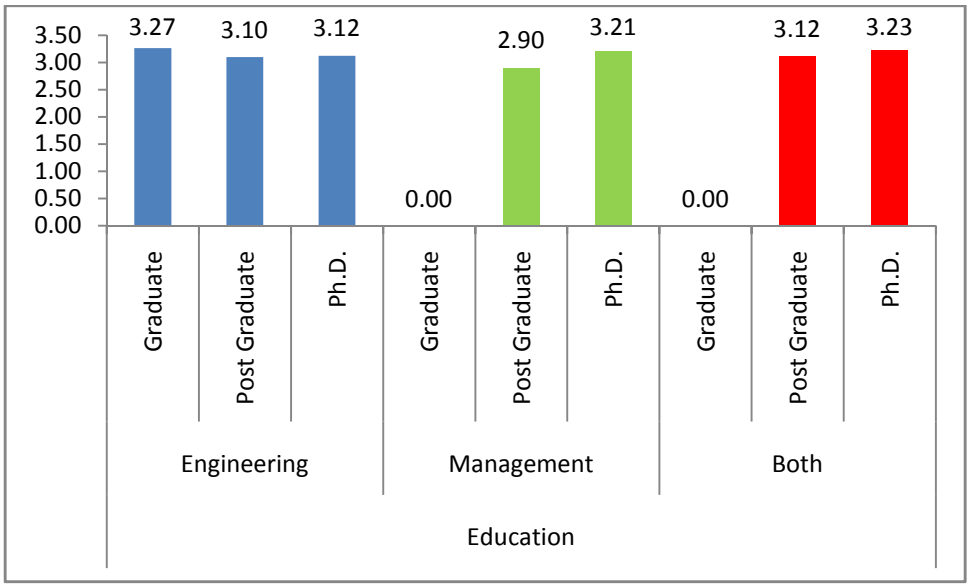

Figure 4.13: Mean scores of interaction between Education and Courses Teaching for Recognition at Workplace

For recognition at workplace, there was a significant interaction between education*courses teaching; *F (7,211) =2.39, p=0.04* and education showed significance at *F(7,211)=3.41, p=0.03*. Faculty with Ph.D. degree, teaching management courses felt most recognized (M=3.21, SD=0.25) whereas for engineering courses, graduate faculty felt most recognized (M=3.26, SD=0.11) and for faculty teaching both the courses, faculty with Ph.D. were more satisfied (M=3.22, SD=0.29).

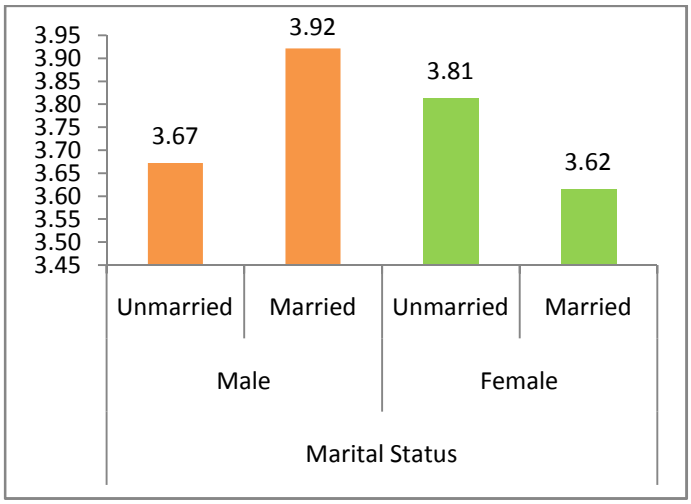

Figure 4.14: Mean scores of interaction between Marital Status and Gender for Work Satisfaction

For work satisfaction, there was a significant interaction between marital status*gender; *F (1,215) =9.01, p=0.003* and married males (M=3.92, SD=0.41) and unmarried females (M=3.81, SD=0.36) were more satisfied with their work.

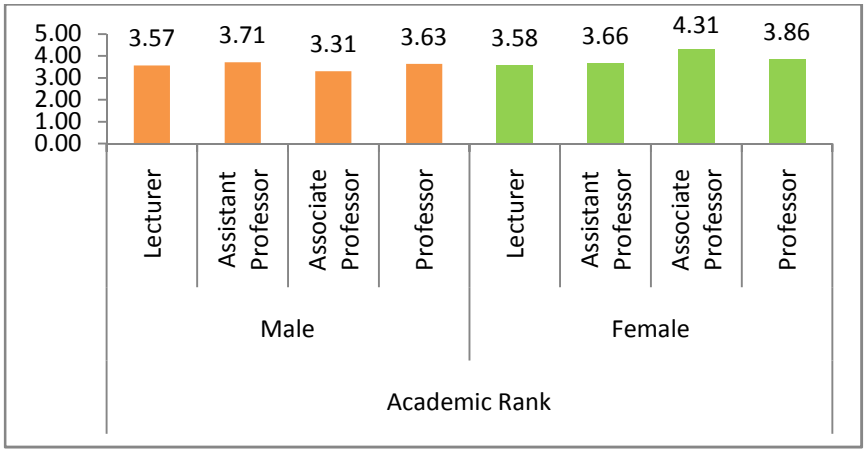

Figure 4.15: Mean scores of interaction between Academic Rank and Gender for Job Satisfaction

For job satisfaction, there was a significant difference in interaction between gender * academic rank, where the result was significant for Male Assistant Professor's (M=3.71, SD=0.34) and Female Associate Professor's (M=4.30, SD=0.46); *F(7,211)=0.61, p=0.001*. Gender shows significant results at *p=.003.*

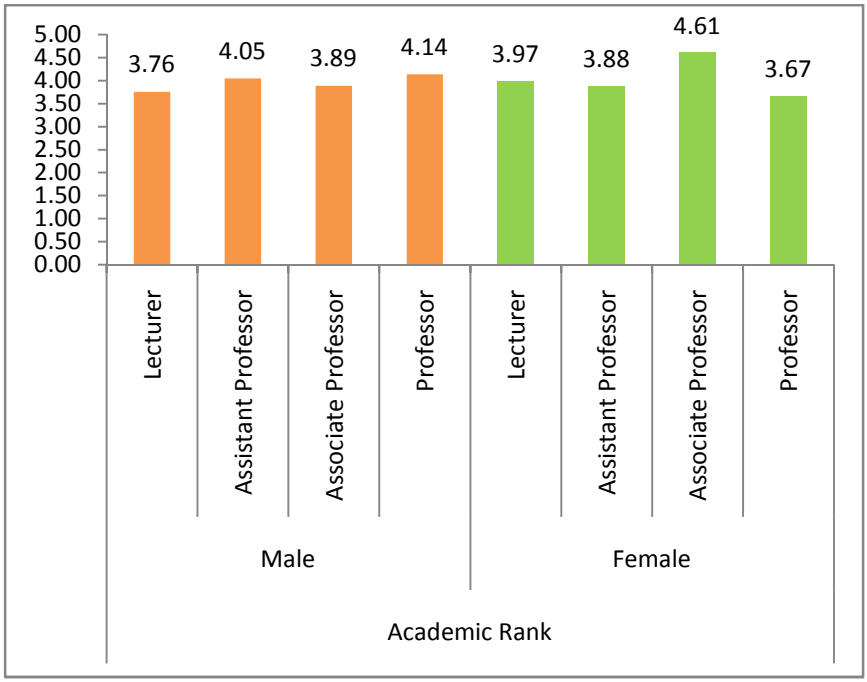

Figure 4.16: Mean scores of interaction between Academic Rank and Gender for Affective Commitment

For affective commitment, there was a significant difference in interaction between gender*academic rank, where the result for Male Professor's (M=4.14, SD=0.34) and Female Associate Professor's (M=4.61, SD=0.67); *F (3,211)=3.29, p=0.02*.

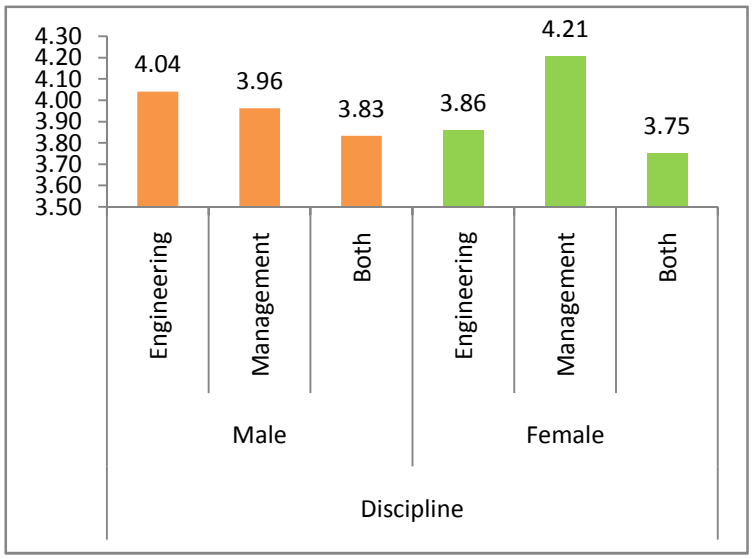

Figure 4.17: Mean scores of interaction between Courses Teaching and Gender for Affective Commitment

For affective commitment, there was a significant difference in interaction between courses teaching*gender, where the result for Male Engineering faculty (M=4.04, SD=0.48) and Female Management faculty (M=4.20, SD=0.65); *F (2,213) =2.99, p=0.05*.

Results showed significant variation between different groups of faculty with respect to demographic factors, in government universities. The results support H3(c) and H3(d). Table 4.20 and 4.21 depict the results for the same.

Demographic Variables	Total Sample	Salary	Promoti -on	WLB	SS	SA	RW	WS	JS	AC
Gender	**Male**	3.30	3.57	3.53	3.56	3.59	3.01	3.68	3.52	3.80
	Female	3.46	3.69	3.43	3.60	3.42	3.17	3.77	3.62	3.76
	F value	1.26	0.97	1.19	0.06	1.42	4.93	0.94	1.29	0.20
Marital Status	**Unmarried**	3.50	3.73	3.62					3.63	3.75
	Married	3.35	3.60	3.42					3.44	3.77
	F value	0.44	0.45	2.42*					2.14	1.92
Education	**Graduation**	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil
	Post Graduation	3.29	3.57		3.49	3.30	3.01	3.61	3.39	3.64
	Ph.D.	3.46	3.89		3.65	3.60	3.17	3.82	3.56	3.87
	F value	1.49	0.70		1.13	4.30	4.51	5.95	3.18*	5.25*
Academic Rank	**Lecturer**	2.71	3.17		3.42		2.96	3.75	3.28	3.43
	Assistant Professor	3.48	3.72		3.58		3.07	3.63	3.48	3.78
	Associate Professor	3.50	3.61		3.86		3.41	3.91	3.64	3.82
	Professor	3.86	4.04		3.40		2.96	4.11	3.65	4.40
	F value	7.50	5.06		1.14		5.67*	4.14*	2.34*	7.35*
Courses Teaching	**Engineering**	3.20	3.65	3.53	3.81	3.60	2.98	3.64	3.46	
	Management	3.50	3.56	3.47	3.52	3.38	3.24	3.25	3.53	
	F value	3.10	2.32	4.42*	2.85*	1.20	6.43*	3.03*	0.29	

Job Tenure	**0-5 years**	3.40	3.71				3.02	3.72	3.55	3.64
	5.1-10 years	3.16	3.50				3.12	3.53	3.29	3.71
	10.1-15 years	3.54	3.39				3.38	3.97	3.58	3.95
	15.1-20 years	3.60	4.08				3.13	3.80	3.58	4.50
	20.1-25 years	3.70	3.87				2.90	3.78	3.26	4.25
	25.1-30 years	0.00	0.00				0.00	0.00	0.00	0.00
	30.1-35 years	4.00	4.08				3.10	4.33	3.90	4.38
	35.1-40 years	0.00	0.00				0.00	0.00	0.00	0.00
	40.1-45 years	0.00	0.00				0.00	0.00	0.00	0.00
	F value	1.50	1.82				2.37	3.74*	2.50*	4.46*
Position Tenure	**0-5 years**		3.67					3.67	3.48	
	5.1-10 years		3.35					3.86	3.45	
	10.1-15 years		4.00					3.71	3.54	
	15.1-20 years		4.08					4.19	3.73	
	20.1-25 years		0.00					0.00	0.00	
	F value		2.77*					2.46*	0.46	
Living Status	**Inside**	3.44		3.43					3.54	
	Outside	3.37		3.49					3.49	
	F value	0.19		0.34					0.00	

Employment	**Permanent**	3.50	3.71	3.46	3.74	3.60	3.15	3.76	3.54	3.82
	Temporary	2.10	3.28	3.52	3.57	2.97	2.90	3.60	3.25	3.57
	F value	10.95	7.81*	0.28	2.82*	13.17	7.15	2.12	7.08	3.67*
Salary	**Below 3.9 Lakh**	3.37							3.53	3.81
	4-6.9 lakh	3.29							3.39	3.66
	7-9.9 lakh	3.58							3.69	3.87
	Above 10 Lakh	3.88							3.65	4.33
	F value	1.67							2.24	0.35*

*$p < 0.05$

Table 4.20: Mean scores for One-Way ANOVA in Government Universities

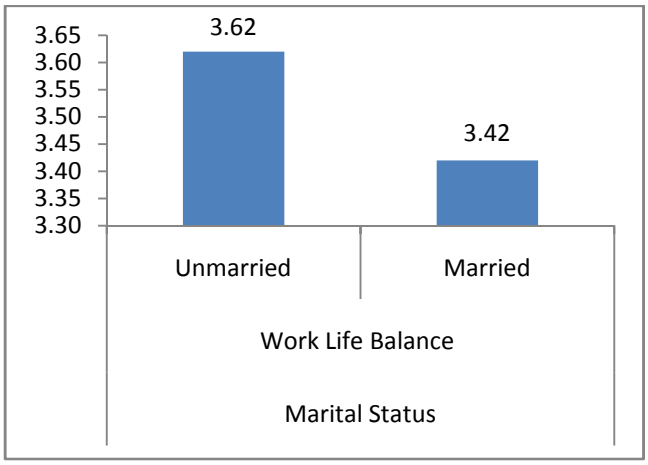

Figure 4.18: Mean scores of Marital Status for Work Life Balance

For marital status, unmarried faculty (M=3.62, SD=0.52) were able to maintain higher work life balance than married faculty (M=3.42, SD=0.52); *F (2,155) = 2.42, p=0.09.*

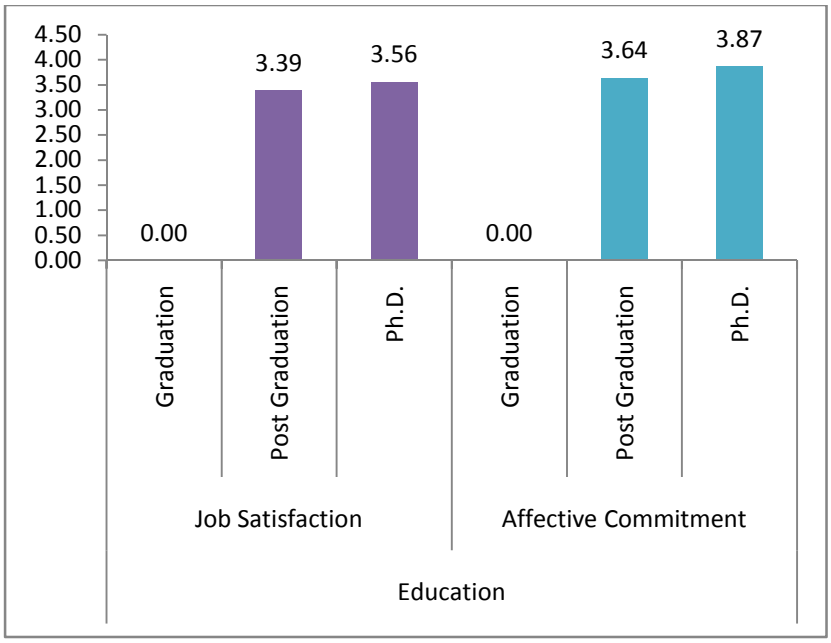

Figure 4.19: Mean scores of Education for Job Satisfaction and Affective Commitment

For the case of education, there was a significant difference in commitment levels in faculty who were post graduates (M=3.64, SD=0.64) and Ph.D. (M=3.87, SD=0.63); *F (1,55)=5.25, p=0.02*. Faculty with a post graduate degree showed relatively lower job satisfaction (M=3.39, SD=0.55) as compared to faculty holding Ph.D. degree (M=3.56, SD=0.51); *F(1,55)=3.88, p=0.05.* Therefore concluding that faculty holding Ph.D. degree were more satisfied and committed.

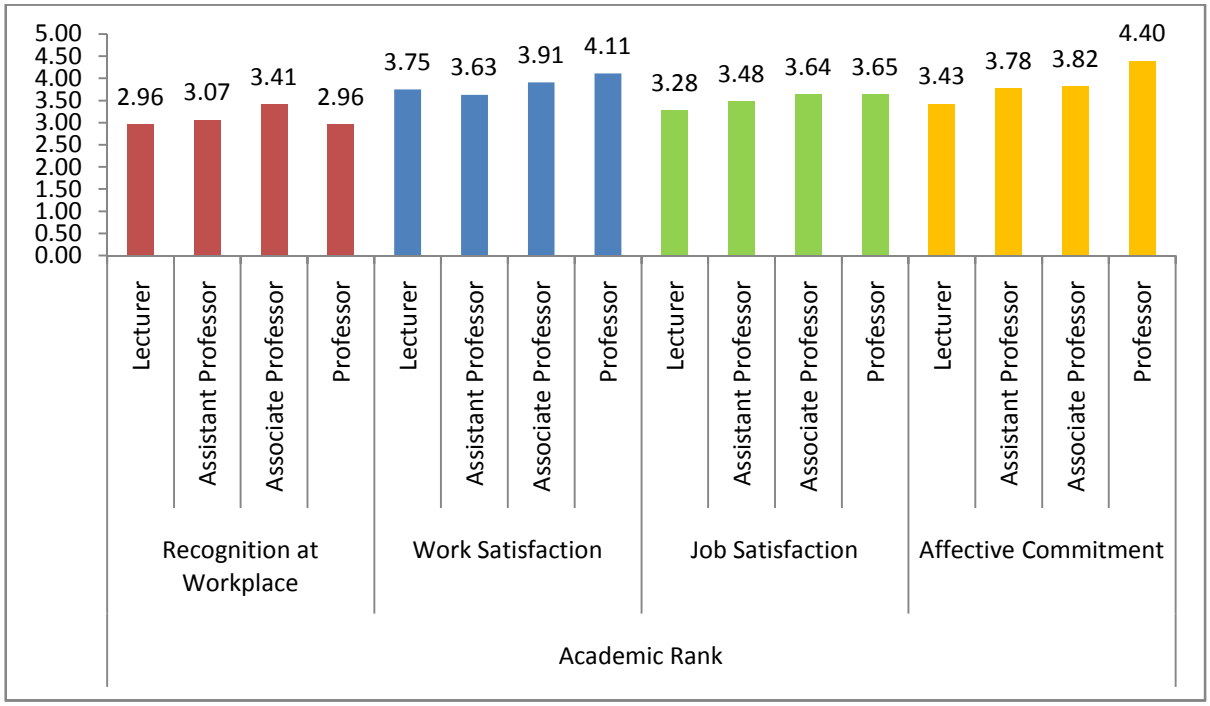

Figure 4.20: Mean scores of Academic Rank for Recognition at Workplace, Work Satisfaction, Job Satisfaction and Affective Commitment

For the case of academic rank, there was a significant difference in satisfaction for the faculty with different ranks; *F (3,153) =5.69, p=0.001* where Associate Professor's felt relatively more recognized (M=3.41, SD=0.64). For work satisfaction, *F(3,153)=4.14, p=0.007*, Professor's showed maximum satisfaction (M=4.11, SD=0.35) as compared to the

faculty with other ranks. For job satisfaction, Lecturer's (M=3.28, SD=0.65) were least satisfied and Associate Professor's and Professor's were most satisfied (M=3.65, SD=0.43); *F (3,153) =2.34, p=0.07.*For commitment, Lecturer's (M=3.43, SD=0.44), Assistant Professor's (M=3.78, SD=0.68), Associate Professor's (M=3.82, SD=0.51) and Professors (M=4.40, SD=0.48); *F(3,153)=7.35, p=0.00* showed a significant variation where Professor's showed maximum commitment

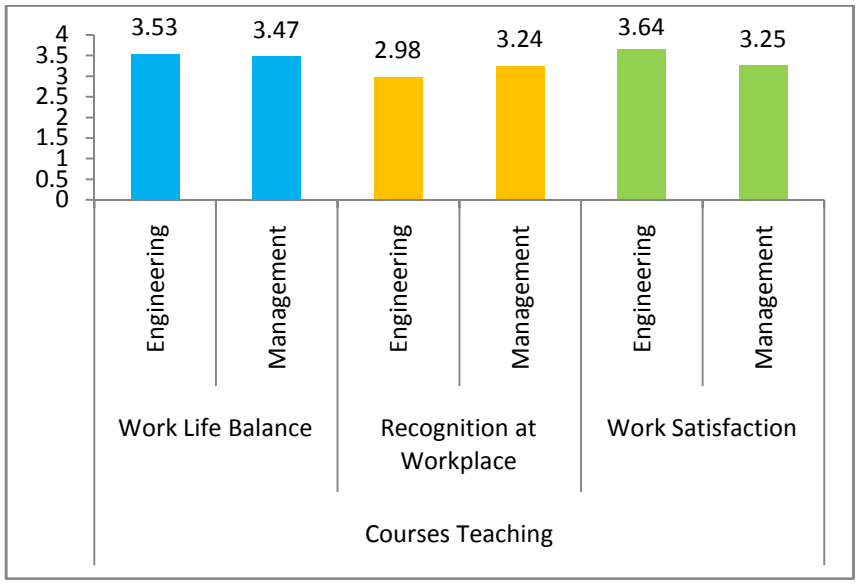

Figure 4.21: Mean scores of Courses Teaching for Work Life Balance, Recognition at Workplace and Work Satisfaction

For courses teaching, faculty teaching engineering courses were able to maintain higher work life balance (M=3.53, SD=0.52) as compared to faculty teaching management courses (M=3.47, SD= 0.51); *F (2,155)=4.42, p=0.01.* Engineering faculty experienced low recognition (M=2.98, SD=0.34) as compared to management faculty (M=3.24, SD=0.54*); F(2,154)=6.43, p=0.002.*Engineering faculty experienced higher work satisfaction

(M=3.64, SD=0.06) as compared to management faculty (M=3.25, SD=0.53); *F (2,154) =3.03, p=0.05.*

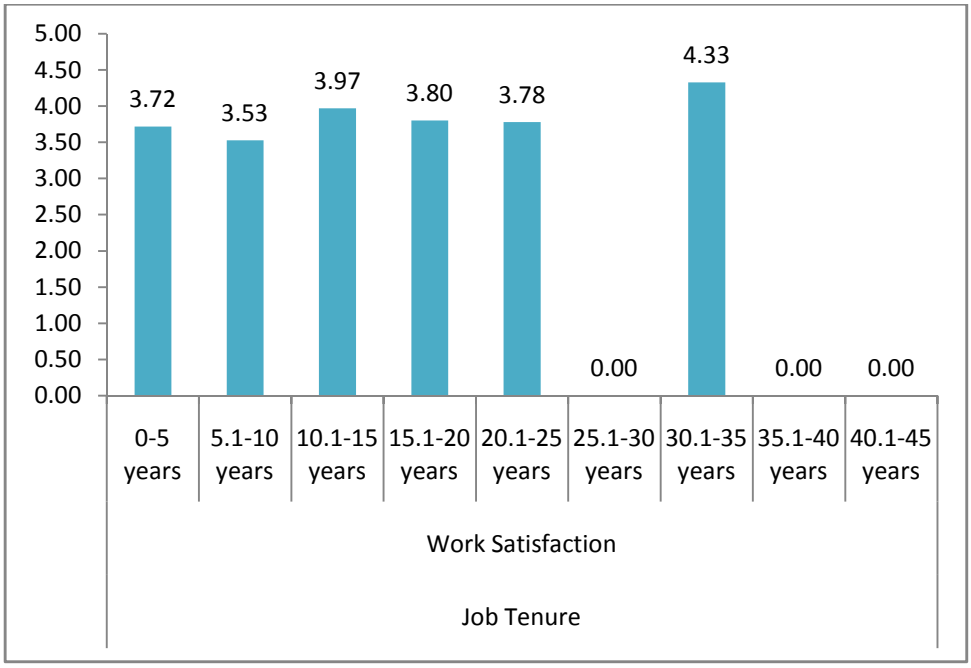

Figure 4.22: Mean scores of Job Tenure for Work Satisfaction

For job tenure, there was a significant difference in satisfaction where faculty having experience of 30-35 years were the most satisfied with their work (M=4.33, SD=0.32); *F (5,551)=3.74, p=0.003.*

Figure 4.23: Mean scores of Job Tenure for Job Satisfaction

For job tenure, faculty with experience of 30-35 years showed high job satisfaction (M=3.90, SD=0.44); *F (5,151) =2.58, p=0.02.*

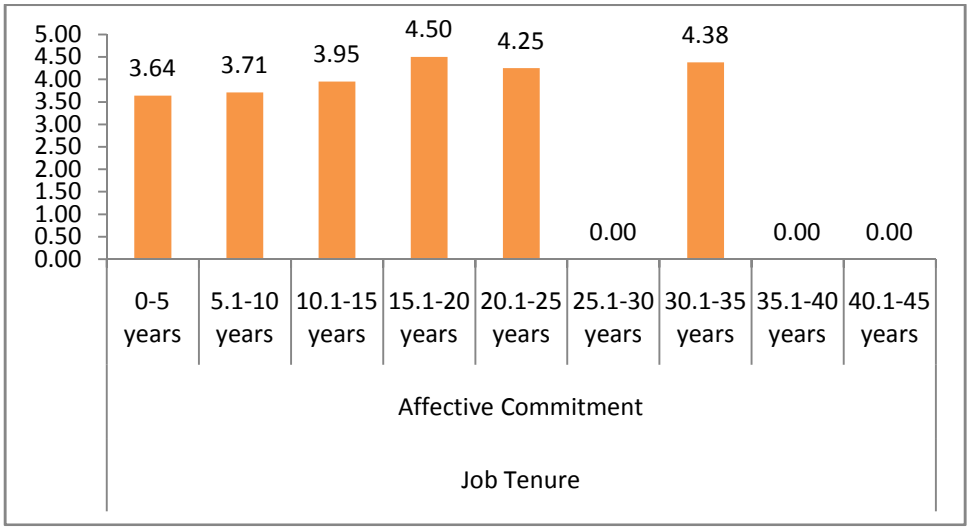

Figure 4.24: Mean scores of Job Tenure for Affective Commitment

For job tenure, faculty with an experience of 15-20 years showed higher commitment (M=4.50, SD=0.63); *F (5,151) =4.46, p=0.001*.

Figure 4.25: Mean scores of Position Tenure for Promotion and Work Satisfaction

For the case of position tenure, faculty holding their academic rank for 15-20 years were more satisfied with promotions (M=4.08, SD=0.25); *F (3,153) =2.77, p=0.043* and satisfied with their work (M=4.19, SD=0.51); *F(3,153)=2.46, p=0.05.*

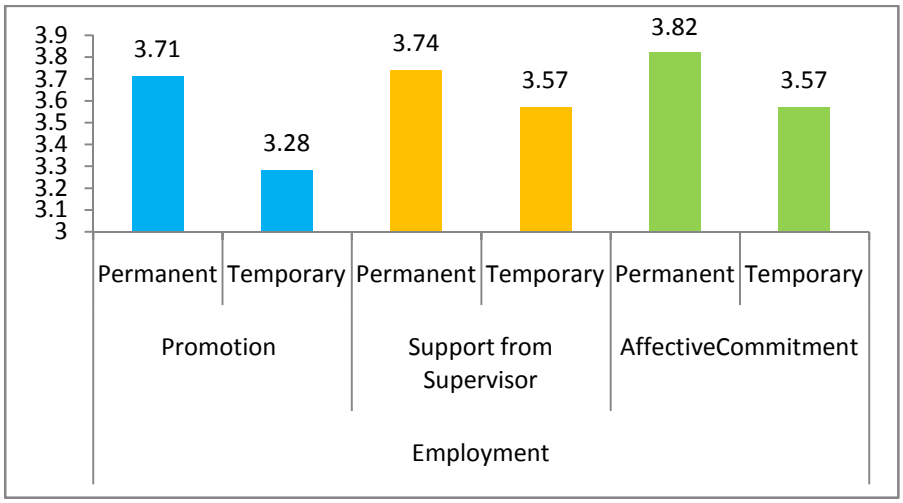

Figure 4.26: Mean scores of Employment for Promotion, Support from Supervisor and Affective Commitment

For employment, permanent faculty was more satisfied with promotion (M=3.71, SD=0.75); *F(1,155)=7.81, p=0.006,* support from supervisor (M=3.74, SD=0.76); *F(2,216)=2.82, p=0.006* and affective commitment (M=3.82, SD=0.64); *F(1,155)=3.67, p=0.05.*

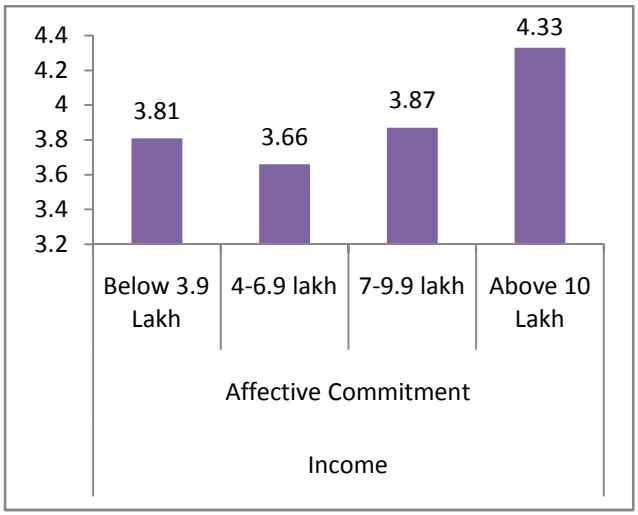

Figure 4.27: Mean scores of Income for Affective Commitment

For income, faculty who were drawing high salaries were more committed towards their universities (M=4.33, SD=0.45); *F (3,153)=0.35, p=0.01.*

Predictors/ Constructs	Interaction	Type III Sum of Squares	df	Mean Square	F-value	Significance
Salary	Gender * Age	2.01	3	0.67	0.87	0.46
	Gender * Marital Status	0.00	1	0.00	0.00	0.99
	Marital Status * Income	1.92	3	0.64	0.84	0.47
	Income * Gender	1.48	3	0.49	0.65	0.58
	Income * Courses Teaching	3.91	4	0.98	1.31	0.27
Promotion	Gender * Age	4.63	3	1.54	2.78	0.04
	Education * Academic Rank	0.04	2	0.02	0.03	0.97
	Courses Teaching * Position Tenure	1.78	3	0.59	1.08	0.36
Work Life Balance	Gender * Marital Status	2.05	1	2.05	7.85	0.01*
	Marital Status * Living Status	0.72	1	0.72	2.67	0.11
Support from Supervisor	Gender * Academic Rank	7.92	3	2.64	3.08	0.03
	Education * Academic Rank	0.40	2	0.20	0.22	0.80
Support from Administration	Gender * Academic Rank	6.88	3	2.29	3.04	0.03
	Academic Rank * Education	1.03	2	0.52	0.66	0.52

Recognition at Workplace	Position Tenure * Academic Rank	2.85	4	0.71	4.43	0.00
	Education * Courses Teaching	1.70	2	0.85	4.55	0.01
Work Satisfaction	Gender * Marital Status	0.02	1	0.02	0.06	0.80
	Education * Courses Teaching	1.12	2	0.56	2.01	0.14
	Courses Teaching * Gender	1.21	1	1.21	4.22	0.04*
Job Satisfaction	Gender * Academic Rank	2.80	3	0.93	3.47	0.02
	Gender * Marital Status	1.02	1	1.02	3.64	0.06
	Gender * Job Tenure	2.32	4	0.58	2.17	0.08
Affective Commitment	Gender * Marital Status	2.50	1	2.50	6.15	0.01*
	Gender * Academic Rank	0.22	3	0.07	0.19	0.91
	Gender * Courses Teaching	3.05	1	3.05	7.51	0.01*
	Courses Teaching * Employment	1.37	2	0.69	1.67	0.19

*p< 0.05

Table 4.21: Mean scores for Two-Way ANOVA in Government Universities

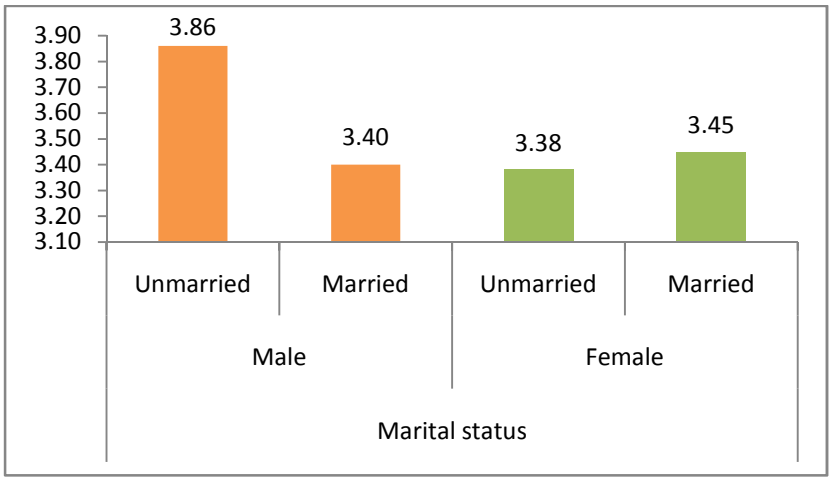

Figure 4.28: Mean scores of interaction between Marital Status and Gender for Work Life Balance

For work life balance**,** there was a significant difference in interaction between gender*marital status; *F (4,152)=7.85, p=0.006,* where the result was significant for males*unmarried (M=3.86, SD=0.36) and females*married (M=3.44,SD=0.53). Gender showed significant results at *p=.006* and marital status at *p=0.02.*

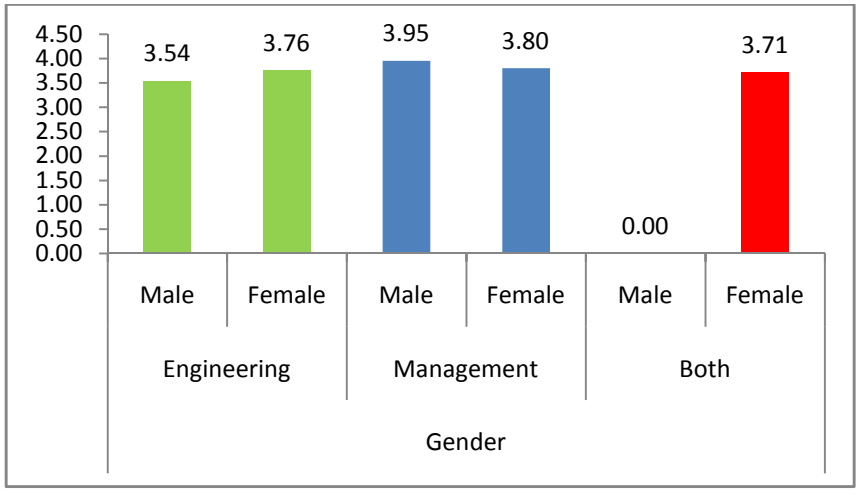

Figure 4.29: Mean scores of interaction between Gender and Courses Teaching for Work Satisfaction

For work satisfaction, there was an interaction between courses teaching*gender; *F (4,152)=4.21, p=0.042,* with courses teaching showing significance at *p=0.04*.Female faculty teaching engineering courses have higher satisfaction (M=3.76, SD=0.63) and male faculty teaching management courses showed higher satisfaction (M=3.95, SD=0.42).

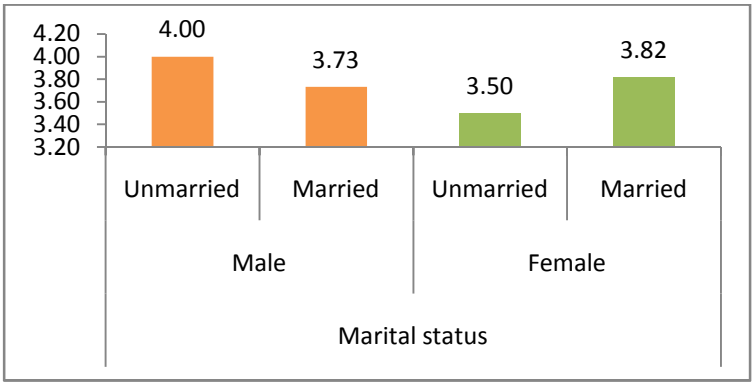

Figure 4.30: Mean scores of interaction between Marital Status and Gender for Affective Commitment

For affective commitment, there was a significant interaction between gender*marital status*; F (4,152)=6.14, p=0.01*. Males who were single (M=4.00, SD=0.59) and female faculty who were married showed more commitment (M=3.81, SD=0.59). Also, males teaching management courses (M=4.13, SD=0.69) and females teaching engineering courses showed more commitment (M=3.79, SD=0.63), depicted in figure 4.31

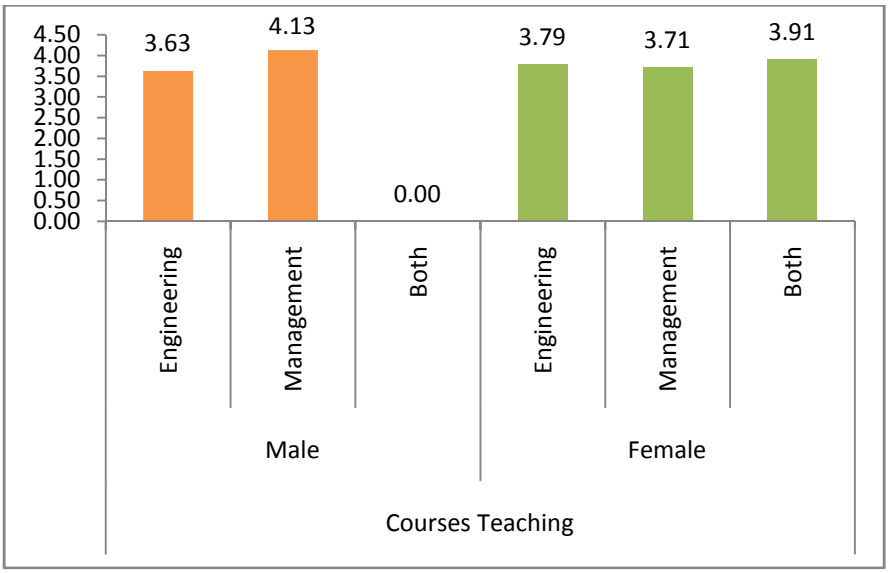

Figure 4.31: Mean scores of interaction between Courses Teaching and Gender for Affective Commitment

4.4.4 Hypothesis 4 suggested that there is a positive and significant relationship between job satisfaction and affective commitment. A Pearson-product-moment correlation was run for testing H4. The output confirms that there exists a significant positive relationship between job satisfaction and affective commitment *(r=0.431, p<.05); p=0.00*. Thus job satisfaction is positively correlated with affective commitment. We can therefore conclude that faculty with a higher satisfaction show more commitment towards their university and the result supports H4.Table 4.22 depicts the results.

	Job Satisfaction	**Affective Commitment**
Job Satisfaction	1	.431**
Affective Commitment	.431**	1

** Correlation is significant at the 0.01 level (2-tailed)

Table 4.22: Pearson Correlation between Job satisfaction and Affective Commitment

4.4.5 Prediction of Variables Leading Job Satisfaction

In order to predict variables that lead to higher job satisfaction in universities, association rules and hierarchical regression were used. This analysis measures objective 5 that is to identify the predictors that lead to higher job satisfaction among faculty in private and government universities.

4.4.5.1 Association rules

Association rules, using Apriori algorithm help us identify the strongest predictors of job satisfaction from the given set of responses in private and government universities.The results are depicted in table 4.23 and 4.24.

4.4.5.1.1 Results for Private Universities

The rules suggest that the major determining factors for job satisfaction in private universities are Support from Administration, Salary and Promotion. Faculty who experienced higher satisfaction with support from administration showed higher job satisfaction for most of the rules. Other rules majorly suggest that satisfaction with salaries and promotions also lead to higher job satisfaction.

Rule No.	Rules	No. of times the rule occurred in the data	JS value	No. of times JS occurred in the data	Confidence (%)
1	SA=d; WS=d ==> JS =d	156	d	136	87
2	Pro.=d; SA=d; WS=d ==> JS=d	145	d	126	87
3	Sal.=d; WS=d ==> JS=d	139	d	117	84
4	SA=d ==> JS =d	181	d	150	83
5	Pro.=d; SA=d ==> JS=d	165	d	135	82
6	SA=d; WS=d ==> Pro.=d; JS=d	156	d	126	81

7	Pro.=d; RW=c; WS=d==>JS =d	164	d	128	78
8	Pro.=d; WS=d ==> JS=d	225	d	174	77
9	Sal.=d; Pro.=d ==> JS=d	164	d	126	77
10	Pro.=d; SA=d ==>WS=d; JS =d	165	d	126	76
11	SA=d ==> WS=d; JS=d	182	d	137	75
12	SA=d ==> WS=d; JS=d	181	d	136	75
13	SA=d ==> Pro.=d; JS=d	181	d	135	75
14	RW=c; WS=d ==> JS=d	189	d	134	71
15	Pro.=d; RW=c ==> JS=d	203	d	143	70
16	SA=d ==> Pro.=d;WS=d; JS =d	181	d	126	70
17	Pro.=d ==> JS=d	281	d	195	69
18	WS=d ==> JS=d	274	d	190	69
19	Sal.=d ==> Pro.=d; JS =d	182	d	126	69
20	RW=c;WS=d ==>Pro.=d; JS =d	189	d	128	68
21	Sal.=d ==> WS=d; JS=d	182	d	117	64
22	WS=d ==> Pro.=d; JS=d	274	d	174	64
23	Pro.=d ==> WS=d; JS=d	281	d	174	62

Table 4.23: Association Rules for Private Universities

4.4.5.1.2 Results for Government Universities

The rules suggest that the major determining factors for job satisfaction in government universities are Support from Administration, Salary, Promotion and Support from Supervisor. Faculty who experience higher satisfaction, with the administration and supervisor show higher job satisfaction, for most of the rules. Other rules majorly suggest that satisfaction with promotion and salary also lead to higher job satisfaction.

Rule No.	Rules	No. of times the rule occurred in the data	JS value	No. of times JS occurred in the data	Confidence (%)
1	SS =d; WS =d ==> JS =d	43	d	40	93
2	Sal.=d; SA =d ==> JS =d	44	d	40	91
3	SA =d; WS =d ==> JS =d	54	d	48	89
4	Pro.=d; SA =d; WS=d ==> JS =d	52	d	46	88
5	SA =d ==> JS =d	61	d	52	85
6	SA =d; WS =d ==> Pro.=d; JS =d	54	d	46	85
7	Pro. =d; SA =d ==> JS =d	58	d	49	84
8	SA=c ==> JS=c	51	d	43	84
9	Sal. =d; WS=d ==> JS =d	55	d	46	84
10	Sal.=d; Pro.=d; WS =d ==>JS =d	53	d	44	83
11	Pro.=d; WS =d ==> JS =d	77	d	62	81
12	Pro.=d; SS =d ==> JS =d	51	d	41	80
13	SA =d ==> Pro.=d; JS =d	61	d	49	80
14	Sal.=d; WS =d ==> Pro.=d; JS =d	55	d	44	80
15	WLB =d ==> JS =d	50	d	40	80
16	Pro.=d; SA =d ==> WS =d; JS =d	58	d	46	79
17	SA =d ==> WS =d; JS =d	61	d	48	87
18	Pro.=d;RW =c; WS =d ==> JS =d	52	d	40	77
19	SA =d ==> Pro.=d; WS =d; JS =d	61	d	46	75
20	Sal.=d; Pro.=d ==> JS =d	68	d	51	75
21	Sal.=d ==> JS =d	74	d	54	73
22	SS =d ==> JS =d	61	d	44	72
23	Sal.=d ==> Pro.=d; JS=d	74	d	51	69
24	Pro.=d ==> JS =d	101	d	69	68

25	SS =d ==> Pro. =d; JS =d	61	d	41	67
26	SA =d ==> Sal.=d; JS =d	61	d	40	66
27	SS =d ==> WS =d; JS =d	61	d	40	66
28	Sal.=d; Pro.=d ==> WS =d; JS =d	68	d	44	65

Table 4.24**:** Association Rules for Government Universities

4.4.5.2 Multiple Regression

Multiple Regression is used when independent variables are correlated with one another and with the dependent variable. Hierarchical regression models were constructed in order to determine the effect of predictors on job satisfaction from prior knowledge obtained through literature, t-Test, ANOVA and Association Rules study.

The order of predictors is important in a hierarchical regression model. Therefore the predictors with maximum assumed effect were added first, followed by less effective predictors. The R^2 value of the model indicated the amount of variation in the model. To understand the effect of each individual predictor, the predictors were individually added one after the other and new regression model was created after each addition. In order to determine the total variation achieved by the addition of the predictors, R^2 change value of hierarchical regression was observed, which indicated how much additional variation had been created by addition of a new factor. This R^2 change value has been used to determine the effect of addition of new predictor on the regression model. If R^2 change value is high it means that a particular predictor has a major effect.

4.4.5.2.1 Result of Hierarchical Regression for Private Universities

Three predictors were identified as most determining for job satisfaction. They were Support from Supervisor, Support from Administration and Salary. Consequently three models were

constructed: I[st] Model – Support from supervisor as 1[st] predictor (R^2change=0.534), II[nd] Model - Support from administration as 1[st] predictor (R^2change=0.694) and III[rd] Model – Salary as 1[st] predictor (R^2change=0.480). Above three R^2 change value indicate that support from administration is the most determining factor for the case of job satisfaction in private universities. Hence, support from administration in combination with salary, is the most appropriate hierarchical model to predict job satisfaction.

Predictors of JS	**Model 1 (β)**	**Model 2 (β)**	**Model 3 (β)**	**Model 4 (β)**	**Model 5 (β)**	**Model 6 (β)**	**Model 7 (β)**
Support from Administration	0.833	0.652	0.336	0.309	0.250	0.336	0.304
Salary		0.299	0.379	0.352	0.353	0.344	0.313
Support from Supervisor			0.400	0.361	0.338	0.326	0.290
Promotion				0.169	0.194	0.204	0.177
Work Life Balance					0.229	0.176	0.190
Recognition at Workplace						0.267	0.166
Work Satisfaction							0.211
Regression Summary Model							
R^2	0.694	0.751	0.835	0.858	0.906	0.970	1.000
Adjusted R^2	0.692	0.749	0.833	0.855	0.903	0.969	1.000
R^2 Change	0.694	0.057	0.084	0.022	0.048	0.064	0.030

Table 4.25: Hierarchical Regression Results for Private Universities

Regression Equation:

JS= 1.008E-013 + 0.234 (SA) + 0.232 (Sal.) + 0.250 (SS) + 0.201 (Pro.) + 0.195 (WLB) + 0.150 (RW+ 0.145 (WS)

Since support from administration was identified as the most determining predictor, regression test was performed in combination with demographic factors and support from administration. The result indicated that 6% variation on job satisfaction occurred because of demographic factors. It suggests that demographic variables have little significance in overall prediction of job satisfaction.

Demographic Variables	**Model 1(β)**
Gender	-0.079
Marital Status	-0.014
Education	0.037
Academic Rank	-0.008
Courses Teaching	-0.060
Job Tenure	-0.035
Position Tenure	-0.055
Living Status	0.154
Employment	0.057
Age	0.187
Salary	0.140
Regression Summary Model	
R^2	0.060
Adjusted R^2	-0.003
R^2 Change	0.060

Table 4.26: Result for Demographic Variables and Support from Administration

4.4.5.2.2 Result of Hierarchical Regression for Government Universities

Three predictors were identified as most determining for job satisfaction. They were support from supervisor, support from administration and salary. Consequently three models were

constructed: I[st] Model – support from supervisor as 1[st] predictor (R^2change=.724), II[nd] Model – support from administration as 1[st] predictor (R^2change=.761) and III[rd] Model – Salary as 1[st] predictor (R^2change=.456). Above three R^2 change value indicate that support from administration is the most determining factor for the case of job satisfaction in government universities. Model 7 below represents the most appropriate model for job satisfaction.

Predictors of JS	**Model 1 (β)**	**Model 2 (β)**	**Model 3 (β)**	**Model 4 (β)**	**Model 5 (β)**	**Model 6 (β)**	**Model 7 (β)**
Support from Administration	0.873	0.723	0.384	0.380	0.359	0.285	0.234
Salary		0.260	0.261	0.215	0.234	0.258	0.232
Support from Supervisor			0.443	0.398	0.228	0.266	0.250
Promotion				0.125	0.207	0.209	0.201
Work Life Balance					0.299	0.195	0.195
Recognition at Workplace						0.206	0.150
Work Satisfaction							0.145
Regression Summary Model							
R^2	0.761	0.807	0.888	0.898	0.964	0.992	1.000
Adjusted R^2	0.760	0.804	0.886	0.895	0.962	0.992	1.000
R^2 Change	0.761	0.045	0.082	0.009	0.066	0.028	0.008

Table 4.27: Hierarchical Regression Results for Government Universities

Regression Equation:

JS = 1.019E-013 + 0.234 (SA) + 0.232 (Sal.) + 0.250 (SS) + 0.201 (Pro.) + 0.195 (WLB) + 0.150 (RW) + 0.145 (WS)

Since support from administration was identified as the most determining predictor, regression test was performed in combination with demographic factors and support from administration. The result indicated that 17% variation on job satisfaction occurred because of demographic factors. It suggests that demographic variables have little significance in overall prediction of job satisfaction.

Demographic Variables	**Model 1(β)**
Gender	0.152
Marital Status	-0.351
Education	0.238
Academic Rank	0.213
Courses Teaching	-0.069
Living Status	-0.018
Employment	-0.226
Age	-0.123
Salary	0.000
Job Tenure	0.056
Position Tenure	-0.068
Regression Summary Model	
R^2	0.170
Adjusted R^2	0.107
R^2 Change	0.170

Table 4.28: Result for Demographic Variables and Support from Administration

CHAPTER 5
DISCUSSION

5.1 INTRODUCTION

The purpose of this chapter is to provide an overview of the study findings, conclusions and discuss theoretical and practical implications of the study. In addition, limitations of the current study and possible future studies are discussed.

5.2 OVERVIEW OF THE FINDINGS

The purpose of the study was to examine job satisfaction and affective organizational commitment. For testing each hypothesis, various statistical tests were run. Tests revealed that the satisfaction level of faculty with the predictors in private and government universities varied. In addition, demographics' also revealed variation in satisfaction level of faculty.

Hypothesis 1 suggested that there is a variation in satisfaction with predictors and commitment among faculty in private and government universities teaching engineering and management courses. H1(a) was supported whereas H1(b) showed lack of support. In private universities, faculty showed significant satisfaction with promotion, support from supervisor and support from administration. This suggests that faculty satisfaction can be increased by working on the other variables as well. Also for the faculty that showed lower levels of satisfaction and commitment, the administration can work on providing support to them. In government universities, faculty was satisfied with salary, recognition and work. This suggests that faculty feels that they are able to do a variety of tasks and feels recognized for doing that. Also their satisfaction with the salary suggests that they feel they are being compensated fairly well.

Hypothesis 2 suggested that there is a variation in satisfaction with predictors and commitment among faculty in private and government universities across gender. H2(a), H2(b), H2(c),and H2(d) were supported. In private universities, faculty experienced support from supervisors and were able to maintain work life balance. This suggests that due to supportive environment from supervisor allows faculty to maintain higher work life balance. This is higher for female faculty. As a consequence of supportive environment we can also conclude that faculty experiences higher satisfaction with work that is higher among male faculty. In government universities, faculty feel more recognized for the work they do and female faculty feels they are more recognized. Commitment showed insignificant results for both private and government universities.

Hypothesis 3 suggested that demographic factors have a significant impact on predictors of job satisfaction, overall job satisfaction and affective commitment in private and government universities' faculty members. This hypothesis was supported. Results suggested that in private universities faculty experienced higher work life balance that may be higher due to support from supervisor. Also faculty with Ph.D. degree are paid higher salary, have greater opportunities to explore a variety of work and assignments and are therefore more recognized as compared to other faculty. Faculty with different academic ranks showed a variation in satisfaction with the predictors of job satisfaction, where Assistant Professor's experienced higher support from supervisor and felt they had higher opportunity for promotions. Engineering faculty on the other hand had experienced higher support from supervisor and administration. This may also be due to the size of the organization and also the engineering discipline, faculties are teaching. With an experience of 5-15 years in teaching, faculty are more committed and satisfied. Permanent faculty and faculty residing within university campus were again more satisfied. There were also significant interactions where gender played a very important role. This would signify that gender is a determining demographic factor while assessing satisfaction with various aspects of a job.

In government universities there was a significant result for work life balance for marital status, where unmarried faculty was able to maintain higher work life balance. As observed for private universities, faculty holding Ph.D. degree in government universities were more satisfied and committed. Therefore encouraging faculty for Ph.D. would ensure higher satisfaction and commitment. Also satisfaction with predictors, job satisfaction and commitment varied significantly with the designations faculty held. Further, engineering faculty experienced higher work life balance, support from their supervisor and satisfaction with their work. Whereas management faculty felt that they were recognized more than engineering faculty. Contrary to private universities, faculty in government universities who had an experience of 30-35 years in teaching were more satisfied and committed. On similar observations, permanent faculty was more satisfied as compared to temporary faculty and faculty drawing higher salaries was more committed as compared to others.

There were again significant interactions where gender played a very important role. This would signify that gender is a very determining demographic factor while assessing satisfaction with various aspects of a job.

Hypothesis 4 suggested that there is a positive and significant relationship between job satisfaction and affective commitment. This hypothesis was supported. The output confirms that there exists a significant positive relationship between job satisfaction and affective commitment *(r=0.431, p<.05); p=0.00*.

For objective 5, prediction of variables leading to job satisfaction identified the predictors that lead to higher job satisfaction among faculty in private and government universities. The results of this study suggest that support from supervisor, support from administrator, salary and promotions were the most determining factors for job satisfaction.

5.3 CONCLUSIONS

This study has tested empirically the satisfaction of faculty with the predictors of job satisfaction

and affective commitment. Demographic variables such as gender, age, marital status, university type, education, academic rank, discipline, job tenure (number of years in teaching), position tenure (number of years in the current position), living status, employment and income have been studied and their interaction effects have also been studied. This study gives an overall view of how faculty feels towards different aspects of their job and the predictors that are the most determining in job satisfaction.

5.4 IMPLICATIONS OF THE STUDY

Satisfied employees tend to be more productive and more committed towards their organizations. The results of this study suggest that support from supervisor, support from administrator, salary and promotions were the most determining factors for job satisfaction. By increasing faculty's job satisfaction on these parameters, higher commitment can be achieved. University authorities can consider these predictions for their decision making in increasing the level of satisfaction of their faculty in government and private universities.

5.5 LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

1. Data collected from south, west and east zones was negligible due to the constraint of distance and was therefore not considered for analysis.
2. The analysis also suffers from small sample size, which could be increased by collecting data from other universities of India.
3. Literature depicting the relationship between Job Satisfaction and Affective Commitment in academics is scarce.
4. Every university has their own policies and procedures. Therefore there may be some variation in the responses collected.
5. The study can be extended to individual universities and conducting the study in accordance to their policies.

6. Individual parameters can be studied in detail for individual universities.
7. Data was collected from faculty from North of India. Sample from the other parts of India may be taken to further investigate job satisfaction, affective commitment and the relationship between them.

LIST OF PUBLICATIONS

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1. Aggarwal, N. & Medury, Y. (2012). Job Satisfaction among Faculty: An Approach to Study the Intention to Leave or Stay in the University. *Voice of Research. 1* (3), 38-41.
2. Aggarwal, N. & Medury, Y. (2013). Compensation satisfaction: A Case in Academics. *Shodh Sanchayan. 4 (2),*1-4

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1. Aggarwal,N. & Medury,Y. (2013). Job Satisfaction among Faculty: A Case of Private Engineering Colleges in India. National Conference on Paradigm for Sustainable Business: People, Planet and Profit. Indian Institute of Technology-Roorkee, 8-9 March, 2013. (Abstract- ISBN : 978-93-81583-94-4)

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APPENDIX A

LETTER OF INTRODUCTION AND QUESTIONNAIRE

Dear Sir/Madam,

I am Neha Aggarwal, pursuing PhD. I am conducting a survey for Engineering and Management faculty. The information provided will be used for academic purposes only.

About this survey:

- This research aims to develop a detailed understanding of factors leading to the job satisfaction and organizational commitment of university teachers.
- The survey will not take more than **10 minutes.**
- All the responses will be treated as **anonymous** and handled with high confidentiality.

I would be grateful to you if you participate in the survey.

Thank You

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PART A - Personal Particulars

Age				
Gender	Male		Female	
University Type	Private		Government	
Employment	Permanent		Temporary	
Education	Graduate	Post Graduate	Ph.D.	Others
Current Position				
Courses Teaching	Engineering	Management	Others	
Area of Specialization				
Teaching Experience	_____Years		_____Months	
How long have you held your current position?	_____Years		_____Months	
Annual Income (Including Benefits) in Rs.	_____Lakh		_____Thousand	
Marital Status	Single	Married	Others	
Do you reside inside the campus?	Yes		No	
Email Address				

PART B

Keeping in view your opportunities for promotion and current salary, how well do the following sentences describe your level of satisfaction?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am satisfied with the opportunities for promotion in this university					
I am satisfied with the university's promotion policy					
Promotion makes me feel satisfied and motivated towards my work					
I have a better opportunity of career advancement outside this university (R)					
My salary is in balance with the amount of work I do					
The amount of salary I get is fair and competitive as compared to other similar Universities					
I am satisfied with the other benefits I get in addition to my salary					
I am satisfied with the pay I receive at this University					
The total benefits program is better than at most other Universities					

Comments

Please indicate the satisfaction with Work Life Balance (WLB) provided by your university.

Work-Life Balance is an initiative aimed at encouraging flexible working arrangements for employees to achieve a better balance between the demands of paid employment and those arising from their private life.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Incorporating WLB policies ensures higher satisfaction					
I am able to balance my work and personal life					
I have the time to reach my personal and career goals satisfactorily					
University policies that promote WLB can be unfair to people like me (R)					
University provides me the option to work flexibly					

Comments

Indicate your satisfaction with supervisor/HOD and satisfaction with administration.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Administration considers my advice important in decision making					
My HOD takes interest in my work (teaching / research)					

My HOD contributes in enhancing my work					
My HOD gives me fair reviews about my performance					
Administration takes care of the needs of the faculty					
Administration acknowledges my work					
I have enough freedom in my position to take independent action when needed					
My HOD acknowledges my work					
My HOD's has active involvement in my career development					
Administration understands the problems faculty faces on jobs and provides appropriate support					

Comments

Indicate your satisfaction with your work and recognition at work.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I find teaching and research challenging					
Working with this university gives me a sense of accomplishment					
I give a great deal of time and attention to the university, but do not feel appreciated$^{(R)}$					
The rewards I receive are not proportional to my efforts$^{(R)}$					
I feel unfairly treated in my job$^{(R)}$					

I find my job satisfactory when I can give my talents and expertise to my job					
I find my job satisfactory when I can be reasonably compensated for my job					
It would be more important to me to have intrinsic rewards (meaningful work, sense of achievement, personal worth etc.) than tangible rewards (pay, benefits, job security)					
I am provided full support and opportunities for research work					
I am encouraged to take initiatives at work					
My research work and teaching is given equal importance and recognition					
I have the opportunity for consultancy arrangements/ other alternative opportunities					

Comments

Keeping in view your attitude towards your organization, how does each of the following sentences describe your current situation?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I would be very happy to spend the rest of my career in teaching					
I enjoy discussing my profession and university with people outside it					
I really feel as if this university's problems are my own					

I do not feel emotionally attached to my profession(R)					
I do not feel a strong sense of belonging to my *university*(R)					
I do not feel a strong sense of belonging to my *profession*(R)					

Comments

APPENDIX B

ORGANIZATIONAL COMMITMENT QUESTIONNAIRE DEVELOPMENT

Allen and Meyer (1996) developed measurement scales for organizational commitment which consisted of 24 items measuring the three components of commitment (eight items for each) and had acceptable internal consistency (i.e. cronbach alpha coefficient) for each dimension as follows: Affective Commitment Scales (ACS) $\alpha = 0.87$; Continuance Commitment Scales (CCS) $\alpha = 0.75$; and Normative Commitment Scales (NCS) $\alpha = 0.79$. Although Allen and Meyer's in 1990 item commitment scales have been used extensively, concerns were raised about the high correlations between affective and normative commitment with some researchers questioning the logic of retaining normative commitment as a separate scale .In an attempt to clarify the distinction between affective and normative commitment, Meyer et al., in 1993 revised all the three scales resulting in the reduction of the scale items from eight to six items per dimension.

However, despite this revision, Meyer *et al*. (2002) found that the correlations between affective and normative commitment in the original 8-items ($p = .54$) and the revised six-item scales ($p12 = .77$) were still considerably high. Since the development of the multidimensional commitment by Allen and Meyer (1990), various studies in American and other Western contexts have been carried out using the three-dimensional organizational commitment measures .Some researchers have suggested that this development is likely to bring to an end the disappointing and inconsistent results often reported in organizational commitment research (Allen & Meyer, 1996; Brown, 1996; Suliman & Iles, 2000).