The recent proliferation in the interest of researchers and scholars in the ERBs has contributed vast literature in the domain of Organizational Citizenship Behavior (OCB). The chapter has four sections. The OCB conceptualization and its dimensions identified by several scholars (e.g. Bateman & Organ, 1983; Smith, Organ, & Near, 1983; Organ, 1988; Williams & Anderson, 1991; Moorman & Blakely, 1995; Van Scotter & Motowidlo, 1996) is presented in the first section. The second section embodied a detailed survey on the relationship of OCB with the antecedents selected for the present study which are organizational commitment (OC), occupational role stress (ORS), and job satisfaction (JS). The third section focuses on the studies those have investigated OCB, OC, JS, ORS in context of Information Technology (IT) Industry. Figure 2.1 presents the whole structure of the coverage of OCB literature through different sections and subsections organized in this chapter. At the end of the chapter the identified literature gap has been discussed and review of literature is also summarized.

2.1 Heritage of Organizational Citizenship Behavior

The term Organizational Citizenship Behavior (OCB) was first used by Organ and his colleagues (Bateman and Organ, 1983; Smith, Organ, & Near, 1983). Therefore the proliferations of research on OCB- conceptualization, dimensions, scale development, antecedents and consequences had begun in the early 1980s.

2.1.1 Conceptual Development

Bateman and Organ (1983) operationalized OCB as the “lubricator of the organization’s social machinery” but the behavior is not mandatory because it do not comprise task performances.
Heritage of Organizational Citizenship Behavior

Conceptualization Development

Dimensionality

Measurement

Content

OCB & OC

OCB & JS

OCB & ORS

OCB, OC, JS & ORS

OC, JS & ORS

Context

Service Industry

Manufacturing Industry

Methodology

Explorative

Descriptive

Case

Conceptual

Analytical

Related Studies in context of IT Industry

OCB among IT Professionals

OC among IT Professionals

JS among IT Professionals

ORS among IT Professionals

Relationship and Impact

Figure 2.1: Organization of Literature Review

Note: OCB-Organizational Citizenship Behavior, OC-Organizational Commitment, ORS- Occupational Role Stress and JS- Job Satisfaction
Examples of such behavior are: helping co-workers with a job related problem; tolerating temporary impositions without complaint; making timely and constructive statements about the work unit or its head to outsiders. They conceptualized OCB as unidimensional construct. Furthermore, Smith, Organ, and Near (1983) explained that the behaviors do not have the same motivational bases as for the performance of formal job. Moreover, the behaviors are not governed by individual incentive schemes because of subtleness and difficulty in measurement. However, the consistent engagement in such behaviors affect subjective appraisal of officials.

After five years Organ (1988) conceptualized OCB more comprehensively and concretely. Organ defines OCB as discretionary behavior, not accounted to reward formally and benefit the organization by increasing its effectiveness. He highlighted the criticality of citizenship behaviors for the effective organizational functioning. Organ (1990) added OCB included “behavior that a person refrains from doing, even though he or she has every right to do so, such as frequently finding fault with other employees, expressing resentment, complaining about insignificant matters, and starting arguments with others”. Schnake (1991) propounded a more concise definition of OCB, “functional, extra-role, pro-social organizational behavior, directed at individuals, groups, and/or an organization” (p.738). He further explained that these behaviors do not account for reward and punishment and cautioned to exclude noncompliant and dysfunctional prosocial behaviors.

Graham (1991) has given a broad conceptualization of OCB which includes all positive behaviors by a member relevant to his organization. These behaviors may include “traditional in-role behaviors, organizationally functional extra-role behaviors (envisioned as OCB by former researchers), and political behaviors, such as full and responsible participation”. The political behavior akin to civic citizenship comprises all community-relevant positive behaviors of an individual citizen.
Motowidlo (2000) noticed an overlapping between two construct OCB and contextual performance (CP) operationalized by Borman and Motowidlo (1993). Both constructs incorporated almost similar pattern of behavior. Therefore, Organ (1997) revised the term OCB as the “contributions to the maintenance and enhancement of the social and psychological context that supports task performance” (Organ, 1997, p. 91). The refinement in OCB definition was influenced by the concept of contextual performance which focuses on nontask performance aspect rather than discretionary and non-rewarded performance.

In summary, the heritage of conceptual development of OCB in the past two decades enlightens the specifications of such behaviors and their relevancy for the organizations. However, many scholars have noted the domain of conceptual development and refinement is still open. For example, Turnipseed and Wilson (2009) asserted that initial conceptualization of OCB seems lacking relevancy due to organizational evolution which constitutes individualized jobs, team-based work structure, emerging organizational designs. Moreover, managers develop into coaches and serving as facilitator rather than order givers. Such working circumstances may require going beyond formal descriptions such as cooperation, individual initiative and loyalty among the workers. Thus the organizational evolution mandates reexamination of OCB and suggests migration of OCB to required behaviors.

2.1.2 Dimensionality

Podsakoff, MacKenzie, Paine, and Bachrach (2000) have done rigorous examination of literature and reveal almost 30 potential dimensions of Organizational Citizenship Behavior (OCB)/Contextual Performance (CP). Conceptual overlapping is found among the identified forms of citizenship behavior. Thus, Podsakoff et al. arranged these forms into seven general dimensions: “(1) Helping Behavior, (2) Sportsmanship, (3) Organizational Loyalty, (4) Organizational Compliance, (5) Individual Initiative, (6) Civic Virtue, and (7) Self Development”.
Helping behavior refers to volitional act of helping other members of the organization. For example: altruism, peacemaking, cheerleading, Organizational Citizenship Behavior towards Individual and interpersonal helping. It also includes helping coworkers by preventing the creation of problems. This concept has been represented by the courtesy dimension of OCB.

Sportsmanship, another dimension of OCB has paucity of studies those have given attention to it. Organ (1988) referred sportsmanship as “a willingness to tolerate less than ideal circumstances and refrain yourself from complaining”.

Organizational Loyalty consists of behaviors promoting organization to outsiders and protecting it from external threats. Employees are expected to not to leave organization even in adverse situations do not intent to leave organization. The different construct proposed by researchers such as “loyal boosterism, spreading goodwill and protecting the organization, and the endorsing, supporting, and defending organizational objectives” entailed by this category.

Generalized Compliance has underpinned by many researchers to operationalize and measure OCB. It refers to acceptance and conformity to rules, regulations, and procedures of an organization; even when employees are not monitored and observed. The different nomenclatures that scholars used for generalized compliance are organizational obedience, Organizational Citizenship Behavior towards Organization.

Individual initiative includes voluntary behavior that inhere creativity and innovation to improve organizational performance. Moreover, it also consists of enthusiastic efforts to achieve job targets and initiatives to take responsibilities beyond the formally prescribed roles. The similar constructs are conscientiousness (going beyond what minimally required), personal industry (going beyond the call of duty).
Civic Virtue, this dimension addresses responsibilities of employees as citizens of the organization. These responsibilities comprises willingness to organize and participate in functions and meetings at the organization, take actions to serve the interest of the organization in the best manner, and ready to cope with changing environment and subsequent threats and opportunity.

At last, self development refers to behaviors oriented to improve knowledge, skills, and abilities to serve organizational goals with the wide range of contribution.

The all explored dimensions of OCB proposed by different scholars (Graham, 1989; 1991; Organ, 1988; Smith, Organ, & Near, 1983) entail to the above explained seven broad themes of OCB. Appendix A summed up the all operationalized dimensions of OCB respective to the theme they belong.

2.1.3 Measurement

Several researchers have developed variety of validated measurement scale for OCB. The review of these measurement scales is captured by Appendix B. The table discusses the conceptualization of OCB used to develop the scale, its dimensions, and other psychometric properties such as no. of items, reliability and validity.

2.2 Antecedents of Organizational Citizenship Behavior

Through an extensive review of literature, it has been identified that the antecedents of OCB have been studied under five main categories. These are: Organizational Characteristics (George & Bettenhausen, 1990; Podsakoff et al., 2000; Somech & Ron, 2007), Group Characteristics (Organ, Podsakoff, & MacKenzie, 2006), Individual Characteristics (Cartwright & Cooper, 1997; Chattopadhyay, 1999; Konovsky & Organ, 1996; Moorman, Neihoff, & Organ, 1993; Organ & Ryan, 1995; Schaubroeck & Fink, 1998; Williams and Anderson, 1991), Task Characteristics (Peng & Chiu, 2010) and Contextual Factors (Karambayya, 1990;
Konovsky & Organ, 1996). The current study focuses on the attitudinal antecedents of OCB these are organizational commitment and job satisfaction and an important psychological state that is; occupational role stress. The selected factors fall in the individual characteristics category.

A detailed review of the studies on the selected antecedents of the study that is “organizational commitment, job satisfaction and occupational role stress” was conducted and that is discussed in this section. Several scholars (Bateman & Organ, 1993; Cohen, 2007; Van Dyne & Pierce 2004; Eatough, Chang, Miloslavic, & Johnson, 2011; Mackenzie, Podsakoff & Ahearne, 1998; Moorman & Harland, 2002; O’Reilly & Chatman, 1986; Organ & Konovsky, 1989; Stephens & Sommer, 1995; Williams & Anderson, 1991) have empirically tested the relationship of job satisfaction (JS), occupational role stress (ORS), and organizational commitment (OC) with OCB. The results and implications of their researches are explicated in the following four subsections.

2.2.1 Organizational Commitment (OC) and Organizational Citizenship Behavior (OCB)

The relationship between both constructs that is organizational commitment with OCB has received great deal of attention by many researchers. As employees who feel internalized and psychologically attached to the organization would perform well for their assigned roles and attendance, avoid lateness and willing to stay with the organization (Mathieu & Zajac, 1990). Apart from performing in-role behaviors effectively the employee may also exhibit extra-role behaviors to improve the organizational functioning. The empirical evidences for the organizational commitment- OCB relationship are presented below:

Chaitanya and Tripathi (2001) investigated the influence of organizational citizenship behavior on the organizational performance as it brings devotion and commitment to the work among the members of the organization. 100 scientific officers of a public sector organization were surveyed. The significant positive association between OCB and OC was found. Altruism
and sportsmanship significantly predicted Organizational Commitment. Results brought new insight in the light that the committed employees are expected to exhibit citizenship behavior at the same time OCB helps to promote commitment among employees.

**Kwantes (2003)** explored the relationship between three components of organizational commitment- affective, continuance and normative commitment and four dimensions of organizational citizenship behavior. Two samples of manufacturing companies i.e. one from India and another one from the USA has been used for data collection. Results reveal that affective commitment is the only dimension of commitment which has significant relationship with OCB in the American sample. In the Indian sample, however, all components of organizational commitment found differentially linked to all four components of OCB. Study concluded that the explored relationship might not have similar pattern in different settings.

**Cohen (2007)** studied the relationship between OC and organizational citizenship behavior on five groups represented five different cultures. Respondents were teachers and principals of schools operated in or for the main cultural groups in Israel. Results indicated a consistent relationship between organizational commitment and three factors of OCB: “altruism, conscientiousness, and civic virtue”. Study concluded that these linkages depend on culture, thus advised to consider cultural group of the sample for future researches.

**Cohen and Keren (2008)** examined the association between organizational commitment and organizational citizenship behaviors. A survey was administered on the secular Israeli teachers. Results show that AC is related to altruism and civic virtue while CC is negatively related to altruism. Paradoxical outcome generated by the study is that normative commitment is unrelated to any dimension of OCBs. Thus, study concludes that organizational commitment is an important determinant of workplace behaviors.
Srivastava (2008) asserted that encouraging extra role behavior at workplace results in improved organizational performance. Through the support of extent literature author advocated a positive link between organizational citizenship behavior and organizational excellence. It is suggested to augment OCB among employees to derive organizational excellence. The study has proposed a model which shows organizational commitment as one of the robust antecedent of OCB. The highly committed employees are more expected to exert extra efforts willingly for the wellbeing of the organization even when their expectations from the organization are not fulfilled. Thus, it is suggested that inducement of organizational commitment is necessary as it plays vital role in creation of OCB and this will strengthen its indirect link to the organizational performance.

Yimlaz and Cokluk-Bokeoglu (2008) studied the relationship of organizational citizenship behavior to organizational commitment among the teachers of Turkish primary schools. Though, the results found positive significant relationships between OCB and organization commitment and its two components affective and continuance commitment but the relationships are not strong enough. Based on findings it is suggested that commitment level of education employees should be increased as to increase the OCB level.

Lavelle et al. (2009) tested the target similarity effects in which the relationship between organizational commitment and organizational citizenship behaviors tended to be stronger if they referred to the same target instead of different targets. Employees who are layoff survivors of a medical clinic in the United States were drawn as sample. Results indicate that commitment to workgroup more strongly predicts OCBI than OCBO and commitment to organization more strongly predicts OCBO than OCBI. Findings suggest that both construct OCBI and OCBO have unique predictors. Thus, the results verify the theory of target similarity model.
Noor (2009) examined OCB as the outcome of OC. The research was conducted among university teachers in Pakistan through questionnaire. Results are consistent with the literature as organizational commitment and OCB are found strongly correlated. Regression analysis has displayed significant impact of organizational commitment on OCB. It is suggested to develop OCB need to enhance commitment of teachers towards the university.

Liu and Cohen (2010) investigated the explanatory power of commitment dimensions to two forms of OCBs: OCB-altruism and OCB-organization. Group of employees working in a public organization located in northern China, was drawn as sample of the study. Results reveal that out of three components only continuance commitment is found positively related and able to explain significant variance in altruism form of OCBs. The reasoning given for this confounding finding is the difference in western culture and Chinese culture. In china, being employed is enough to develop commitment towards organization due to the high cost linked with exiting present organization. On the other hand in western societies along with the job, terms of employment are equally important to develop exchange based commitment.

Bakshi, Sharma and Kumar (2011) explored the linkages between the three component model of organizational commitment as developed by Allen and Meyer (1991) and organizational citizenship behavior. Participants were employees who were working in National Hydroelectric Power Corporation Ltd., India. Findings indicate that the three types of OC which are affective, normative and continuance commitment are positively associated to OCB but only normative commitment significantly impacts OCB. It is concluded that results are partially consistent with the existing literature.

Chang, Tsai and Tsai (2011) proposed that OC positively influence OCB. Managers and Staffs are drawn as sample from 12 companies of Taiwan. To test the proposition Structure Equation Modeling Technique is used. Results are found consistent with the previous researches as organizational commitment positively influences organizational citizenship behavior. Based
on results it is concluded that employees with high organizational commitment tend to perform high quality of organizational citizenship behaviors.

Cohen and Liu (2011) gauged the explanatory power of organizational commitment to organizational citizenship behavior. Participants were secular Israeli school teachers. Study took this specific group of participants to control the effect of culture. Results indicate that the components of organizational commitment are significantly related to OCB except Continuance component and only affective commitment has significant explanatory power to OCB. Based on the findings authors argued that affective component is more valid and useful dimension of organizational commitment than others.

Ueda (2011) posited that affective organizational commitment have an effect on OCB. To test the hypothesis data was collected from professors and clerical workers in a private Japanese university. Results show positive association of AC with all forms of OCB. The influence of affective organizational commitment is significant on all form of OCB except on civic virtue.

Benjamin (2012) investigated the affective commitment as a determinant of organizational citizenship behavior. The sample was selected from the eight Nigerian post-consolidation era commercial banks were selected as sample. Results enlighten that AC significantly impact citizenship behavior by employees of banks. Results suggest that developing affecting commitment among the bank employees would facilitate the utilization of intrapreneurial potentials of organization’s members which are the critical success aspect for the banks and enable them to contribute at their maximum.

Davoudi (2012) conducted a study on a group of employees belonged to Iran Insurance Industry to study the relationship between three components of organizational commitment and OCB. Results show significant correlation of affective and normative commitment with OCB
while relationship between CC and OCB found insignificant. The results implied that to improve the level of OCB managers are required to create that work context where employees are either affectively or normatively committed.

Mohamed and Anisa (2012) analyzed the impact of OC on OCB in a telecommunication organization. 299 employees were covered in a survey carried out for the study. Partial Least Squares to Structural Equation Modeling (SEM) is employed to test the propositions. Findings noticed that the three components of OC are significantly associated to OCB. But, effect of affective commitment on OCB is found insignificant while the effect of continuance and normative commitment is significant. Results are quite contradictory to prior researches in case of effect of affective and continuance commitment on OCB.

Mukhtar, Sial, Imran and Jilani (2012) tested a proposition that organizational commitment has significant relationship with organizational citizenship behavior. Employees of non-government organizations in Pakistan were drawn as sample. Results indicated that organizational commitment is positively linked to OCB. Since the impact of organizational commitment is found significant, it is contended as robust prognostic of OCB. Study concluded that employees go beyond their formal role only when they are highly committed towards their organization.

Yang (2012) discussed the contribution of organizational commitment to organizational citizenship behaviors in service context. Data was collected from contact employees in Taiwan’s restaurant. The use of structural equation modeling technique presents significant path directed to OCB from organizational commitment. Thus, study concluded that the organizational commitment entails OCBs and exhibited to reciprocate the benefits employees receive from the organization which forms employee-organization exchange relationship.
Ucanok and Karabati (2013) analyzed the three components of OC: affective commitment, normative commitment and continuance commitment as antecedents of OCB. A survey was accompanied to measure organizational commitment and OCB among employees of SME enterprises in Turkish. Results found affective and normative commitment as significant predictor of OCB on the other hand continuance commitment found insignificant relationship with OCB. Thus, it is concluded that affectively and normatively-committed employees will be more inclined towards OCB to bolster overall organizational functioning on the other hand continuance commitment developed only due to cost of leaving organization, it would not increase OCBs.

On the basis of above review, assertion that OC is a rigorous precursor of OCB would not be wrong. However, the different facets of organizational commitment differ in their association with OCB. The review implies that majority of studies have used three dimensional model of OC which is comprised of “affective, normative and continuance commitment”. AC is found strongest prognostic of OCB while for normative commitment mixed results are found. The relationship of continuance commitment with OCB is found either insignificant or negative. This suggests OCB is the outcome of employees’ attachment, involvement and identification with the organization. Employees who remain with organization just due to lack of availability of other alternative would not tend to engage in citizenship behavior. Additionally it is also seen that the cultural values may also affect the organizational commitment-OCB relationship. The results of several studies imply that efforts should be administered to encourage commitment among employees towards organization to increase OCB level. However, literature also contains some of the studies (Williams & Anderson, 1991; Huang, You, Tsai, 2009) that do not found OC as significant correlate of OCB.
2.2.2 Job Satisfaction and Organizational Citizenship Behavior

The controversial issue on the relationship between job satisfaction and task performance has drawn researchers’ attention on the relationship of job satisfaction with OCB. The satisfaction-performance proposition has been found unsupported by previous studies (Brayfield & Crockett, 1955; Vroom, 1964, Iaffaldano & Muchinsky, 1985). Bateman and Organ (1983) and Organ (1977) cautioned that the probable reason for such non-conformity may be the use of wrong measure of performance. They further elaborate that the performance of task is the function of abilities and skills of the employees. On the other side, taking social exchange theory as foundation it has been asserted that prosocial behaviors are exhibited by the employees to reciprocate the favors they receive from the organization (Organ, 1988; Organ & Konovsky, 1989, Smith et al.). Thus, OCB fits more logically in the measure of performance that is to be tested for the relationship with job satisfaction. The first study searched the determinants of OCB was held by Smith, et al. (1983) and they found JS as the strongest predictor of OCB. Many more evidences, found in literature in support of job satisfaction-OCB relationship are detailed below:

Bateman and Organ (1983) emphasized the typical notion that “satisfaction cause performance” which is regarded as naive folk wisdom as do not have empirical support. They suggested to use other conceptions of performance rather than traditionally defined measures such as quantity and quality of output. The measure of performance used in the study is ‘citizenship behavior’. 77 employees and supervisors were surveyed at two separate times in a major Midwestern State University. Citizenship behavior is reported by the immediate superior of each employee and employees reported their level of satisfaction from all components of job such as work, promotion, pay, coworkers, and supervision. Findings of the study highlight significant positive relationship between JS and OCB. The conceptual basis given in support of findings are first, to reciprocate the favors or benefits provided by organization, citizenship performances are presumably more preferable by employees as they are not constrained by technical skills and abilities required to produce greater work output and creative solutions.
Second base has been derived from the contention that gestures of citizenship behavior are most likely to occur out of positive mood affect. Results confounded by the insignificant causality between both variables and some of the limitations of the study were marked as possible explanation for this.

**Smith, Organ and Near (1983)** inquired about the characteristics and precursors of citizenship behavior by using 220 employees and 202 supervisors from two banks. Based on factor analysis, it has been contended that there is atleast two distinct classes of citizenship behavior Altruism and Generalized Compliance. The exploration of social psychological literature suggested that characteristic of mood state influences probability of prosocial behaviors. Job satisfaction has been used as a measure of chronic mood state in the study which has direct prediction impact on altruism. The impact on generalized compliance is found insignificant. Implications of the study lie in understanding the significance of citizenship gestures those lubricate the organization’s societal context and in the identification of motivational basis for the citizenship behavior which cannot be those that induce people to join, stay and perform with in contractual settings as it is beyond formal role prescriptions.

**Puffer (1987)** tested the relationship between an employee’s prosocial organizational behavior and his satisfaction with pay and security material rewards. The Self-awareness theory (Duval and Wicklund, 1972) postulates this relationship as it proposed that the preoccupation with “insecurity about one’s personal situation impedes one’s ability to focus on and react to external situations”. State of satisfaction with material rewards facilitates prosocial behavior. Survey of 141 salespeople worked in California retail furniture Chain stores was conducted. Results found that prosocial behavior is positively related to satisfaction with material rewards and regression analysis found that latter is vigorous predictor of former. The results support the self awareness theory which suggested that the reduced preoccupation with feeling of insecurity and dissatisfaction motivates prosocial behavior as a response to external situations.
Organ and Konovsky (1989) compared the importance of subjective appraisal of one’s job (Cognitive) and mood states (Affective) in predicting organizational citizenship behavior. Sample was drawn out of employees working in two privately owned hospitals. Results reveal that OCB (rated by supervisor) is more uniquely explained by cognitive appraisal of one’s job specifically in terms of pay than by temporal mood states. Thus, the findings construed OCB as calculative and controlled gestures rather than mere dispositions. Moreover, fairness in rewards and OCB linkage has been interpreted based on the framework of social exchange (Blau, 1964).

Farh, Podsakoff and Organ (1990) argued that the high correlation between organizational citizenship behavior and job satisfaction held by conventional wisdom is due to common correlates of OCB and satisfaction such as leader fairness and task characteristics. Based on the above argument, authors examined whether job satisfaction explains unique variance beyond the explanatory power of the leader fairness and task characteristics to OCB or not. Employees of Ministry of Communication in Taiwan were constituted as sample of the study. Responses were collected from total of 195 employees and their supervisors who reported for OCB exhibited by their subordinates. Findings enlighten that supervisory satisfaction and work satisfaction facets of job satisfaction do not explain uniquely in both dimensions of OCB; altruism and generalized compliance, once leader fairness and task characteristics get controlled. Hence, results support the argument made by the authors and reflect that OCB and job satisfaction correlated because of the common effect of their causal variables.

Schnake (1991) proposed a model of citizenship behavior at the workplace which delineates the determinants of OCB into four categories and one of them is job satisfaction. The model also represents the hypothesized causal relationships based on results of previous researches (e.g. Bateman & Organ, 1983; Puffer, 1987; Motowidlo, 1984; Smith et al., 1983). It is suggested to use the measure of job satisfaction which taps only affective components because cognitive component is reflected by perceived equity which is used as another antecedent in the proposed model. The hypothesized model proposes the causal link from job
satisfaction (affect) to altruistic citizenship behavior evident by the several studies relating mood to helping behavior. Author suggested cross-sectional and longitudinal research to test and identify the hypothesized correlation of OCB.

Moorman (1993) postulated that the association of job satisfaction to organizational citizenship behavior may get influenced by satisfaction measurement tool used, due to its dual orientation one is ‘cognition’ and another one is ‘affect’. Based on this fact, it was proposed that job satisfaction measure that is influenced by relatively high cognition measures will have stronger relationship with OCB than the job satisfaction measure influenced by comparatively high affect measures. Minnesota Satisfaction Questionnaire (MSQ) used which was found more cognition oriented than affect (Brief & Roberson, 1987) and the Brayfield-Rothe’s measurement instrument was used to measure satisfaction as it is more affect oriented than cognition (Williams, 1988). Responses were collected from the employees working in two medium-sized manufacturing organizations on the job satisfaction scale and by supervisors to rate citizenship behavior exhibited by sample employees. Results support the formulated hypothesis. MSQ Extrinsic (cognitions) is found stronger to account unique variance in OCB dimensions beyond affect than variance explained by affect in OCB dimensions beyond cognition. Study concludes that OCBs get influenced by cognitive evaluation of job conditions rather than from the ‘good mood’, last for very short time.

Organ and Lingl (1995) noted that there are some factors one of them being personality which underlies in both JS and OCB that stems correlation among them. Based on above postulation, authors examined whether job satisfaction is able to contribute uniquely in the variance accounted in OCB. Results reveal the significant unique variance accounted by job satisfaction in altruism but not in compliance. However, one of the facets of job satisfaction i.e. co-worker satisfaction accounted significant variance in compliance but the reliability of results was constrained by the small size of sample undertaken in the study.
Schnake, Cochran and Dumler (1995) hypothesized that job satisfaction would not be able to explain variance in OCB beyond the explanatory power of leader behaviors and perceived equity. Results were drawn using responses of 10 supervisors on scale of OCB in the form of rating for each employee’s engagement in OCB and 136 employees of a small manufacturing firm, to rate their satisfaction level and for other variables used for the study. Test of hypothesis has reported mix support for the proposition because out of five dimensions of job satisfaction only two have explained significant variance in OCB above the variance accounted by leader behaviors and perceived equity. The findings contradict the previous studies which posited that job satisfaction is the reflection of leaders’ behavior and perceived equity by the employee.

Netemeyer, Boles, Mckee and McMurrian (1997) investigated the predictor of OCBs in personal selling context. The authors postulated that the relations between predictors and OCBs could be specific to selling situation, thus, conducted research in two different selling contexts in which respective requirements are different. One is cellular phone company, selling messaging services to business and individual persons and in which low ticket item is sold on a transaction basis in a comparatively short period of time, constituted Study 1. The other one included salespeople from real estate company in which a high-ticket item is sold and relationship can develop between buyer and seller over a longer period of time, constituted Study 2. For study 1 response of 91 salespeople and 182 salespeople’s responses were collected on the self report scale for OCBs and JS. The results reported that JS has crucial role as a predictor of OCBs as it had significant direct relationship with OCB in both studies. However the act of job satisfaction as mediator could be specific to certain selling situations and for certain variables because mediation effect of job satisfaction found in study 2 but not in study 1. Study is implied for the sales managers to understand the role of job satisfaction as predictor of OCBs which induce the cooperative and supportive social machineries through helping behavior among salespersons and that lead to long term well being of the organization and increase in customer satisfaction through superior services.
**Koys (2001)** carried out a longitudinal research, investigated the influence of positive behaviors on business performance or vice-versa. The cross-lagged correlation analysis taken by the study helps to understand the causality link between employee satisfaction and OCB. The data was collected from hourly employees and managers of regional restaurant chain. The results reveal that employee satisfaction for year 1 was not significantly correlated with OCB for year 2, while employee satisfaction for year 2 was found to significantly correlate with OCB for year 1. The findings show the reciprocal link between employee satisfaction and OCB, where latter causes former. The study presents a new insight in respect to causality link between both variables. The link from employee satisfaction to OCB has widely supported by literature but the reciprocal link relatively less explored.

**Lee and Allen (2002)** investigated the role of job affect and cognitions in predicting organizational citizenship behavior. Data were collected from registered nurses and their coworkers in Ontario, Canada. It was found that job affect predicts OCB directed to individuals (OCBI) more strongly than job cognitions, on the other hand job cognitions is found more strongly associated to OCB directed to organization (OCBO) than job affect. Thus, OCBO can be considered as deliberate behavior and not just an expressive gesture of emotions. Similarly, OCBI can be considered as the Outcome of emotional dispositions. Study suggests that discrete emotions (e.g., anger, fear, joy) should also be given relevant importance as some negative emotions were found able to explain OCBI beyond the negative affect.

**Lapierre and Hackett (2007)** conducted a meta-analysis to explore the relationship between job satisfaction and organizational citizenship behavior. Using Meta-analytic structural equation modeling results were drawn which indicate that job satisfaction is able to explain significant variance in OCBs. It is concluded that satisfaction among employees with their job cultivates OCBs prompted by the willingness to establish social exchange relations with supervisors.
The above review concludes that the job satisfaction is the composite of two components: Cognitions and affect. The both components have respective empirical evidences for their relationship with OCB. But, the conventional wisdom suggests that the employees’ cognitive appraisal of job conditions strongly predict OCB than their ephemeral mood states. Thus, the empirical results in support of job satisfaction-OCB linkage depend on the measure of job satisfaction used. It has been found that most of the job satisfaction measures are dominated by cognitive component. Additionally, some studies those have disconfirmed this relationship are Chen, Hui, and Sego, (1998); Feather and Rauter (2004); Mogotsi, Boon and Fletcher (2011); Randall, Cropanzano, Bormann, and Birjulin (1999); Sani (2013); Schappe (1998).

2.2.3 Occupational Role Stress and Organizational Citizenship Behavior

With the motive to improve job performance of the employees, the factors affect it are always remain in consideration of the practitioners and researchers. The notion that occupational stress deteriorates the employees’ performance adjunct to their in-roles has verified sufficiently (Gilboa, Shirom, Fried, & Cooper, 2008; Jackson & Schuler, 1985; Tubre & Collins, 2000). Jex (1998) asserted that role stressors such as role ambiguity, role overload and role conflict as key antecedents of employee behavior at workplace. Thus, the examination of role stressors on extra-role behaviors can also be an area of scholars’ interest. But, the survey of literature confounded as the few empirical evidences for role stressors-OCB relationship are found in literature, some of them are presented below:

**Stephens and Sommer (1995)** explored the direct and indirect effect of work-family conflict on OCB. Participants were selected from three service organizations: a hospital, a state government agency, and a scientific testing company. Results indicate insignificant direct influence of work-family conflict on OCB but the indirect impact through perceived social support and work group climate was found significant. Thus, it is inferred that when employees experiencing work-family conflict then understanding, cooperation, and support from the side of
supervisor and coworkers activates positive extra-role performances to establish sound exchange relationship.

**Boerner, Dutschke and Wied (2008)** determined the effect of stressors such as heavy work load on organizational citizenship behavior among hospital nurses from three German hospitals. Results of regression analysis indicate insignificant effect of stressors on OCB. As these results do not confirm the findings of the prior studies and possible reason given by the authors is the limited selection of stressors. The inclusion of other different stressors relevant in the hospital settings (e.g. shift-working, role ambiguity or role conflict, death of patients) has been suggested for future research.

**Fox, Spector, Goh, Bruursema and Kessler (2012)** argued that the strong negative correlation between OCB and it antecedents may cause due to three measurement artefacts: use of items measuring absence of counterproductive work behavior rather than citizenship behaviors, supervisory biasness, and asking for agreement level rather than frequency rate. Positive relationship was found between stressors and OCB when a new OCB scale, the OCB-Checklist (free from artifacts) was used. Results supported by the fact that the behavior is a complex interplay between situation and person. Thus, an individual may act positively such as long working hours and performing additional task to cope with the exceeding demands at work.

**Golparvar, Kamkar, and Javadian (2012)** studied the link among job stress and organizational citizenship behavior. A survey of employees working in two industrial organizations in Esfahan, Iran was employed. The findings are congruent with empirical evidences found in literature as job stress is significantly negatively related to OCB. But, the effect of job stress on OCB is found insignificant. Study concluded that job stress interrupts the emotional and behavioral stability of employees and this inhibits them to demonstrate OCB.
Jain and Cooper (2012) examined the significance of the direct path from organizational stress to organizational citizenship behaviors (OCBs). Operators from Business Process Outsourcing (BPO) organizations located in northern India were constituted as sample. Findings reflect significant negative linkage among organizational stress and OCB. Study reported 9% variance accounted by stress in OCBs and found stress as a significant predictor of OCBs. Results are supported by the fact that, OCBs are discretionary behavior thus employees would be reluctant to get involved in OCBs to reduce their stress level and to perform well in their in-role behaviors to maintain their organizational membership.

Literature has reported mix results for the different occupational stressors (e.g. role overload, role ambiguity, role conflict, work-family conflict, work-family culture, control). Employees experiencing negative emotions are less likely to cooperate at workplace (Carlson, Charlin, & Miller, 1988). Support for negative relationship between stressors and OCB are more in number than positive relationship. Researchers suggested that behavior is a complex system. Thus, response to job stress can be employee specific. On one hand, an employee can refrain himself from engaging in OCB due to incapability to cope with in-role demands on the other hand one can also use it as a source of motivation to meet all demands at workplace to get over from the adverse state.

2.2.4 Job Satisfaction, Organizational Commitment, Occupational Role Stress and Organizational Citizenship Behavior

This subsection takes into account the reporting of results found in literature when any two or all three selected antecedents of the OCB were studied together. Several researches have focused on the study of job attitude-OCB relationship, where job satisfaction and organizational commitment have received high considerations among other job attitudes (LePine, Erez, & Jhonson, 2002; Nguni, Sleeers, & Denessen, 2006; Podsakoff, MacKenzie, & Bommer, 1996; Randall, Cropanzano, Bormann & Birjulin, 1999). Exploring the impact on OCB taking all three or any two selected antecedents together may change the results which have been observed in
case of inclusion of single predictor in the study. Each predictor may play the role of mediator or moderator for the relationship of OCB with another predictor(s) as these three antecedents included in the current study are intercorrelated.

**Williams and Anderson (1991)** empirically examined the variance explained by JS and OC in the performance of OCBs. 461 employees of various organizations responded on scales of affective and cognitive job satisfaction and organizational commitment. The performance was rated by 127 supervisors. The results of Correlation and Regression analysis provide evidence that positive arousal and cognitive facets of job satisfaction are significantly related to OCB towards individual. The linkage of the facets of job satisfaction is also significant with OCB towards organization. Organizational commitment is found unrelated to all forms of OCB not able to produce any significant variance in OCB. Moreover, Only cognitive components found significant predictors of OCB and differentially related to both form OCBI and OCBO. Intrinsic component of cognitive job satisfaction is significant predictor of OCBI and OCBO is significantly predicted by extrinsic component of job satisfaction. This differential pattern also supports the found results that both forms of OCB are different as they have different antecedents.

**Organ and Ryan (1995)** investigated the correlation of two main job attitudes, job satisfaction and commitment with Organizational Citizenship Behavior through quantitative review of 55 studies. The results of meta-analysis enlighten that “job satisfaction and organizational commitment are vigorous predictors of OCB”. The details of the relationship showed that JS is significantly linked with aggregate measure and all dimensions (altruism, generalized compliance, sportsmanship, civic virtue and courtesy) of OCB while organizational commitment was found significantly correlated only with altruism, generalized compliance and aggregate measure of OCB. Separate analysis for affective commitment and continuance commitment were conducted which resulted in strong correlation of affective commitment with altruism and generalized compliance but continuance commitment was not found correlated to
any dimension. The meta-analysis identified a most notable moderator of these correlations and that is self-report ratings of OCB which is associated with higher correlations.

Cropanzano, Howes, Grandey, and Toth (1997) revealed that job satisfaction is insignificantly correlated to OCB-altruism and OCB-Compliance. Same results were found for the links between organizational commitment and two forms of OCB. These findings were found on the group of employees working in manufacturing organization. The study 2 was conducted on the group of part-time employed undergraduate students. The findings of study 2 reported that JS and OC are correlated significantly to positive work behaviors although the correlation was weak. Thus, the difference in the results of study 1 and study 2 was caused may be due to different measurement tool used to measure job satisfaction and OCB and/or different samples.

Tompson and Werner (1997) hypothesized the direct and indirect (mediated by job satisfaction and organizational commitment) relationship between inter-role conflict and organizational citizenship behaviors. Sample of the study was group of MBA students. Results revealed significant direct link among inter-role conflict and OCBs. Inter-role conflict significantly impacts on job satisfaction and also on organizational commitment. Moreover, when both job satisfaction and Organizational commitment entered together in regression equation only commitment was found as significant predictor of OCBs. Commitment also found significant mediator for the relationship of inter-role conflict to loyalty dimension of OCBs only. Findings indicate when employees face inter-role conflict this attenuates their commitment which in turn shows disloyal behaviors. Study suggests managers to develop altruistic workplace environment which will help to avoid conflict between work/non-work roles.

Mackenzie, Podsakoff and Ahearne (1998) explored the linkage between job attitudes and OCB among the sales agents of the national insurance company. The SEM analysis has reported significant positive linkages among job attitudes and OCB. Indirect relationship
between role perceptions (role ambiguity and conflict) and organizational commitment is also found which is partially mediated by job satisfaction. Findings are consistent with the view of Organ (1988) that job attitudes serve as a motivational base for the performance of OCB. Authors suggested longitudinal study in future for more accurate causal inferences.

Schappe (1998) studied the relative contributions of three variables procedural justice (PJ), JS and OC in predicting OCB. Author cautioned that JS and OC were found highly correlated in the literature, so it would be appropriate to consider both variables together to examine their comparative impact on OCB. Data were collected from 130 employees working in insurance company and Hierarchical Regression Analysis was used. Results found significant relationship of organizational commitment with OCB and JS. The relationship between JS and OCB appeared anomaly as it is found insignificant. Findings reveal that only organizational commitment which was entered after job satisfaction in the regression equation is the significant predictor of OCB as it accounted unique variance in OCB while job satisfaction not. However, the findings are contrary to previous research in respect of job satisfaction. Author has explicated some of the limitations of the study such as reliance on self-report measure of OCB, shorter measurement scale as the possible reasons for the confounding findings.

Cohen and Vigoda (2000) portrayed a theoretical link between JS, OC and OCB. Study was conducted on the group of employees of a major public health organization in Israel. The results of statistical testing of the proposed theoretical link reveal that JS is a considerable prognostic of altruism dimension of OCB but a insignificant predictor of Compliance. Findings pertaining to organizational commitment and OCB link are found very confounding. Organizational commitment had strong negative impact on OCB Compliance and weak albeit significant negative impact on OCB Altruism. Another important finding shows a strong causal linkage between job satisfaction and organizational commitment. Study concluded that the findings are specific to Israel culture. Thus, replication of the study is suggested in other cultural settings for the validation of results.
Moorman and Harland (2002) pointed out that the changing global scenario (in terms of economy, technologies and workforce diversity) prompted businesses to develop the ability to cope with it through imbibing myriad flexibility. This upheaval draws focus on employing more temporary employees in a workforce in order to respond to changing business environment. Yet, they are less expected on the ground of commitment and high performance than permanent employees. In the context of this paradoxical employment relationship results found that commitment of temporary employees to staffing agency and to client organization is highly correlated to their organizational citizenship performances. However, results are insignificant in case of their satisfaction to staffing agency although both commitment and satisfaction were found highly correlated. Hence, it is suggested that the inducement of commitment and performance of temporary employees is dependent on the actions exhibited not only by client organization but also by staffing agency to promote citizenship behaviors and other job attitudes related to commitment and performance. Indeed findings suggest that at those positions which provide opportunity to temporary employees to gain important experience and useful skills, are more likely to perform OCBs instead of at full time position, part time position and desire for money.

Feather and Rauter (2004) investigated the link between organizational citizenship behavior and job status (Permanent versus Contract). Also, determined whether the job status of employees influence the association between OCB, organizational commitment and job satisfaction. Study used permanent and temporary teachers from Victorian Public School as sample for the study. It is evidenced by the results that contract teachers exhibited greater frequency of OCB when compared with the permanently employed teachers. The finding is supported by the fact that contract teachers undertake OCB to get permanently employed in reciprocation. The only association which is found significant is between OCB and affective organizational commitment for permanently employed teachers. Directions for future research induce the motivational analysis of OCB based on expectancy-value theory (Feather, 1982) by integrating expectations, goal structure and perceived value of outcomes of OCB.
VanDyne and Pierce (2004) gauged the variance explained by OC and JS in OCB. Participants were 227 professional employees. For these employees data is collected from their peers and supervisor. Results highlight that by entering organizational commitment and job satisfaction together in regression equation the impact of job satisfaction on OCB is found insignificant (for both supervisor and peer assessment of citizenship).

Bragger, Rodriguez-srednicki, Kutcher, Indovino and Rosner (2005) examined work-family culture, work-family conflict, organizational commitment and job satisfaction as antecedents of organizational citizenship behavior. Data was collected from teachers. Pearson correlation analysis shows that all proposed antecedents are positively related to OCB except work-family conflict. Hierachal regression analysis indicates that the selected four variables are able to account significant variance in OCB. Study concluded that if an employee feels conflict between his/her roles at work and family, he/she will be less likely to engage in OCBs. Further, findings suggest that organizations should encourage those programs which ameliorate the level of work-family conflict.

Foote and Tang (2008) proposed that employee commitment towards its self-directed team moderate the Job Satisfaction - organizational citizenship behavior relationship. Sample was drawn from full-time employees working in international organization’s manufacturing plants. Results assert that among high level team committed employees the job satisfaction-OCB relationship is significant but among low team committed employees the relationship is found insignificant. Findings indicate that even if employee is satisfied from the organization but unable to develop commitment towards his team is less expected to utilize his team’s social capital that geared social exchanges among team members, so as to perform OCBs.

Lambert, Hogan and Griffin (2008) identified the research gap in the literature that is the lack of research attempts for the exploration of the consequences of job attitudes (such as job stress, job involvement, job satisfaction and organizational commitment) of correctional
employees. The organizational citizenship behavior is proposed as one of the potential outcomes of job attitudes of correctional employees. To test the relationship 160 correctional employees of Midwestern correctional facility have been surveyed. Results reveal the significant positive impact of organizational commitment on OCB and also show that job stress has significant negative impact on OCB. However, the impact size of organizational commitment is almost twice the impact size of job stress. Thus, it has been suggested that employees who identified themselves and involved with their organization are likely to exhibit positive work behavior that increase organization’s efficiency on the other hand stress causes discomfort at workplace and result in several negative consequences. But due to substantial impact of organizational commitment than job stress, commitment plays more vital role in managing and fostering OCB performances among correctional staff.

Tang (2008) studied the correlations among work stress, job satisfaction, organization commitment and OCB among employees taking further education in one of Technical Institutes in Taipei city Taiwan. Correlations among all variables were found significant and positive except between job satisfaction and work stress due to role conflict.

Kutcher, Bragger, Rodriguez-Srednicki and Masco (2010) found strong positive association among OC, JS and OCB. The sample comprised of employees employed atleast on the part-time basis. The findings also indicate that OC and JS are able to explain significant variance in OCB. Thus, based on results it has been asserted that both organizational commitment and job satisfaction are robust prognostics of the OCB.

Zeinabadi (2010) explored the causal linkages between job satisfaction, organizational commitment and organizational citizenship behaviors (OCBs). Participants were teachers and principals of primary schools in the selected district of Tehran. Results are drawn using structural equation modeling to introduce a best fit model predicting teachers’ OCBs. Model that found best fit depicts direct significant path from value commitment to OCBs and from
intrinsic job satisfaction to value commitment. Intrinsic job satisfaction found both direct and indirect relationship to OCBs, where indirect relationship is partially mediated by value commitment. It is concluded that results are congruent with the *attitude-intention-behavior* relation model as findings indicate that JS is a positive appraisal of work environment, OC is it subsequent emotional response which results in coping behaviors such as OCBs.

**Eatough, Chang, Miloslavic, and Johnson (2011)** analyzed and estimated the relationship between role stressors (role ambiguity, conflict, and overload) and OCB. The meta-analysis used previous researches to examine these relationships. Findings indicate that the selected role stressors except role overload are significant negative predictors of OCB and the relationships are mediated by job satisfaction. Moreover, role overload is found directly associated to OCB which proves that employees may boost their motivation to reduce work overload by meeting all the demands at the workplace.

**Mogotsi, Boon and Fletcher (2011)** studied the correlation among JS, OC and OCB on the teachers’ group in secondary schools in Botswana. Responses were collected from 283 teachers and results are drawn using correlation and regression analysis. Findings indicate that organizational citizenship behavior, job satisfaction and organizational commitment are significant correlates of each other but only organizational commitment was found robust predictor of OCB. Results are opposed to conventional wisdom as job satisfaction is not found significant predictor of OCB. Moderation effect of other variables over the correlation between JS and OCB is the probable reason given by authors for such confounding results.

**Golparvar and Javadian (2012)** hypothesized a structural model which shows the tentative indirect effect of job satisfaction and organizational commitment on organizational citizenship behavior where job stress is playing a role of a moderator. Participants were the employees who were working in an organization located in Shahrekord, Iran. The interrelationships and indirect effect of JS and OC on OCBs is found significant. Job stress is
found negatively associated with OCBs. A new direct link between job satisfaction and OCB had been found after testing of model.

Huang, You and Tsai (2012) tested whether the organizational commitment and job satisfaction are robust precursors of OCB or not. Respondents were hospital nurses of Taiwan. The study is multidimensional and results reveal that job satisfaction and organizational commitment are significant prognostics of OCB. Multidimensional analysis shows that only affective component of organizational commitment has significant impact on OCBO and out of all five facets of job satisfaction, satisfaction with coworkers has significant impact on OCBI. It has been suggested that to increase the display of OCB among hospital nurses, efforts should be taken to increase affective commitment among them.

Sesen and Basim (2012) proposed meditational path analytic model which explains the tentative mediation effect of organizational commitment on the job satisfaction-organizational citizenship behaviors relationship. Study was conducted on the group of high school teachers in Turkey. Findings indicate that the JS and OC significantly influence the OCB-I and OCB-O. The impact is found positive. Moreover, Organizational commitment fully mediates the JS and OCB-O relationship, and partially mediates the linkage of JS with OCB-I. The confirmation of hypothesized mediation model proved that organizational commitment is inherent in job satisfaction construct. Study suggests to school principals to encourage that environment such that school can have satisfied and committed teachers who shall perform OCBs.

Jain, Giga, and Cooper (2013) evaluated the significance of relationship between organizational commitment, role stressors, job satisfaction and OCBs. The participants of the study were employees working at operator level in call centers. The data analysis shows significant correlation among these constructs. The negative association among 1 stress and OCB interpreted from organizational membership maintenance perspective. When the situations
are highly demanding at work then employees tend to put less effort in voluntary behavior and preserve their energy to be productive in the role formally assigned to them.

This review also verifies that organizational commitment, job satisfaction and job stress vigorously predict the citizenship gestures of the members of the organization. In addition to this, literature (Van Dyne & Pierce, 2004; Golparvar & Javadian, 2012; Schaubroeck & Ganster, 1991; Sesen & Basim, 2012; Zeinabadi, 2010) indicates that organizational commitment significantly mediates the relationship between job satisfaction and OCB either partially or fully. Organizational commitment is a more inclusive construct as it is based on the positive assessment of the organization by the employee while job satisfaction is specific to positively appraised different job facets. Thus, the explored mediation follows the Bagozzi’s (1992) "attitude-intention-behavior relation model". The model proposes that behavior is the function of appraisal of situations and the resulted emotional responses. Job satisfaction assesses the different facets of job (e.g. pay, supervisory and coworker relationships, growth) and positive appraisal develops organization commitment. Attitudes are reflected in behaviors and committed employees are supposed to demonstrate citizenship behaviors (Bolger & Somech, 2004; Felfe, Yan, & Six, 2008; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; O'driscoll, Pierce, & Coghlan, 2006; Shore, Barksdale, & Shore, 1995). Some of the evidences in support of the notion that the stress is indirectly correlated to citizenship behaviors are also found which is mediated by job satisfaction and organizational commitment. High intercorrelation between the mediators presented in the study also revealed.

2.2.5 Organizational Commitment, Job Satisfaction, and Occupational Role Stress

Job satisfaction is identifies as a component of organization commitment (Kovach, 1977). Mowday, Porter, & Steers (1982) stated that both constructs can be seen different in many ways. Organizational commitment is a positive emotional response towards the organization and job satisfaction is the positive cognitive appraisal of all the facets of job rather of the whole organization. However, several researches (Brooke, Russell, & Price, 1988;
Freund, 2005; Lin, 2003; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Porter, Steers, Mowday, & Boulian, 1974; Williams & Hazer, 1986) have contained empirical evidence for predication of organizational commitment by job satisfaction. Shin and Reyes (1995) suggested that to develop commitment for education and mission of their own school among teachers, school administration must make efforts to increase their level of satisfaction. Ting (2011) validated the positive influence of JS on OC through computing parameter of influence ($\beta=.48$) on the group of elementary school teachers. Study suggested that school management must exert those activities or programs that promote job satisfaction of teachers and this would ameliorate their commitment to school. A study conducted on the middle level managers working in private sector organizations concluded that job satisfaction causes organizational commitment and explained 26.6% variance (Srivastava, 2013). It indicates that job satisfaction has substantial influence on organizational commitment.

This causality has empirically evident by many researches (Nagar, 2012; Wang & O’Reilly III, 2010; Yoon & Thye; 2002). But, the causal link between the two construct is found a debatable issue. Bateman and Strassers (1984) argued that commitment predicts job satisfaction. However, the replication of Bateman and Strassers’ (1984) study by Curry, Wakefield, Price, and Mueller (1986) on the employees of hospital nursing department, disapprove the results. They argued that no causality can be established between commitment and satisfaction. Curry et al., (1986) cautioned that the contradiction in results may be appeared due to use of different instrument to measure variables.

Research efforts have also been devoted to the exploration of the factors that promote or impede organizational commitment and satisfaction of employees from job circumstances. Stress has been seen as most common predictor that deteriorates the level of commitment and satisfaction among employees. Employees who experience stress due to inability to cope with the demands at the workplace are surrounded by negative emotions such as anxiety and tension (Jackson & Schuler, 1985) that attenuate their satisfaction and commitment to the job and
organization. Lapierre et al., (2008) drawn sample of managers across five countries and found work-life conflict reduces job satisfaction. Fairbrother and Warn (2002) provided controllability as theoretical base for the negative relationship between job satisfaction and stress. Control over the demand and expectations at workplace induces relaxation on the other hand unfulfilled demand and expectation cause negative emotions and employee feels dissatisfied at workplace. Similarly, Fox, Dwyer, and Ganster (1993) have stated that in a hospital settings nurses would experience lower level of job satisfaction in case of lower control over job demand and vice-versa. Literature has consistently reported inverse relationship between job satisfaction and job stress (Beehr, Walsh, & Taber, 1976; Kim, Murrmann & Lee, 2009; Lehal, 2007; Lu, Shiau, & Cooper, 1997; Richardsen & Burke, 1991). But, the literature search has found one study by Yoon and Thye (2002) with exceptional results which reported weak albeit positive association between workload and job satisfaction. They posited that high work load and challenging tasks assignments increases employees morale to contribute. They get satisfied when their competence gets recognized. Therefore, stressors can be evaluated as hindrance or challenge by employees (Gilboa et al., 2008).

The organizational commitment and job stress negative relationship has also been supported by conventional wisdom (Nart & Batur, 2014; Mathieu & Zajac, 1990; Srivastava, 2008). However, out of “three dimensions of organizational commitment (affective, normative and continuance)” affective dimension is the one that has been found most often related to job stressors (Khatibi, Asadi & Hamidi, 2009; Yousef, 2002). Commitment has also been found significant moderator of role stressors whereby employees who are highly committed perceive lower stress at job (Begley & Cazjka, 1993; Cohen, 1992, 1993; Mathieu & Zajac, 1990; Mowday, Porter, & Steers, 1982; Siu, 2002; Somers, 1995).

Direct link between organizational commitment and role stressors has been found insignificant when job satisfaction was entered into the equation. This implies an indirect linkage between organizational commitment and job stressors also exists which is mediated by
job satisfaction. Gaertner (1999) contended that workload, role ambiguity, and role conflict have indirect effect on organizational commitment through job satisfaction based on a meta-analysis. This implies that the mentioned role stressors are not able to explain variance in commitment above and beyond the job satisfaction. Similarly, Firth, Mellor, Moore, and Loquet (2004) found that the mediation by job satisfaction in the relationship of stress with job commitment makes the direct relationship between two constructs insignificant, in a study on the group of salespeople. Anton (2009) has argued that role ambiguity and role conflict do not affect organizational commitment of the employees directly. Study on the group of 261 Spanish bluecollar workers has suggested that the role stressors affect affective commitment indirectly through job satisfaction. It has been concluded that stress deteriorates the satisfaction of employees and inclined them to leave organization. Therefore, it can be inferred that negative affects caused by job stressors like work overload, role ambiguity, conflict in roles, control and others buffer a state of displeasure or dissatisfaction that hinders the development of commitment towards organization.

2.3 Organizational Citizenship Behavior and its Determinants in Information Technology (IT) Industry Context

Researchers’ have drawn close attention to the biggest and most persistent HR challenge for the IT Industry i.e. Employee Turnover. Adams et al., (2006) claimed turnover in IT industry as chronic problem. The problem appears to be more pertinent when labor market becomes constrained for IT graduates, early retirements from IT workforce and increasing complexity in underlying and creative use of IT (Hecker 2005). This arise demand not only for skilled IT professionals also for problem solving and customer service oriented experts. To cope with complexity employees need to spend long working hours and perform expanded organizational roles due to broad project with narrow deadlines. This translated into several negative consequences such as increased employee turnover (Joseph, Ng, Koh, & Ang, 2007; Moore, 2000).
The potential antecedents of IT professionals’ turnover are Organizational citizenship behavior (Newton, Blanton, & Will, 2008; Newton & Nowak, 2013; Pare and Tremblay, 2007), organizational commitment (Calisir, Gumussoy & Iskin, 2011; 1994; Joseph et al., 2007; Pare and Tremblay, 2007; Thatcher, Stepina, & Boyle, 2002) job satisfaction (Beecham, Baddoo, Hall, Robinson, & Sharp, 2008; Calisir, Gumussoy & Iskin, 2011; Joseph et al., 2007; Lee, 2000; Rutner, Hardgrave, & McKnight, 2008) and occupational role stress (Trafafdar, Tu, Raghu-Nathan, & Raghu-Nathan, 2007; Messersmith, 2007; Moore, 2000)

Moore and Love (2005) shared the findings of a dissertation, compared the level of organizational citizenship behavior across different job classifications. Data were collected from the employees working in five firms of five different industries. It is found that the level of OCB among employees in computer information system and IT job classification is significantly lower than the level of OCB reported for employees in other domain of these firms such as operations, accounting and finance. IT jobs are autonomous and the role of supervision is very less thus the low interaction and communication impede supervisory trust and fairness perceptions (both are strong precursors of OCB) due to unawareness to perspectives of both parties. Study suggests to IT manager to encourage OCB and build relationship based on trust that would also entails fairness perception. Similarly, Bhatnagar and Sandhu (2005) stressed that managers who are psychologically empowered to their organization are tend to engage in organizational citizenship behavior. Indian IT managers’ response based results reveal that IT managers exhibit moderate level of OCB and high level of psychological empowerment with their organization and both are found positively correlated. The high level of OCB and psychological empowerment show their intent to stay with the organization as the constructs are manifested as Talent Retention Tool. IT human resource specialists are suggested to widen the psychological empowerment practices that will be an impetus for high level of OCB.
Newton, Blanton, and Will (2008) posited that level of fulfillment of IT Professionals’ psychological contract affects their citizenship and innovative behaviors at workplace. Results were drawn based on the responses of IT professionals collected through online survey. Results indicate that the nature of influence is positive. Study concluded that when IT professionals perceive fulfillment of promised obligations, they feel united to the organization and perform innovative and citizenship behaviors. Pare and Tremblay (2007) studied a group of “Quebec members of the Canadian Information Processing Society (CIPS) who represent wide variety of IT jobs and Organizational settings”. Authors posited that organizational commitment and organizational citizenship behaviors- helping behavior do play significant role in reducing turnover intentions of highly skilled professionals. Findings also ensure a strong positive linkage between affective commitment and OCB-helping behaviors. Thus, it shows that the psychological attachment of IT Professionals to their organization engenders a desire inside them to perform beyond their formal role for the effective functioning of the organization. Chou, Jiang, klein, and Chou (2011) propounded that a good quality of leader-member exchange (LMX) induces organizational citizenship behavior. Study was conducted on the group of IS Professionals in Taiwan. Results indicate that LMX is a vital contributor to organizational commitment which further positively influences OCB. Findings suggest that effective communication and coordination between leader and member is an essential ingredient for good quality of LMX. Newton and Nowak (2013) discussed the factors that moderate the relationship between fulfillment of IT professionals’ psychological contract and innovative and organizational citizenship behavior. Sample comprised of IT professionals across US who responded to a web-based survey. Findings identify that along with some other factors OC and JS are also important moderators of the prescribed relationship. Thus, results are construed in a manner that higher the level of commitment and/or satisfaction among IT professionals stronger will be the relationship between fulfillment of psychological contract and work behaviors.
Ang and Slaughter (2001) diagnosed the differences in the work attitude, behavior and performance across permanent and contractor Information System (IS) professionals. The permanent and Contract IS professionals who worked together in teams were selected from a Software Development Division of a large transportation company. Findings reported that contract IS professionals however, perceive their work environment more favorably than permanent IS professionals but contrary to expectations, they are low in their in-role and extra-role behaviors. Supervisors perceive contract IS professionals as low performer, disloyal, less obedient and trust-worthy. Through second study which included in-depth interviews, job-design identified as an important factor that creates difference in work outcomes of permanent versus contract IS professionals. The results imply to the software development team leaders and suggest to embrace careful and balanced job design for contract IS professionals to get improved work outcomes.

Patrick (2012) gauged the level of commitment among IT employees working in top 10 IT organizations of Bangalore. The analysis of collected data shows that the level of commitment of IT employees is moderately high. This indicates that IT employees are highly internalized to their organization and feel bounded due to their positive attitude towards it. Zolbanin & Sarathy (2014) asserted that to retain IT professionals their satisfaction from job play a role. Managerial factors such as managerial competence and effective utilization of technical skills noted as precursors of job satisfaction for IT professionals. Long working hours creates conflict between work and family for IT professionals (Messersmith, 2007). Some mitigating strategies are suggested such as family-friendly policies, socialization tactics, merging nonwork and worktime and high-involvement work practices. Trafdar, Tu, B. S. Raghu-Nathan, and T. S. Raghu-Nathan (2007) examined the impact of technostress on role stress and individual productivity. Results found that technostress is inversely related to individual productivity and positively related to role stress such as role overload and role conflict. Based on findings implications for managers and practitioners have also given. First, they can diagnose the presence of technostress among the employees based on the factors that
cause it. Second the use of appropriate mechanism and strategies would help to attenuate the techostress and can offset its adverse effect on productivity and organizational role stress.

Moore (2000) addressed the staffing problems such as retention of talented technology employees and optimization of their work performance. The author postulated work exhaustion as a powerful factor influence job attitudes such as job satisfaction, organizational commitment and turnover intentions. IT professionals who were members of the Association for Information Technology Professionals (AITP, formerly known as DPMA) were drawn as participants for the study. Findings reveal that work overload is the most substantial factor out of all contributes to work exhaustion in technology workers and primary source of it is lack of staff and resources as reported by workers. Moreover, IT professionals who were experiencing high work exhaustion and perceived unfairness of rewards were intended to leave their job. Study suggests the implementation of appropriate strategies to reduce work exhaustion to retain talented IT professionals. Moreover, Calisir et al., (2011) found that intent to quit job is directly and negatively predicted by OC, JS and ORS. Additionally, role ambiguity affects the intention to leave the organization of IT employees through job satisfaction. Job satisfaction is able to explain significant variance in organizational commitment and significantly explained by role ambiguity and job stress. However, conflict in roles, role overload and work-family conflict found insignificant predictor of job satisfaction. Thus, stress factor is identified as a vital factor need to managed by IT managers through flexible working hours, virtual work settings, and clarity of job responsibilities. This subsequently manages the level of satisfaction and commitment and so as of intent to quit job among IT professionals.

Thus, the addressed factors OCB, organizational commitment, job satisfaction and occupational stress are noticed as vigorous antecedents of IT professionals’ turnover intentions in the literature. Managing each respective to their effect on turnover intension could help IT industry to overcome this chronic problem and moved to enhanced productivity and efficiency.
2.4 Literature Gap

The phenomenon Organizational citizenship behavior is addressed by, mostly, American Scholars (Croppanzano et. al., 1997; Graham, 1991; Kutcher et. al., 2010; LePine et al., 2002; Organ, 1988; 1990; Podsakoff et al., 2000; Turnipseed & Wilson, 2009). Therefore, most of the examination of OCB constrained to the context of the United States (Lam, Hui, & Law, 1999). Paucity of studies on OCB in Indian context urges the research efforts to validate notions suggested by American scholars with respect to conceptualizations, dimensions, predictors and outcomes.

In order to identify determinants of OCB the most common factors examined as antecedents of OCB are JS and OC. But the factors affecting these predictors must be included to gauge the explanatory power of job satisfaction and organizational commitment to OCB by controlling the factors affecting these determinants. This would help to understand whether the factors have direct or indirect impact on OCB. The consideration to such factors may also help to support the findings with respect to organizational commitment and job satisfaction- OCB relationship.

The current research addresses two literature gaps. In general, researchers have not been drawn much attention to the OCB research in IT Industry. Therefore, the current study is in Indian context, on the Information Technology (IT) professionals. Second, Job stress as determinant of OCB has also not been taken into much consideration by the researchers. It is the common predictor of organizational commitment (Nart & Batur, 2014; Mathieu & Zajac, 1990; Meyer et al., 2002; Srivastava, 2008) and job satisfaction (Beehr, Walsh, & Taber, 1976; Kim, Murrmann & Lee, 2009; Lehal, 2007; Lu, Shiau, & Cooper, 1997; Richardsen & Burke, 1991). Thus, study on impact of organizational commitment and job satisfaction on OCB in presence of their highly correlated variable, occupational role stress would help to understand more clearly the status of these three variables as predictors of OCB.
2.5 Literature Summary

The studies those support the relationship and impact of overall OC, JS and ORS on overall OCB are captured by the Table 2.1. The results for the relationship between the variables were interpreted from the correlation coefficients (r) reported by the studies and impact of independent on dependent variable was interpreted from the regression coefficients (β). The table also displays the studies which do not support these relationships and impact. From the visual inspection of table it can be identify that majority of the previous research has evident the relationship between job satisfaction and OCB and also its impact on OCB. However, some researchers have reported insignificant relationship between these variables. The link from organizational commitment to OCB has also gain enough support from past studies but few evidences have also found which discard this relationship. Research on occupational role stress and OCB are found in low numbers but many of them have supported the negative relationship between the two variables.

The summary of each study that has been reviewed in the current study is shown in Appendix C. the summary enlighten that most of the studies are survey based which are descriptive in nature. However many researchers have put their efforts in the meta-analysis, explorative and conceptual studies. The scope of the reviewed studies comprises either service industry like insurance, hospitality, schools, universities, banks and correctional or manufacturing industry. Majority of studies are conducted in context of service sector in which educational sector that are schools and universities, is found dominant. The population captured by the studies is the employees and their respective supervisor working in the selected organization.

Thus, the summary of the literature review helps to understand and support the hypothesized relationships of the current study. The summary has also included the relationships and impacts for the dimensions to dimensions of the constructs as many of the previous research had accompanied this. This helps to explore more about the relationship between the constructs. It can be posited that the proposed relationships are found significant in the past research which were majorly in the service sector context.
Table 2.1: Summary of Results Reported by Previous Studies

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Organizational Commitment (OC)</th>
<th>Job Satisfaction (JS)</th>
<th>Occupational Role Stress (ORS)</th>
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<td>Relationship Impact</td>
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<td><strong>Organizational Citizenship Behavior (OCB)</strong></td>
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<td>Significant</td>
<td>Schappe (1998); Foote and Tang (2008), Mackenzie, Podsakoff and Ahearne (1998); Lambert, Hogan and Griffin (2008), Van Dyne and Pierce (2004); Chang, Tsai and Tsai (2011); Bragger et al. (2005); Yang (2012); Zeinabadi (2010); Tompson and Werner (1997); Golparvar and Javadian (2012)</td>
<td>Murphy, Athanasou, &amp; King (2002); Organ and Ryan (1995); Bateman and Organ (1983); Netemeyer, Boles, Mckee and McMurrain (1997); Mogotsi, Boon and Fletcher (2011); Tang (2008); Foote and Tang (2008), Mackenzie, Podsakoff and Ahearne (1998); Bragger et al. (2005); Lapiere and Hackett (2007); Golparvar and Javadian (2012); Kutcher, Bragger, Rodriguez-Srednicki and Masco (2010)</td>
<td>Lambert, Hogan and Griffin (2008), Golparvar, Kamkar, and Javadian (2012); Golparvar and Javadian (2012); Jain, Giga, and Cooper (2013); (+)Fox, Spector, Goh, Bruursema and Kessler (2012)</td>
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