IMPACT OF POSITIVE PSYCHOLOGICAL CAPITAL ON WORK ATTITUDES, INTENTIONS, AND BEHAVIORS AMONG UNIVERSITY TEACHERS

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Allah—The Almighty is the only and solo laudable of all praises and eulogies that can be couched for His majesty in any parlance, that can be thought about by virtue of the pinnacles of human imagination to delineate the essence of adoration as His glorified and magnificent Being is the singular meritorious of all the virtues that are even beyond man's fantasy. It is only the benediction of the All-knowing Being to bestow upon us His Holy Prophet (PBUH)—the ultimate human manifestation of His absolute knowledge, who spawned all fields of erudition and will remain the provenance of all wisdom that is to emerge in future. The accomplishment of this research dissertation is solely my Lord's beneficences and blessings upon me.

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ABSTRACT

The present research was conducted to develop and empirically test an integrated model of positive organizational behavior among university teachers of Pakistan. More specifically, this study sought to explore the impact of positive psychological capital and perceived authentic leadership on positive work behaviors (including in-role performance, organizational citizenship behavior, and job related affective wellbeing) as well as undesirable work outcomes (counterproductive work behaviors and burnout). Grounded in the theoretical framework of theory of planned behavior (Azjen, 1991), it also examined the mediational role of psychological ownership and work engagement between psychological capital and the aforementioned work behaviors and outcomes. Furthermore, it integrated Job-Demands Resources Model (JD-R Model; Bakker, Demerouti, De Boer, & Schaufeli, 2003) into the framework of positive organizational behavior and assessed the moderating role of job autonomy, social support (job resources) and quantitative overload (job demand) in the relationship of psychological capital with work engagement, psychological ownership, and various aforementioned work related behaviors.

This research comprised of two studies. In study I, a series of focus group discussions were conducted to develop an in-depth understanding of psychological capital, work engagement, authentic leadership, and psychological ownership among university teachers of Pakistan. The findings of these focus group discussions revealed that the western operationalizations of these positive constructs accurately measured them in our indigenous occupational settings of university teachers. Salient job resources and job demands in profession of university teaching were identified through a second series of focus group discussions with university teachers of different universities of the Punjab province. The results suggested that job autonomy and social support were the most valued job resources whereas increasing quantitative overload was the most hazardous job demands for Pakistani university teachers. The measurement instruments of the present study were adapted to the occupational settings of university teaching through committee approach and expert opinion and a pilot study was conducted on a convenient sample of 100 university teachers to assess

the psychometric properties of measurement protocol and an the identification of initial pattern of relationships among various constructs of the study. PsyCap Questionnaire (PCQ; Luthans, Avolio, Avey, & Norman, 2006), Authentic Leadership Questionnaire (ALQ; Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008), Psychological Ownership Questionnaire (POQ; Avey, Avolio, Crossley, & Luthans, 2009), Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003), In-Role Performance Scale (William & Anderson, 1991), Organizational Citizenship Behavior Scale (William & Anderson, 1991), Organizational Deviance Scale (Bennett & Robinson, 2000), Maslach Burnout Inventory-Educator Survey (MBI-ES; Maslach, Jackson, & Leiter, 1996), Job Related Affective Wellbeing Scale (JAWS; Katwyk, Fox, Spector, & Kelloway, 2000), Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), Quantitative Overload Subscale of Role Overload Scale (Dekker & Barling, 1995), Job Autonomy, Supervisor Support, and Co-worker Support Subscales of Job Content Questionnaire (Karasek, 1985) were used to measure their corresponding constructs. The results revealed satisfactory indices of psychometric soundness in terms of reliability and factorial structure of measurement instruments and a pattern of relationships in the expected direction.

Study II constituted the main study of this research through which the proposed model of this investigation was tested. A convenient sample of 500 university teachers from the provinces of Punjab and KPK and the capital area was recruited. A minimum job experience of 1 year at an HEC recognized university and 16 years of formal education was the inclusion criteria for the participants. Structured equation modeling was undertaken through AMOS-20 for testing the proposed model. Results revealed that psychological capital was positively related to perceived authentic leadership, organizational citizenship behavior, in-role performance, and job related affective wellbeing and negatively associated with counterproductive work behaviors and burnout. Psychological capital explained a unique variance in these work outcomes while personal dispositions of positive and negative affectivity were controlled. Psychological ownership and work engagement mediated the relationship of psychological capital with the aforementioned work related outcomes in a serial fashion. Preventative psychological ownership was positively related to burnout and

this relationship was mediated by job demands whereas promotive psychological ownership was positively related to work engagement and job resources mediated this relationship. Quantitative overload moderated between psychological capital and psychological ownership; between psychological capital and job related affective wellbeing; between work engagement and in-role performance; and between authentic leadership and burnout. Job resources moderated the relationship work engagement and burnout; between psychological ownership and job related affective wellbeing; between work engagement and job related affective wellbeing; between authentic leadership and OCB; and between authentic leadership and work engagement. Multivariate analysis of variance of demographics of university teachers did not demonstrate significant main effects, however, certain 2-way and 3-way interactions were observed in relation to various constructs such as psychological capital, psychological ownership, job autonomy, OCB, and burnout. Implications of the study for university teachers of Pakistan and suggestion for future research have been discussed.

Chapter I

INTRODUCTION

Universities play a pivotal role in the development of any nation as per their capacity of spawning highly educated youth with refined values and pragmatic outlook towards life. These seats of highest learning are the hatching nurseries for the development of innovative thinking patterns and practical skills among our youth, which help them, excel in any professional role. The material infrastructure of the universities, though important in achieving their specified goals; yet their significant objectives are largely contingent upon the dedication, zealous engagement, professional commitment, and specialized expertise of their faculty. Unfortunately, theoretical knowledge imparting rather than satisfying the industrial demands for appropriate human resources and technology has been still the norms in our universities. Faculties have been engaged in delivering the minimum contents, without focusing upon the practical aspects of the knowledge and its pragmatic application in various professional fields in real life. The courses are usually updated at the interval of many years, fixed by the curriculum management committees and board of governors for satisfying the fragmented needs. Consequently, students' competence remains scrappy and they are unable to demonstrate their mastery of skills needed in their respective professions. Such culture of universities has made the faculties to bear low responsibility in fulfilling the industrial needs for human resources and technology (McKinsey, 2012). As a corollary, our country is suffering from the acute shortage of qualified human resources and appropriate technology.

The global scenario of higher education reveals that universities around the world experienced tremendous pressure to acclimatize with changing environment of technological, social, political, and economic forces. This situation has become more conspicuous during last twenty years (Bartell, 2003). Higher educational institutions faced increasing difficulties by the extraordinary development, complexity, and competitiveness of the international economy to quickly respond to this shifting scenario and require adaptation specifically in major transformation in the training, research, and administrative institute higher education (Bartell, 2003; Cohen, 1997).

Despite their significant role in national progress, university faculty seems to be under-represented in studies of organizational sciences as most of the research has been conducted with assembly line workers of different production units; professionals from services industries; and the employees of various national and multinational business and corporate organizations. This relative paucity of research on university faculty may partly be due to the unique organizational structure of universities and their distinctive modes of production, which contrast them with the business and corporate organizations. Contrary to corporate sector, universities frequently possess unclear and hard to measure objectives (Bartell, 2003; Kosko, 1993). In addition, the external and internal stakeholders of universities play very crucial rules in their operations. The internal stakeholders include potential students, local and foreign graduates, enrolled students, and professionals whereas external stakeholders may include unions, political authorities, press and donor agencies in surrounding communities, education policy makers, and higher education monitoring authorities. The demands of these internal and external stakeholders are quite diverse and sometimes might be in conflict with each other (Bartell, 2003). Universities, in this context, resemble a complicated web, where the managers can play the important role to integrate the various components of the web through effective communication sharing of duties and decision-making powers among faculty (Bartell, 2003; Mintzberg & Van der Hayden, 1999). This elucidates the uniqueness of university as an organization and faculty as distinctive potential human capital and highlights the fact that research done in the context of corporate or business sectors should be generalized to university settings very cautiously.

Given the plight of universities in our country and the dearth of research on university teachers, studies are needed to identify how positive work attitudes of university faculty may help them engage in committed and dedicated services while abolishing dysfunctional work attitudes and behaviors. Research should also focus on work environment and characteristics of jobs of university teachers, which may impede or facilitate their optimal performance. The pertinent personality characteristics and the psychological capabilities of university teachers that can be harnessed for improved performance must also be investigated. Finally, studies should

explore the protective factors that may shield university teachers from the negative work outcomes such as burnout and absenteeism.

In lieu with the aforementioned scenario, the present research is an empirical attempt to integrate various factors that may influence university teachers' job performance and certain positive work outcomes while diminishing maladaptive work attitudes and behaviors. The conventional research and practice of industrial/organizational psychology has largely focused on limitations of human beings rather than their strengths; their negative states of mind rather than productivity of their positive states of being. Organizational psychologists had greater emphasis on exploring dysfunctional personality characteristics of people at work rather than their personal assets and virtues, and the depressing outcomes of their exertions rather than the efficiency and innovations of their work. In contrast to this typical orientation of researchers in organizational sciences, the present study has adopted the perspective of positive psychology, which has been thought as a catalyst in changing the focal point of psychology from remedy of adverse things in life to development of positive qualities (Seligman & Csikszentmihalyi, 2000).

The emerging concept of a 'positive psychology' has attained a swift thrust into both psychology (Seligman, 1999) and the organizational behavior (Luthans, 2002a, 2002b, 2003). During the past few years, this emerging positive approach has demonstrated several important implication in organizational settings and work behaviors. These include Positive Organizational Scholarship (POS; Cameron & Caza, 2004; Cameron, Dutton, & Quinn, 2003), Positive Organizational Behavior (POB; e.g., see Luthans, 2002a, 2002b, 2003; Nelson & Cooper, 2007; Wright, 2003; Youssef & Luthans, 2007) and, in recent times, Psychological Capital (PsyCap; Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007). The basic tenet of these positive approaches is their focus on the strengths of individuals rather than their weaknesses, the virtues and opportunities in the workplace rather than stress and burnout in the organizations. These positive movements are erudite and pragmatic steps towards the completion of the rightful jurisdiction of psychology by incorporating the brighter and optimistic half of the discipline that has "voluntarily

restricted itself to only half its rightful jurisdiction, and that the darker, meaner half" (Maslow, 1954, p. 354).

There is a broad agreement, despite few uprising thoughts (e.g., see Fineman, 2006) that there is necessity of a more equilibrated approach that must emphasize on building the strengths and efforts to rectify the weaknesses in our general life and particularly in our work settings. Among these "balanced" perspectives, Positive Organizational Behavior (POB) is most relevant to the discipline of I/O psychology because of its methodological and scientific rigor and level of analysis that the construct espouses. Developed by Luthans (2002a, 2002b), the idea of POB is a response to a dire need of relevant, proactive approach to organizational research, which should incorporate human strengths and capacities to allow room for the applications of positive psychology in organizational behavior. This approach provides the theoretical perspective of the present research endeavor because it offers one of the most scientific blends of positive psychology (Seligman, 1999) and organizational behavior (Luthans, 2002a, 2002b, 2003). This perspective entails that the focus of research in organizational sciences should incorporate the research and implications of psychological capabilities and positive human resource strengths, which can not only be measured, developed, but also be sufficiently managed for improvement of performance in contemporary workplace (Luthans, 2002b).

Essentially, the present research intends to develop and test a model within the framework of Positive Organizational Behavior (POB) that may integrate personal, situational/organizational, and work related variables that may have direct bearings upon the job performance and certain other work related behaviors in university settings. It attempts to incorporate attitudinal, motivational, and behavioral aspects of university teachers that may facilitate or impede their job performance and certain prosocial as well as dysfunctional behaviors at work. The study is one of the first attempts at incorporating job demands-resources model (JD-R; Bakker & Demerouti, 2007) into the framework of positive organizational behavior. Moreover, this study takes into account the differential influences of temporal stability of various factors, which are operationalized as traits, trait-like, state, and state-like variables. Finally,

the proposed model of this research integrates variables from cognitive, affective, and behavioral dimensions of university teachers to maximize the predictive validity of the model.

The proposed model of this study suggests that psychological capacities of university teachers operationalized as state-like variables (which include hope, optimism, resilience, self-efficacy; collectively termed as psychological capital or PsyCap) and positive affectivity (operationalized as trait) would lead to the feelings of psychological ownership. This relationship would be moderated by teachers' perceptions of the degree of authenticity of their leaders. The affective state of psychological ownership would lead to the motivational state of work engagement if university teachers experience more job resources (including job autonomy, supervisor support, and coworker support) and less job demands (i.e., quantitative overload and academic workload). Work engagement, in turn, would lead to increased organizational citizenship behavior, optimal job performance, reduced burnout, and less counterproductive work behaviors. The relationship of work engagement and its behavioral outcomes would be moderated by positive and negative emotions at work (operationalized as states). Hence, this model proposes psychological ownership and work engagement as mediators between psychological capacities and work related behavioral outcomes whereas job demands and resources and authentic leadership serves as moderators along the chain of relationships in the model.

This model is important, as it is the first attempt to incorporate some of the most significant constructs of POB into a coherent theoretical network. Since POB is relatively an emerging field, literature on its important constructs like psychological capital, authentic leadership, psychological ownership, and work engagement is not that much abundant. Nevertheless, the available studies have demonstrated each of these constructs in relation to various work behaviors and job performance.

Avey, Luthans, and Youssef (2010) investigated the unique contribution of psychological capital in work attitudes and behaviors while controlling for the personality attributes of self-evaluations, extraversion, conscientiousness, and various

types of person-organization fit. In their study involving group-level of analysis, Clapp-Smith, Vogelgesang, and Avey (2009) explored trust as a mediator in the relationship of authentic leadership and positive psychological capital with financial performance.

Avey, Avolio, Crossley, and Luthans (2009) developed pertinent theory and operationalization of psychological ownership and demonstrated its relationship with various work outcomes. Van Dyne and Pierce (2004) observed an association between psychological ownership, employee attitudes, and organizational citizenship behavior whereas Schaufeli and Bakker (2004) found work engagement as positive correlate of organizational commitment and negative correlate of intentions to quit; and engagement has also been a predictor of discretionary behaviors at work (Konard, 2006). However, no empirical study has tried to relate these various positive constructs with one another. Furthermore, to the best of our knowledge, no published research has explored the relative influences of psychological capital, authentic leadership, psychological ownership, and work engagement on the various behavioral outcomes. Similarly, no published research has assessed psychological capital in relation to job related affective well-being.

Another important facet that justifies the worth of the proposed model of this study pertains to its comprehensiveness as per the choice of variables. The proposed model incorporates affective (e.g., affectivity, job related affective well-being), cognitive (perceptions of authentic leadership), and behavioral variables (organizational citizenship behavior, counterproductive work behavior, job performance, burnout). From the perspective of social psychology, the model is in line with theory of reasoned action (Ajzen & Fishben, 1980) which is an empirically supported theory explaining the relationship between attitudes and actual behavior. The theory predicts that attitudes are translated into behavioral intentions when there is a subjective probability that important others will approve of performing the behavior (subjective norm) and these behavioral intentions are better predictors of the actual behavior as compared to the original attitude.

In the proposed model, psychological ownership is perceived as an attitudinal variable whereas teachers' perceptions of job resources and job demands would provide an operationalization of subjective norms. Work engagement is a motivational state or behavioral intention, which finally predicts the actual behavioral outcomes of job performance, organizational citizenship behavior, counterproductive work behavior, and burnout. From the perspective of level of analysis, the model amalgamate personal variables like dispositional affectivity and state-like psychological capital; situational/organizational factors like perceptions of authentic leadership; and task or work related factors like job demands and resources.

The integration of job demands-resources model (JD-R; Bakker & Demerouti, 2007) in the framework of positive organizational behavior is another unique and novel contribution of the proposed model of the present study. The JD-R model has contemporarily been investigated in relation to many organizational variables and behavioral outcomes of work and it has been met with strong empirical support across various studies. For instance, Bakker, Emmerik, and Riet (2008) found that the JD-R model significantly predicts burnout and job performance. Similarly, Jackson, Rothmann, and van de Vijver (2006) investigated JD-R model in relation to well-being of educators and found that job resources positively influenced whereas job demands negatively influenced psychological well-being of teachers.

The present research is the first empirical attempt in Pakistan for examining the dynamics by which psychological capital may influence job performance and various work outcomes. To our understanding and knowledge, studies on psychological capital and positive organizational behavior are quite scarce in Pakistan. Hence, this study attempts to construct validate positive psychological capital as a higher order construct in Pakistan. The study further intends to identify the role of PsyCap in developing the perceptions of authentic leadership and psychological ownership among university teachers. It also aims at establishing the additive value of PsyCap in relation to personality traits of positive and negative affectivity-the personality traits that are heavily researched in organizational behavior and have been found to be consistent predictors of various work attitudes and

behaviors such as job satisfaction and burnout (Judge, Heller, & Klinger, 2008; Zellars, Hochwarter, Perrewe, Hoffman, & Ford, 2004). The present research would examine the role of job demands and resources and university teachers' perceptions of authenticity of their leadership in moderating the proposed relations between psychological capacities, psychological ownership, and work engagement, which are thought to be the predictors of work outcomes of organizational citizenship behavior, burnout, job performance, counterproductive work behaviors, and job related affective well-being.

Finally, the perspective of Positive Organizational Behavior (POB) has rarely been explored among a sample of university teachers. Most of the studies on POB have incorporated a wide cross-section of public and private industries such as sales, manufacturing industries, NGOs, students, high-tech industries (Choubisa, 2009; Luthans, Avey, & Patera, 2008; Youssef & Luthans, 2007). Few studies have been conducted with homogenous samples in terms of occupational groups, for instance, Walumbwa, Luthans, Avey, and Oke (2011) studied bank employees, whereas, Luthans, Avolio, Walumbwa, and Li (2005) investigated the role of hope, optimism, and resilience among factory workers of China. The present study may provide an empirical perspective for cultivating the psychological resources of university teachers that may help improve their modes of knowledge delivery to our youth in rapidly changing and demanding operations of higher education. Certain factors like decrease in fiscal support by the state, increased cost of equipment and assets, distant learning and mass education have challenged the efficiency and usefulness of academic programs, internal relations, and delivery systems of the universities. Most of university stakeholders e.g., teaching faculty and administrators have become futile because of the vast intricacies of external factors. In order to execute strategies for increased productivity, certain quick external demands often require institutional changes and frequent adaptation (Bartell, 2003). Since the external demands and pressures cannot be regulated by university faculty; it is advisable to improve the internal working conditions, ameliorate the leadership styles, redesign the jobs, cultivate the psychological capacities and resources of the faculty, and develop the job resources of the university—all of which may help establish optimal work practices to

better adapt to the external demands and standards of excellence. The proposed model of the present study is an endeavor to establish the role of the aforementioned internal modifications through the empirical identification of relationships between these variables and the enhanced job performance coupled with increased prosocial organizational behavior and decreased dysfunctional work outcomes. Before discussing this proposed model of the study, a brief review of POB and PsyCap deems appropriate. The following section is meant to achieve the same end.

Positive Organizational Behavior

Luthans (2002b) defines POB as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (p. 59). Although positivity is deemed as the necessary hallmark of a psychological resource capacity in POB paradigm, it must also be: (a) validly measurable and has a sound theoretical origin (b) it can be changed and developed, and (c) it should have an recognized influence on performance (Luthans, 2002a, 2002b; Luthans, Avolio, et al., 2007). Through these criteria, POB is distinguished in many ways from other linked, yet distinct, positive approaches with different purposes. Peterson and Seligman (2004) noted that in a budding area, such inclusion criteria are necessary for instituting the working boundaries for its practice and research. The aforementioned POB definitional criteria are utilized here to differentiate and clarify the realm of this proposed study.

POB is further differentiated from popular and fictional positive psychology and other positive constructs in traditional organizational behavior such as POS through its exclusive emphasis on state-like psychological resource capacities, which means that the POB capacity has the potential of being developed and changed (Avolio & Luthans, 2006). On the contrary, other positive constructs and approaches usually rely on relatively enduring, dispositional, and more trait-like attributes that are likely to be developed (a) across one's lifespan (b) through the absence of numerous inhibiting factors and presence of the suitable enabling factors or (c) through rigorous

treatments and long-term specialized interventions (Linley & Joseph, 2004). . In comparison with the developmental characteristic of positive psychological resource capacities of POB, other approaches to development are unable to befit the contemporary work milieu that is characterized by rapid change, scarcity of monetary assets, time restrictions, growth flexibility, and unpredictable environment. As a result, organizations may enjoy a competitive edge through their employees' positive psychological capacities, which can be managed and cultivated (Luthans et al., 2006; Luthans & Yossef, 2007a, 2007b), and are termed as Psychological Capital (PsyCap). The potential for development and its recognized influence on performance enrich this recently recognized resource as a source of competitive advantage and thus come very closer to the objectives of I/O psychology. The following section presents a review of PsyCap, which is a constellation of POB state-like resource capacities.

Psychological Capital (PsyCap)

Positive psychological capital comprised of positive psychological resources or capacities that, as POB dictate are measureable, open to development, and manageable (Luthans, Luthans, & Luthans, 2004). More specifically, Luthans et al. (2004) refer to the psychological resources of hope, self-efficacy, optimism, and resilience, which, to some extent, have already been investigated within the organizational literature (see for example, Hamel & Valikanges, 2003; Peterson & Luthans, 2003). These capacities have relevance to organizational scholarship and practice in their own right. Thus, POB may provide a competitive edge for researchers as well as practitioners of management through the capacities of hope, self-efficacy, resiliency, and optimism, which, owing to their malleable nature, have the potential to be developed and capitalized (Luthans, Youssef, et al. 2007). Preliminary research across diverse samples support that PsyCap is a unique source of viable vantage because the synergetic and interactive effect of its constituent four capacities is more pronounced in combination with one another (Luthans et al., 2005).

Positive Psychological Capital (PsyCap) can be conceptualized as an individual's positive psychological state of development that is constituted by: (i)

confidence (self-efficacy) of taking on and putting in the required exertion for the successful accomplishment of challenging tasks; (ii) investing consistent efforts for achieving goals and, when required, devising alternative paths to goals (hope) for their successful accomplishment; (iii) making a positive attribution (optimism) about present and future success; and (iv) when confronted with issues and hardships, sustaining and bouncing back and even beyond (resiliency) to accomplish success (Luthans, Avolio, et al., 2007).

Results of construct validation studies that have focused on discriminant and convergent validations of two or more of the constituent elements of PsyCap (Bryant & Cvengros, 2004; Carifio & Rhodes, 2002) and exclusive models of PsyCap, which operationalize it as a core construct comprising of four psychological capacities (Luthans, Youssef, et al., 2007; Luthans et al., 2005) have established its construct validity as a higher order, multidimensional core construct. This approach is at par with the construct of transformational leadership that is constituted by four dimensions (Bass, Avolio, Jung, & Berson, 2003) and the four dimensional model of core self-evaluations (Bono & Judge, 2003; Judge & Bono, 2001).

PsyCap is proposed to challenge and promote the development of one's actual self into what one can become in the future (the possible self) through the development and capitalization of what one already possesses, what one understands, and who one knows. Initial research is conclusive that PsyCap enhances social and human capital through enriching positive work attitudes (Larson & Luthans, 2006).

This integrated framework of conceiving, assessing, and developing the psychological capacities offer various sources of collaborative interactions. PsyCap can be drawn from both within and across the psychological resource capacities when it is depicted as multifaceted, latent factor (see Law, Wong, & Mobley, 1998). As a super-ordinate construct, common themes are running through PsyCap, which represent the available physical and personal resources, positive evaluation of the specific situation, and the likelihood of accomplishment through personal struggle, mounting endeavor, and determination (Luthans, Norman, Avolio, & Avey, 2008).

Multiple-component resource theories (e.g., Kobasa, 1979), psychological resource theories (Hobfoll, 2002), and key resource theories support the interactive dynamics of psychological capacities that constitute the latent factor of PsyCap.

In addition to these constructs, several other psychological capacities having rich theoretical and empirical support, valid measurement, malleable nature, and performance impact in the work settings can be considered as potential candidates to be included in PsyCap. These constructs may include creativity and wisdom as cognitive capacities, emotional intelligence, forgiveness, and gratitude as social capacities, the humor, flow, and subjective well-being, as affective capacities, and the latent core resource of spirituality, authenticity, and courage. Thus, being open to further development, this classification of POB and PsyCap is amenable to inclusion of other positive capacities that might meet the criteria. Therefore, PsyCap is not restricted to some closed taxonomy of positive psychological capacities (Luthans & Youssef, 2007a). Thus, being open to further development, this classification of POB and PsyCap is amenable to inclusion of other positive capacities that might meet the criteria. Therefore, PsyCap is not restricted to some closed taxonomy of positive psychological capacities (Luthans & Youssef, 2007a).

Psychological capital constitute a potential source of competitive edge for university teachers. Faculty who is rich in psychological capital is more self-efficacious with an optimistic attitude towards life. Being hopeful, they have the potential to instill resilience in their students against various holdups in life. The component of hope in psychological capital equips university teachers with the essential elements of educational planning and provides them with the goal directed energy through which they can strive for achieving their planned educational and research goals. Their self-efficacy beliefs make them realize that they can effectively impart their knowledge and experience to their students. They invest persistent and unrelenting efforts at the development of their institutions and do not turn off by various setbacks in life. Thus, they have the capability to yield a learning environment enriched with positivity, enthusiasm, dedication, and meaningful pragmatic learning, which constitute the hallmark of a distinguished university. Being such an important

personal resource, psychological capital should be investigated for it advantageous effects on work related behaviors among university teachers. The present research is an empirical step in the same direction as it intends to develop and test a model through which psychological capital influences university teachers' work attitudes, intentions, and behaviors.

Psychological Capital and Work Outcomes

Psychological capital constitutes an important personal resource to be capitalized upon in educational settings. Few studies have examined psychological capital in samples of teachers or academicians. Recently, Kesari (2012) has found that PsyCap promotes positive experiences in stressful occupational environments of teachers. Hence, the lack of PsyCap has the potential to exacerbate the experience of turnover intentions amongst teachers. Kesari also found that psychological capital is a predictor of pleasure and meaning amongst teachers despite their stressful occupational field. He also demonstrated a practical and statistically significant relationship between PsyCap, pleasure, and meaning. The higher the PsyCap teachers have, the more likely they are to experience pleasure and meaning at work. More recently, Wen and Lin (2014) found PsyCap as an important personal resource that helped college freshmen in coping with the learning and adaptive stress. These finding in academic settings are in line with numerous studies (Jex, 1998; Larrivee, 2000, Luthans, Avey, & Patera, 2008; Luthans et al., 2004; Page & Donohue, 2004), which have found that PsyCap is an important psychological strength that facilitates employees in developing essential strengths for coping up with the stressful demands of workplace. Finally, Kesari reported a strong and positive association between PsyCap and engagement among teachers. This finding is supported by studies (Luthans, Norman, Avolio, & Avey, 2008; Hakanen, Bakker, & Schaufeli, 2006; Kong, 2009; Luthans et al., 2004), which assert that PsyCap acts as strength in stressful occupations such as teaching as it promotes the experience of positive emotions such as engagement. It is important to note that even though teachers may possess PsyCap, they have to be able to use it constructively within their occupational environment in order to reap the benefits of positive experiences (Luthans et al., 2008;

Luthans et al., 2004; Page & Donohue, 2004). Similarly, in a sample of Chinese teachers, Cheung, Tang, and Tang (2011) found that PsyCap was a significant mediator of negative stressors at work.

Hart and Cooper (2001) have found that the occupational stress within the teaching profession depletes states of well-being. Consequently, it can be seen that occupational stress is associated with negative psychological states. Specifically, with relation to the teaching profession, occupational stress has been found to be associated with low moods, poor well-being, turnover intentions, anxiety, and depression (Grey, 1998; Pawan, 2003; Xaba, 2006). Hence, occupational stress is a chief contributor of poor psychological states. Importantly, studies (Luthans et al., 2004; Page & Donohue, 2004) have concluded that in the presence of occupational stress the right psychological capital can act as a strength that promotes positive psychological states. More so, psychological capital can act as a mediator within stressful occupations (Luthans, Norman, Avolio, & Avey, 2007; Kong, 2003). Further, Avey, Luthans, and Jensen (2009) assert that psychological capital can act as a psychological strength to combat occupational stress and turnover. Abbas and Raja (2011) found that psychological capital positively predicted supervisor-rated innovative job performance and negatively predicted self-rated job stress among employees of telecommunication and banking sector of Pakistan. Similarly, in a diverse sample of employees of various organizations in Pakistan, Abbas, Raja, Darr, and Bouckenooghe (2012) found that psychological capital was positively associated with job satisfaction and supervisor rated performance. They also found that psychological capital as a moderator dampened the negative association of perceived organizational politics with supervisor rated performance and self-reported job satisfaction. Thus, it is clear that the psychological capital can lead to positive psychological experiences even when challenged with a stressful occupational field such as being a faculty member of a university.

Despite being in its infancy, PsyCap research has established its external validity across diverse settings. Luthans and Youssef (2007a, 2007b), for instance, has found a positive link of PsyCap with satisfaction and performance of employees in

high-tech manufacturing sector and services sector. Cross-cultural empirical evidence on PsyCap was gleaned from China (Luthans et al., 2005) whereas self-efficacy was explored in Southeast Asia (Luthans, Zhu, & Avolio, 2006) and Central Asia (Luthans & Ibrayeva, 2006). Similarly, construct of hope was validated among organizational leaders of Africa (Luthans, Van Wyk, & Walumbwa, 2004) and Middle East (Youssef & Luthans, 2006). Avey, Wernsing and Luthans (2008) found that psychological capital was positively related to engagement and organizational citizenship behavior and negatively related to cynicism and organizational deviance in a study of employees from a broad cross-section of organizations. In India, Singh and Mansi (2009) found that optimism and self-efficacy were positively related to university students' psychological well-being. Similarly, Avey, Luthans, Smith, and Plamer (2010) found that psychological capital was an important determinant of employees' psychological well-being over a period of three weeks.

Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) conceived the constituent elements of psychological capital as personal resources for getting the employees engaged and providing them with a shield against burnout and exhaustion as corollary to job demands. Llorens, Schaufeli, Bakker, and Salanova (2007), in a sample of university students found that positive sources of self-efficacy beliefs mediated between task resources and engagement such that engagement increases self-efficacy beliefs which in the long run increases the task resources. Furthermore, in a study among 2249 Norwegian teachers in elementary school and middle school (Skaalvik & Skaalvik, 2010), self-efficacy was negatively related to burnout. Psychological capital has also turned out to be positively related to work engagement (Avey, Wernsing, & Luthans, 2008; Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008); organizational commitment (Luthans, Norman, Avolio, & Avey, 2008); and lower levels of absenteeism (Avey, Patera, & West, 2006). After understanding the PsyCap as a core and higher order construct, it deems appropriate to review its constituent elements. The following section is couched to meet this very objective.

Positive Psychological Capacities

The affective components of PsyCap are overlapping in nature because of which hope might easily be confused with optimism. Thus, it is very crucial to have categorically defined boundaries of each of the constituent capacity of PsyCap so that the additive effect of each of them in the composite construct of PsyCap can be ascertained. The following section is couched with the purpose of reviewing each positive psychological capacity separately as well as in conjunction with the construct of PsyCap.

Self-efficacy. According to Stajkovic and Luthans (1998b), work related self-efficacy refers to one's belief in one's capabilities of manipulating the motivation, cognitive assets, and required courses of action for the successful execution of a given job within a specific milieu. This conceptualization of self-efficacy is grounded in Bandura's (1994, 2001) social cognitive theory which enjoyed huge empirical support. Self-efficacy is usually equated with confidence (e.g., Kanter, 2005; Stajkovic, 2006) and it involves setting challenging goals for oneself, plunging oneself into tough jobs, self-motivation, substantial endeavors and their utilization toward task mastery and goal achievement, and persistence when faced with hurdles (Stajkovic & Luthans, 1998a, 1998b).

Owing to various unique features of self-efficacy, it fits best with the inclusion criteria of Positive Organizational Behavior or POB (Luthans, 2002a). Self-efficacy is routed in a very rich theoretical foundation, which has enjoyed extensive empirical support. Self-efficacy has been predominantly measured (e.g., Maurer & Pierce, 1998; Parker, 1998) and supported (Bandura, 1997) as a state. Its state-like nature is evident in its domain specificity and its progressive nature over time. Moreover, results of meta analyses (e.g., Bandura & Locke, 2003; Stajkovic & Luthans, 1998a) provided evidence for positive association of self-efficacy with various work outcomes. Self-efficacy has been shown as a positive correlate of participation (Lam, Chen, & Schaubroeck, 2002), leadership effectiveness (Luthans, Luthans, Hodgetts, & Luthans, 2001), creativity (Tierney & Farmer, 2002), entrepreneurship (Luthans &

Ibrayeva, 2006; Neck, Neck, Manz, & Godwin, 1999), career decision-making (Nilsson, Schmidt, & Meek, 2002), and moral decision-making (Youssef & Luthans, 2005a).

Self-efficacy is especially relevant to the profession of teaching. Teachers' self-efficacy has been extensively studied as a domain specific aspect of general self-efficacy. Teachers with high efficacy are more likely to seek improved teaching methods and test various instructional methodologies (Allinder, as cited in Henson, 2001). Students of teachers who are high on self-efficacy generally perform better as compared to other classes. Teacher efficacy was predictive of achievement on many standardized achievement tests. It has also been related to students' own sense of efficacy (Anderson, Greene, & Loewen, as cited in Henson, 2001) and student motivation (Midgley, Feldlaufer, & Eccles, as cited in Henson, 2001). Research also posits mediational role of self-efficacy in explicating teachers' motivation to demonstrate their knowledge practically by acting on what they know and can do (Gibbs, 2003).

Hope. The dynamic interaction between sense of successful (a) agency (goal-directed drive) and (b) pathways (planning for goal achievement) leads to a motivational and positive state known as hope (Snyder, Irving, & Anderson, 1991). Like self-efficacy, hope arises from individuals' self-initiated motivational state of goal-directed behaviors; however, it relies on a different set of mechanisms to accomplish these goals.

Among these mechanisms, sense of agency or internalized control spawns impetus and persistence in goal-directed behaviors whereas another parallel process formulates and adapts alternate paths and contingency plans for the successful goal-accomplishment. Hope also determines the quality of goals being set and the means through which progressively demanding goals are chosen, tackled, achieved, and modified if required as per the new situational demands (Snyder, Rand, & Sigmon, 2002).

Hope meets the critical criteria of POB of being state like and developable capacity, as various interventions have been successful in enhancing hope (Snyder, 2000). It has been validly measured and research provides a strong evidence for its performance impact in work settings. Youssef and Luthans (2007), for instance, found positive relation of hope with employee performance and work attitudes whereas Luthans, Avolio, Walumbwa, and Li (2005) reported that workers' hope was positively related with their supervisor rated performance and merit salary in Chinese factory. Hope has also demonstrated its positive relationship with mental and physical health, coping skills, and beliefs, athletic achievement, and other positive well-being outcomes (Onwuegbuzie & Snyder, 2000; Snyder, 2000).

For university teachers, hope constitute a very essential personal attribute. It should be linked with teacher's effectiveness because, if imparting knowledge and transferring the research skills is assumed as the professional goal of a university teacher, hope spawns goal-related adaptive expectations and behaviors, which may result in a positive outcome for that goal. Duckworth, Quinn, and Seligman (2009) asserted that hope might be an important precursor to effective teaching. Finally, in their longitudinal study, Day, Hanson, Maltby, Proctor, and Wood (2010) reported that hope explained unique variance in objective academic achievement above personality, general intelligence, and previous academic record.

Optimism. Seligman (1999) viewed optimism as an attributional style that explicates negative events via external, transitory, and situation-specific causes and positive ones via personal, persistent, and ubiquitous causes. This attributional style is reversed in case of pessimism where negative events are internally ascribed to pervasive and consistent sources whereas positive events are externally imputed to transitory and situation-specific reasons (Peterson & Steen, 2002; Seligman, 1998). The differences in these attributional patterns direct optimists to develop positive expectations that motivate them in their goal pursuit whereas the pessimists become victims of self-doubt and negative expectancies , which halts their journey towards their goals (Carver & Scheier, 2002).

Just like hope and self-efficacy, optimism can be cultivated and developed during the pursuit of personally cherished objectives. However, in contrast with hope and self-efficacy, which focus upon an internalized agentic process of goal pursuit, optimism offers an external dimension (Bandura & Locke, 2003) in a sense that the sources of an optimist's positive expectations about future may relate to others or certain external factors and her/his attributions of negative events largely relies on detaching himself or herself from failures. Moreover, in contrast with self-efficacy, optimism is not domain specific and unlike hope, it does not incorporate pathways generated and employed for goal accomplishment (Luthans & Jensen, 2002). Besides its cognitive aspects, optimism also involves emotional and motivational components whereas hope and self-efficacy are mainly cognitive in nature (Peterson, 2000; Seligman & Csikszentmihalyi, 2000). Finally, numerous empirical studies testify the discriminant validity of self-efficacy, hope, and optimism (Bryant & Cvengros, 2004; Carifio & Rhodes, 2002).

Optimism's relationship with various domains of performance specifically in workplace (Luthans et al., 2005; Luthans, Youssef, & Avolio, 2007; Seligman, 1998; Youssef & Luthans, 2007) is quite pertinent to its inclusion in POB (e.g., Peterson & Barrett, 1987; Prola & Stern, 1984). Studies have also found that optimism is a positive predictor of high performance in leadership and sales (e.g., Chemers, Watson, & May, 2000; Schulman, 1999). Finally, emerging empirical evidences suggest that optimism have the potential of being nurtured and accordingly improved (Seligman, 1998) through intensive interventions (Luthans, Avey, Avolio, Norman, & Combs, 2006; Luthans, Avey, & Patera, 2008).

Optimism has a unique relevance to the profession of teaching. The cultivation of an effective learning environment along with improved students' learning and achievement at institute of higher learning has a strong contingency upon teachers' focus on academic tasks and their beliefs about students' academic achievement. Teachers' optimism reflects her/his such beliefs and efforts on improving student achievement (Kılınç, 2013). Optimism has been considered as one of the most cardinal individual attributes that positively contributes to students' learning and

achievement and the effectiveness of overall teaching environment in educational institutions (Beard, Hoy, & Woolfolk, 2010). Recent researches have demonstrated that optimism is also related teacher burnout (Lynn, 2013; Yalçın, 2012), academic achievement (Mishoe, 2012; Nelson, 2012), teacher flow (Beard, 2008), and teacher professionalism (Dean, 2011).

Resilience. According to Luthans (2002a) resilience is "the capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility" (p. 702). POB conceives resilience as a measurable state like capacity (Luthans, Youssef, & Avolio, 2007; Wagnild & Young, 1993) that can be learned and developed by ordinary people (Masten & Reed, 2002). This is in sharp contrast with the traditional theorization of resiliency as an astonishing personal trait, which can only be appreciated in highly exceptional individuals.

Coutu (2002) delineates resilient individuals as those who possess meaningful values and beliefs, accept reality, and own efficient adaptive mechanisms that allow them for flexible management in unexpected circumstances. In the same vein Wolin and Wolin (2006) defy the "damage model" and the associated fundamental "risk paradigm" that institutes fixed views in terms of a person's "at-risk" classification. Without any regard to a person's real ability to adapt, cope, and bounce back, these labels are transformed into self-fulfilling prophecies which largely determine one's success or failure by shaping the subsequent typical treatment one receives from his/her teachers, friends, and the society.

The POB perspective on resiliency is grounded in rich theoretical and practical foundations of this construct in clinical psychology; however, it infers the common themes and adapts wherever necessitated by the discontinuities across contextual differences of clinical and organizational psychology. Specific interventions aimed at developing resilience at workplace provide such a bridge (see Masten & Redd, 2002 for a review of these interventions).

POB perspective on resiliency elucidates the proactive aspect of resilience in that it supports its stimulating potential for discrepancy creation even when no external threats are evident (Bandura & Locke, 2003). It not only conceives hardships and obstacles as learning, progression, and expansion opportunities but also brings about unique, ingenious, and supple adaptive mechanisms, which are quite instrumental towards the accomplishment of meaningful goals. Resilience of this type can be cultivated and managed in the workplace with a strong predictive power in relation to work-related outcomes (Luthans et al., 2005; Luthans, Avey, et al., 2006; Luthans, Youssef, et al., 2007; Waite & Richardson, 2004).

Resilience, as a capacity, has far-reaching effects in the profession of university teaching. Recent years have witnessed multiplication of professional challenges of university teachers. Ongoing didactic and curriculum change, greater societal anticipations but lower societal appreciation, keeping pace with advancement in technology, an ever-increasing diversity of students, greater liability to policy makers, and an amplification of the workload plus administrative tasks (Keogh, Gravis, Pendergast, & Diamond, 2012) are some of the professional challenges being faced by university teachers. In such a demanding professional context, only a resilient teacher has the capability to turn perils into pearls. Resilient teachers employ specific coping strategies when experiencing disruption and anxiety because of adverse situations (Henderson & Milstein, 1996).

The aforementioned literature elucidates the nature of PsyCap as being conceptualized in the present investigation. The next step is to establish the additive value of PsyCap against the already established personality traits, which have a demonstrable impact on organizational behavior, work attitudes, and organizational outcomes as necessitated by Avey, Luthans, and Youssef (2010). In order to meet this end, the present study has assimilated affectivity (positive affectivity and negative affectivity) into the proposed model of positive organizational behavior. The personality traits of affectivity has deliberately been chosen for the current study as these traits encompasses both cognitive and affective elements and has widely been studied in relation to work attitudes and organizational outcomes (see Ng & Sorenson,

2009 for meta-analysis). Since the psychological resources in the PsyCap also possess affective (hope, optimism) and cognitive elements (self-efficacy, resilience), affectivity seems to be the best matching personality traits against which PsyCap must be construct validated. The next section offers a review of affectivity.

Affectivity

Affectivity refers to general propensity towards experiencing a certain mood (e.g., sorrow or happiness) or to respond to objects (e.g., situations or people) in a specific way or with particular emotions (Abraham, 1998; Morris & Feldman, 1996). Literature has recognized two basic dimensions of affectivity, which include Negative Affectivity (NA) and Positive Affectivity (PA). These are conceived as enduring dispositional characteristics, which represent the likelihood of experiencing negative or positive affective states, respectively (Watson & Clark, 1984). Individuals possessing high PA are inclined to feel vigorous, passionate, and attentive, whereas low PA individuals are often sluggish, inactive, and indifferent. In contrast to high NA individuals, individuals who are low on PA are simply less likely to experience positive affects but this does not mean that they are destined to experience something negative. High NA persons tends to be very tense, irritated, scared, and nervous as compared to low NA individuals who tend to be docile, composed, and contented (Cropanzano, James, & Konovsky, 1993).

There is growing debate on the nature of PA and NA (Russell & Carroll, 1999; Spector, Van Katwyk, Brannick, & Chen, 1997). Many researchers are of the view that PA and NA are not exactly the opposite poles of a single underlying continuum; rather, they are two distinct, separate dimensions (Cropanzano et al., 1993). Therefore, a high score on both PA and NA is possible for an individual who tends to experience fluctuating moods in response to environmental events and may be more emotional (high affect). On the other hand, some researchers argue that PA and NA operationalize the amount of happiness an individual experience over time and thus it represent opposite poles of one concept (Judge, 1992). Despite these differences of opinions, Watson and Clark's (1984) two-factor model of affectivity enjoyed

considerable empirical support (Cropanzano et al., 1993) as numerous longitudinal and cross-sectional evidences support the view that PA and NA are consistent, relatively independent, and somewhat inherited personal dispositions having differential relationship with various behaviors (George, 1992; Watson, Clark, & Tellegen, 1988).

To our understanding and knowledge, no published study has seen affectivity in relation to PsyCap and psychological ownership. The current study has incorporated affectivity as a personality trait into the proposed theoretical model in response to Youssef and Luthans' (2011) call for integrative model of psychological capital in the workplace. These authors recognized the importance of positive as well as negative constructs, states as well as traits, use of multiple level of analysis, and broad range of work related outcomes in explaining the dynamics of PsyCap in relation to work outcomes. Conscientiousness and extraversion (as domain of Big Five personality factors) and core self-evaluations have been seen in relation to PsyCap by Avey, Luthans, and Youssef (2007). These authors reported that PsyCap was successful in explaining unique variance in cynicism, intentions to quit, organizational citizenship behavior, and counterproductive work behavior above and beyond the aforementioned personality variables. Furthermore, extraversion, which is equated with positive affectivity in relevant literature (and neuroticism with negative affectivity; see Brief, 1998; Judge, Heller, & Klinger, 2008; Watson & Clark, 1997; Zellars, Hochwarter, Perrewe, Hoffman, & Ford, 2004), was found to be positively related with PsyCap and organizational citizenship behavior whereas a significant negative relationship was observed between extraversion and counterproductive work behavior. Similarly, in their cross-cultural study, Brandt, Gomes, and Boyanova (2011) found that extrovert people consistently scored high on positive psychological capital as compared to introverts across the three samples from Bulgaria, Finland, and Portugal.

The inclusion of affectivity in the proposed model of the current study is another step in the direction of establishing the additive value of PsyCap against positive and negative affectivity—the personality traits which have been found to be

the consistent predictors of such core work attitudes as job satisfaction (Judge, Heller, & Klinger, 2008), organizational commitment (Cropanzano, James, & Konovsky, 1993), and work outcomes as burnout (Zellars et al., 2004). Accordingly, this study assumes that after controlling for affectivity, PsyCap would explain a unique variance in proximal as well as distal outcome variables of the proposed model.

Some conjectures can be deduced from the preliminary work of Youssef and Luthans (2011) and other investigators who have suggested that through its influence on internal states such as mood, personality may affect behavior (George, 1991). Some personal dispositions may raise one's emotional vulnerability or receptiveness to environmental stimuli (McCrae & Costa, 1991) which might explain the relationships among affectivity, psychological ownership, and PsyCap. Consistent with the research stream on the interaction of personality and one's emotional vulnerability or receptiveness to environmental stimuli, considerable literature support is available for the fact that people who are high on neuroticism are more likely to respond negatively and experience more strain in relation to problems of everyday life (e.g., interpersonal conflicts; Suls, Martin, & David, 1998; depression in response to daily hassles, Hutchinson & Williams, 2007; memory failures in stressful conditions, Neupert & Mroczek, 2008). Parkes (1990) explored that when high NA individuals perceived high job demands they exhibited higher levels of affective distress as compared to their low NA counterparts, despite the fact that NA was not strongly linked with perceptions of high job demands.

Similarly, Zellars et al. (2004) claimed that neurotic people are more likely to experience unpleasant moods. On the other hand, people who are high in trait positive affectivity (an element of extraversion) are likely to have broader sense of well-being. They are expected to be engaged in pleasurable activities, and they are inclined to feel positive emotional states (Tellegen, 1985). Moreover, various correlational (Zellars et al., 2004; Wright & Staw, 1999) and experimental studies have found (Gomez, Cooper, & Gomez, 2000) a positive relationship between negative moods and neuroticism, and between positive mood and extraversion. Keeping in view this pertinent stream of research, the present study postulates that affectivity should be

treated as control variables in relation to work engagement, burnout, and job related affective well-being. University teachers high on positive affectivity will be more likely to be engaged in their work with higher levels of job related affective well-being whereas faculty high on negative affectivity would be more likely to be burnt-out.

Few studies have investigated the relationship between affectivity and perception of authentic leadership. Despite the fact that numerous studies have identified pertinent implications of leadership styles for various organizational outcomes, very few studies have examined followers' personality attributes as reflectors of differences in leadership (Dvir & Shamir, 2003; Meindl, 1995). Research by Hautala (2005) and Roush (1992) are, however, in contrast with this leader-centered trend. The current study posits that individuals high on negative affectivity would not perceive their leadership as authentic as compared to those who are low on negative affectivity and high on positive affectivity. This hypothesized influence of follower's personality traits on their perception of leadership could be explained through two mechanisms. Firstly, as indicated by several researchers (Ehrhart & Klein, 2001), subordinates' patterns of relationship with their leaders may partly be influenced by their own personal dispositions. Secondly, subjective appraisals of leadership may partly be shaped by persistent individual differences in subordinates' perceptual orientations (Zellars & Perrewe, 2001).

The empirical support for the first mechanism has been provided by Dvir and Shamir (2003) who found that leaders are more likely to adopt a transformational leadership style while interacting with followers who are high on self-esteem, social activity, and initiative. In such situations, leaders are more confident that their followers are possessing suitable attributes for such leadership.

Principle of complementarity also provides theoretical support for the first mechanism (Hetland, Sandal, & Johnsen, 2008). This principle can be explained in terms of affiliation and control, which shape interpersonal behaviors in organizational settings. The particular responses in case of affiliation may range from affability to

antagonism, whereas in case of control the responses may vary from dominance to submission. The complementarity principle suggests that along the facet of affiliation, friendliness induces pleasantness and enmity provokes hostility (Dryer & Horowitz, 1997). In the context of five-factor model of personality, this would imply that transformational leadership might have been stirred by followers who are high on agreeableness (which is conceptually similar to friendliness and warmth; Goldberg, 1992; John, 1990), and extroversion (that can be equated with positive affectivity, see Brief, 1998; Judge, Heller, & Klinger, 2008; Watson & Clark, 1997; Zellars et al., 2004). Consequently, the probability of passive-avoidant leadership may also decline sharply. In the same vein, the probability of passive-avoidant leadership would be increased for followers who are high on neuroticism because the hostility emerging from neuroticism could inhibit the manifestation of a transformational relationship by inducing an antagonistic response in the leader (Hetland, Sandal, & Johnsen, 2008).

Lord and Maher (1991) offer empirical support for the second mechanism by which followers personality traits may influence their perceptions of leadership. They believed that followers' use of cognitive strategies and categories could play an important role in discerning the leadership ratings. This line of reasoning is empirically supported as numerous studies provide empirical evidence that perceptions explain significant portion of variance in ratings of leadership (Lord, Brown, & Freiberg, 1999). Neuroticism (vs. emotional stability) is especially relevant to this. For Costa and McCrae (1987), neuroticism represents individual differences in the inclination to experience negative emotional states. Watson and Pennebaker (1989) described conceptual similarity between neuroticism and NA. There is a reasonably consistent body of literature, which indicated that followers with high NA tend to react with a generalized negative cognitive set towards their own selves and various environmental conditions (Williams, Gavin, & Williams, 1996). Thus, it is expected that neuroticism is related with leader's negative descriptions (Furnham, 1992).

After assuming, in the light of pertinent literature, that PsyCap would be capable of explaining unique variance in the proposed outcome variables of the study

after controlling for the effects of affectivity, the next stage is to identify how the positive psychological resources constituting the PsyCap might be instrumental in developing employees' perception of authentic leadership and psychological ownership. The next section serves the purpose of briefly elaborating these concepts and their relationship with PsyCap.

Authentic Leadership

Luthans and Avolio (2003) proposed the concept of authentic leadership and it was further refined by Gardner, Avolio, Luthans, May, and Walumbwa (2005) and Avolio and Luthans (2006). According to these writers, authentic leadership is a process through which leaders develop a deep sense of awareness about their thinking process and behavioral patterns. They are cognizant of the environment in which they operate, and others perceive them as being mindful of their own and others' standards/ethical perspectives, potentials, and knowledge (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). They ensure their personal authenticity and convey the same to their followers in order to motivate them toward common aims and goals.

Walumba, Avolio, Gardner, Wernsing, and Peterson (2008) conceived authentic leadership as a repertoire of leader behavior that not only inculcates but also support both positive ethical climate and positive psychological capacities, which results in positive self-development when leaders promote greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency among their followers. Literature elucidates authentic leadership as a multidimensional latent core construct comprising of balanced processing, self-awareness, internalization of a moral perspective and relational transparency as its integral components (Walumbwa et al., 2008). Leaders who are aware of the internal and external processes of organizations and influences of their actions on individuals around them can inculcate a better sense of organizational goals/challenges among their followers.

As constituent element of authentic leadership, self-awareness is demonstrated by a leader who is cognizant of her/his weaknesses and strengths and the multidimensional nature of the self. Such a leader knows how s/he descends and makes meaning of the world and how this perceptual process influence the way s/he views himself or herself over time. Relational transparency involves reflecting one's genuine self (in contrast to a forged or distorted self) to others. Such behaviors instill trust through genuine sharing of information and expressions of individual's true thoughts and feelings. Consequently, the expressions of inappropriate emotions are greatly reduced (Kernis, 2003). Leaders who have a balanced perspective on information processing impartially evaluate all pertinent data before making a decision. Such leaders do not hesitate in imploring perspectives that might encounter their profoundly held positions (Gardner et al., 2005). Finally, an internalized and unified form of self-regulation constitutes internalized moral perspective (Ryan & Deci, 2003), which is steered by internalized ethical values and standards rather than the group, social, and organizational pressures. Consequently, decisions made by such leaders are in line with their internalized moral standards (Avolio & Gardner, 2005; Gardner et al., 2005).

Authentic leadership is a very pertinent construct in university settings. Teachers are role models for their students. Therefore, they must be true to their values and must demonstrate in principle as well as in character what they teach to their students. They are essentially the leaders for their students as they motivate, sustain, and head them towards the shared goal of learning and pave the way towards the successful completion of their degrees. Vice chancellors, deans, and chairpersons of various teaching departments have dual responsibilities in this connection. They are not only to serve as teachers, but must also ensure the opportunities for flourishing the positive psychological capacities among their students and faculty. They have to work through their internalized moral perspective, which must be free from all sort of biases so that they can have a balanced processing of information that might result in a positive culture conducive to development of their students and faculty.

As far as the relationship between authentic leadership and PsyCap is concerned, Luthans and Avolio (2003) identified authentic leadership as a process that promotes leaders and followers' positive self-development through enhancing their self-awareness and self-regulated positive behaviors by manipulating their positive psychological capacities in an ethically developed work climate. This early conceptualization of authentic leadership conceived it as comprising of the positive psychological capabilities of hope, self-efficacy, resilience, and optimism, which was criticized by various investigators (e.g., Cooper, Scandura, & Schriesheim, 2005; Shamir & Eilam, 2005; Sparrowe, 2005). However, Walumba's et al. conceptualization of authentic leadership, which provides the theoretical perspective of the construct in the present study, conceives that ethical climate and positive psychological capacities are not constituent elements of authentic leadership, nevertheless they have a reciprocal relationship with the development of authentic leadership.

Positive psychological capacities has a direct bearing upon the development of authentic leadership as Luthans and Avolio (2003) argues that psychological capacities play a very important role in the self-development of the individual by supporting the growth of self-identity. This, in turn, provides the mechanism of development of authentic leadership. The theoretical model of authentic leadership incorporates followers and leaders' attributes as well as leader's behaviors. Thus, leaders and followers' levels of psychological capital may provide us with a more integrative approach towards the understanding of leadership and organizational behavior (Luthans, Norman, & Hughes, 2006).

According to Luthans and Avolio (2003), our positive psychological capacities (psychological capital) partially reflect our sense of authenticity, whereas Gardner et al. (2005) reasoned that trust is developed through authentic relations with followers. Empirical research linking authenticity to organizational performance is relatively scarce despite ethicists' claims that leaders who are true to their norms and values are more likely to succeed. Nevertheless, preliminary findings revealed that authentic leadership at individual level is positively related to follower commitment, follower

organizational citizenship behaviors, follower performance, and follower satisfaction with the leader (Walumbwa et al., 2008). These potential corollaries of authentic leadership can only be achieved if followers perceive their leaders as authentic (Clapp-Smith, Vogelgesang, & Avey, 2009). Thus, the present study operationalizes authentic leadership in terms of followers' perceptions of their leaders.

Authentic leadership has also been implied in work engagement. While remaining committed to their values and beliefs, authentic leaders endeavor to attain honesty and openness in their relationships with followers (Gardner et al., 2005; Kernis, 2003). Such leaders exhibit transparent decision making while leading by example (Avolio & Gardner, 2005). While highlighting the similarities between ethical and authentic leaderships, Brown, Treviño, and Harrison (2005) maintained that such leaders are more likely to be effective role models for their followers because their trustworthiness draw their followers' attention to their modeled behavior. Steering by example guides the followers about how to remain cognitively alert and emotionally and physically connected during job performance since leader himself/herself sets examples of commitment to his or her work. Thus, through observational learning (Bandura, 1977), followers' levels of work engagement are likely to be raised. Finally, Walumbwa, Wang, Wang, Schaubroeck, and Avolio (2010) established that authentic leadership predicted work engagement, while company type, followers' age and sex, supervisor-reported organizational citizenship behavior, and power distance were statistically controlled. They also demonstrated that employees' feeling of empowerment and their level of identification with their supervisors mediated these relationships.

Authentic leadership has also been related to psychological ownership. Though literature on the direct relationship between authentic leadership and psychological ownership is quite scarce, research evidence on transformational leadership (Avolio, Walumbwa & Weber 2009, Luthans & Avolio 2003, Price 2003) suggest that transformational leaders are more likely to enhance promotive psychological ownership (Avey, Avolio, Crossley, & Luthans, 2009). Furthermore, authentic leadership is closely related to psychological capacities of resilience,

confidence or self-efficacy, hope, and optimism (Luthans & Avolio, 2003). Self-efficacy is a constituent element of promotive psychological ownership. Authentic leadership may undermine the need for preventive psychological ownership since it strives to develop and maintain a positive ethical climate within an enriched organizational context (Avolio et al. 2009). To date, the only published study that has empirically tested authentic leadership in relation to psychological ownership and work engagement found that organization-based promotive psychological ownership fully mediated between authentic leadership and work engagement of employees (Alok & Israel, 2012).

Authentic leadership has also been related with various desirable work attitudes and work outcomes. For instance, Walumbwa et al. (2008) demonstrated that authentic leadership was positively associated with followers' job satisfaction, organizational commitment, citizenship behavior, and job performance. Abid, Altaf, Yousaf, Majid, and Bagram (2012) found that perception of authentic leadership was positively associated with job satisfaction and organizational commitment among Pakistani entrepreneurs. Similarly, in their qualitative study of university teachers of the Punjab and KPK provinces of Pakistan, Hassan et al. (2013) found that followers of authentic leaders are more committed to their organizations because authentic leaders have the potential of spawning an ethical work climate characterized by collective moral judgment. Studies on the relationship between leadership and organizational citizenship behaviors have consistently demonstrated their positive association (for a review, see Organ, Podsakoff, & MacKenzie, 2006) because whatever leader values and emphasizes, followers are likely to indorse the same (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005). Theory of authentic leadership suggests that authentic leader behaviors are likely to create an open and transparent work environment that may induce employees' willingness of engaging in behaviors that support the organization even when these behaviors are not part of their specified job roles (Avolio & Gardner, 2005; Brown, Treviño, & Harrison, 2005). Authentic leaders emphasize the value of open information sharing and they foster helping behaviors among their followers by making them more aware of the significance of helping one another (Walumbwa, Wang, Wang, Schaubroeck, &

Avolio, 2010). This line of reasoning also enjoys empirical support as studies of Brown et al. (2005) and Mayer, Kuenzi, Greenbaum, Bardes, and Salvador (2009) found significant positive association between ethical leadership—a core constituent of authentic leadership and organizational citizenship behavior. Walumbwa et al. (2010) demonstrated that authentic leadership was a significant predictor of self-rated work engagement and supervisor-rated organizational citizenship behavior even when company type, ideal power distance, and followers' demographics were controlled for. Given that psychological capital and authentic leadership are important predictors of psychological ownership, work engagement, and important work behaviors, it is the high time to present a concise review of these constructs.

Psychological Ownership

Avey, Avolio, Crossley, and Luthans (2009) suggested that psychological ownership should be conceived within the context of evolving literature on positive organizational behavior (POB). Besides sharing a sense of positivity and an urge for achievement with the POB constructs, psychological ownership also meets Luthans' (2002a, 2002b) POB inclusion criteria of being measureable, developable, and manageable for improving performance in the workplace. Thus, it should be conceived as a positive psychological resource just like other psychological resources. Despite the fact that researchers have started to explore relationships between psychological ownership and preferred work and organizational outcomes such as organizational citizenship behaviors (Pierce, Kostova, & Dirks, 2003), further theoretical refinement in the conception of psychological ownership and empirical approaches towards its study are warranted (Avey et al., 2009).

Grounded in literature on possession and ownership, Pierce, Kostova, and Dirks (2001) reasoned that ownership feelings are innate among human beings. These feelings can be developed toward both tangible and intangible objects and they may significantly influences one's emotions, attitudes, and behaviors. These inferences provide us with important theoretical vantage points from where psychological ownership and its proposed outcomes are conceived in the present study.

Psychological ownership may be delineated as a psychological phenomenon whereby an individual evolve possessive feelings towards the target (Van Dyne & Pirce, 2004). Psychological ownership has the potential of explaining unique variance in work-related outcomes against the already established attitudinal constructs like commitment and satisfaction. Thus, the possessive nature of psychological ownership for the organization not only distinguishes it from other job-related attitudes but also serve to enhance our insight into employee's attitudes and behaviors at work. Alternatively, we may infer that psychological ownership has an essentially different theoretical ground (possession) because of which it should have its own unique explanatory power (Van Dyne & Pierce, 2004) despite the fact that it is related to other work related attitudes. Pierce et al. (2001) conceived feelings of possession as integral part of psychological ownership whereby it is perceived that an object (i.e., tangible or intangible) is possessively experienced (i.e., it's 'MINE' or it is 'OURS'). Pierce et al. (2001) conceived feelings of possession as integral part of psychological ownership whereby it is perceived that an object (i.e., tangible or intangible) is possessively experienced (i.e., it's 'MINE' or it is 'OURS').

Using the commonly phrased expressions that communicate feelings of possession such as 'He is MY son,' or 'That is OUR home!', Pierce et al. (2001, 2003) elaborated that psychological ownership is an attitude with both cognitive and affective aspects. This is quite in line with empirical research on attitudes (Breckler & Wiggins, 1989). This conception of psychological ownership is also supported by Weiss and Cropanzano's (1996) affective events theory, which argues that beliefs about the job should be differentiated from affective experiences at job. Psychological ownership is not limited to the cognitive evaluation of the organization rather it also incorporates an affective attachment to the firm. This merger of ownership feelings and feelings of possession can be developed for the whole organization (or workplace) or its specific facets like one's work tools (i.e., a production machine or a computer), work group or team, and job or work itself. Depending upon individual attributes and situational characteristics, different targets of ownership can vary in their value. Some employees, for instance, have psychological ownership for the overall organization whereas others might experience possessive feelings for their

work (Van Dyne & Pierce, 2004). In the present investigation, psychological ownership for the organization is the focus of study.

Literature on psychology of possession suggests that psychological ownership results in positive attitudes toward the target, enriched self-concept, and increased sense of accountability (Furby, 1978, 1991). This sense of possession allows individuals to satiate their basic needs for place, efficacy and effectance, and self-identity, which leads to positive work-related attitudes such as satisfaction and commitment, organizational-based self-esteem, and behaviors such as extra role and in-role performance (Van Dyne & Pierce, 2004).

From the perspective of Higgins' (1998) regulatory focus theory, psychological ownership as a construct appears to have two distinct forms namely promotion focused psychological ownership and prevention focused psychological ownership. Higgins suggested that we regulate ourselves through promotive and/or preventative self-regulations systems. People who regulate themselves through promotion focused self-regulation mechanism are more likely to focus on achievements and ambitions and are more daring in taking risks during their strivings. In contrast, individuals who regulate themselves through the preventative mode of self-regulation are more likely to experience feelings of anxiety and irritation since they are more concerned with their responsibilities and obligations (Kark & Van Dijk, 2007). For Higgins (1998), self-regulation defines how people choose goals. Individuals who operate with a promotion-focused approach undertake goals in order to accomplish their confidence and ambitions. Contrarily, those who espouse prevention goals are more likely to stick with rules and regulations for eliminating the chances of reprimand. These contradictory motivations constitute the source of energy for pursuing all goals (Kluger, Stephan, Ganzach, & Hershkovitz, 2004).

Higgins (1998) suggested that for human survival, we need both prevention and promotion approaches and both of them have their survival benefits in various context. A promotion focus, for instance, might be necessary to provoke progress and development whereas preventative focus is more desirable when people are striving

for predictability, security, and stability. Liberman, Idson, Camacho, and Higgins (1999) have also demonstrated that difference in focus of regulation is associated with the valance of ingenuousness to change (promotion) and preservation (prevention). People operating with promotion focus are more disposed to share objects in their possession as compared to the individuals who are predominantly preventative in their focus.

The implications of Higgins' theory in the realm of psychological ownership reveal that individuals with different regulatory foci are likely to experience quite different feelings about the object of their possession. For instance, a manager having promotive psychological ownership who conceives development in the company as personally fulfilling is likely to share information ''s/he owns'' about a recent successful project with teams in a different division of the company. Contrarily, a manger whose focus is primarily preventative in nature is expected to cautiously scrutinize and withhold information from others in order to ensure stability and avoid change (Avey et al., 2009).

Components of Psychological Ownership. Psychological ownership seems to be a super ordinate construct, as it comprises of five dimensions including belonging, self-efficacy, accountability, self-identify, and territoriality (Avey et al., 2009).

Self-efficacy. The conception of self-efficacy has already been described in relation to psychological capital (see p.14). Here, self-efficacy is being discussed as a component of psychological ownership. White's (1959) early view of possession and ownership suggested that individual's need for effectance might have been related to one's feelings of ownership in an intricate fashion. Furby (1991) noted that the drive to regulate objects and to be operative with their application might give rise to ownership feelings even in children. This autonomy to regulate one's course of actions is an important element that spawns self-efficacy feelings (Bandura, 1997) which in turn may lead to enhanced feelings of psychological ownership about a specific process, task, and procedure. Thus, according to Avey et al. (2009), self-

efficacy as component of psychological ownership appears to say ‘‘I am required to undertake this task, I have the potential to execute it, and I am accountable for its successful accomplishment”.

Accountability. Accountability refers to ‘‘the implicit or explicit expectation that one may be called on to justify one’s beliefs, feelings and actions to others’’ (Lerner & Tetlock, 1999, p. 255). Accountability as a constituent element of psychological ownership can be explained through two mechanisms: (1) the likelihood that one’s own self can be held accountable and (2) the anticipated right to hold others responsible.

People who are high on psychological ownership are expected to call others to be responsible for their targets of ownership. This expected right to hold others accountable results in an increased likelihood of information sharing and permission to influence the direction of the target. Secondly, besides the expected rights of holding others accountable, individuals with greater sense of ownership may demonstrate a feeling of burden sharing while assuming certain responsibilities for themselves. When an individual identifies targets of ownership with his/her own self, what happens to those targets has certain repercussions for what one perceives to happen to one’s own self. The same theme is also reflected in Pierce et al.’s (2003) theorization of self-sacrifice and stewardship behaviors, which embody sense of psychological ownership.

Belongingness. In the context of ownership in an organization, belongingness may be conceived as a feeling that one belongs to the organization. People’s social and socio-emotional needs for belongingness are satiated by ‘having a place’ when they feel that they are the owners and important stakeholders of their organizations, This need of belongingness with workplace may be fulfilled by a specific task, team, organization, work division or unit, or the trade as a whole (Avey et al., 2009).

Self-identity. Research evidence suggests that possessions (Belk, 1988; Rousseau, 1998) and groups (Abrams & Hogg, 2004) serve as symbols through which

individuals identify themselves. Particularly, employees' self-identity is created, sustained, reproduced, and changed through their interaction with material possessions (Dittmar, 1992) and immaterial possessions such as the firm or goals (Rousseau, 1998). For instance, individuals may describe themselves as a yacht owner, a fighter pilot, or a professional racer of sports cars. These ownership targets usually symbolizes one's identity. Owning these entities psychologically, may provide a vantage point from where individuals can delineate their identities as distinctive, which ultimately constitutes their personal identity (Avey et al., 2009).

On account of their strong drive to identify with their work settings (Ashforth & Mael, 1989), people may also identify with their company, purpose, or mission (Rousseau, 1998) besides targets such as a work team, objects, or a job. Tajfel's social identification theory posits that in addition to being calculative, humans being love to express their values and feelings (Tajfel & Turner, 1986). Albert, Ashforth, and Dutton (2000) proposed that individuals gain a sense of meaningfulness and belongingness through internalizing the organizational identity, which serve to define them. Thus, multiple levels of psychological ownership can be experienced over a target because it aligns with and supports peoples' self-identities and their values.

In short, as people mature, they acquire the skill to identify what belongs to them and what is not theirs. Objects that are identified as an expansion of the self, take on such crucial valence to one's self-identity as individuals define themselves through these objects (Belk, 1988). Moreover, these entities make individuals feel accountable for decisions and serve as indicators of self-efficacy. Lastly, an individual's need for a ''home'' satisfy his/her need for belongingness where entities of his/her ownership can be integrated. Hence, promotive psychological ownership is a multi-faceted concept constituted by the aforementioned four factors: accountability, sense of belonging, self-efficacy, and self-identity.

Territoriality as a dimension of psychological ownership. According to Brown, Lawrence, and Robinson (2005), organizational members may have the tendency to become territorial over roles, physical workspaces, relationships, ideas,

and other potential possessions in organizations. Conceptualizing territoriality as a political tactic or self-serving may undermine its significance to employees in contemporary work settings. In organizational context, when sense of ownership for informational, physical, or social entities is ripened, employees may wish to classify those entities as solely theirs. Moreover, employees may also engage in defensive territoriality for sustaining their ownership if they expect any infringements and usually make their ownership explicit to probable dangers and the social milieu as a whole.

While formulating the theoretical grounds of territoriality, Brown et al. (2005) conceived territoriality as being behavioral and proposed a positive linear relationship between psychological ownership and territorial behaviors. However, in consonance with Pierce et al.'s (2001) view of psychological ownership, the present study operationalizes territoriality as a prevention focused form of ownership, which emphasizes cognitive features rather than behavioral manifestations.

Two unique factors that differentiate between territoriality and psychological ownership are being defensive and the utilization of external reference. When people are afraid that extraneous factors may influence their entities of ownership, feelings of territoriality are amplified. In such situations, people label their territory by demonstrating a more prevention-focused mode of ownership in ways that they conceive recognizable and respectable for the external factors. Territorial feelings, for instance, may lead people to be proactive in their approach through which they may stop infringement actions of others even before they actually happen (Brown, Lawrence, & Robinson, 2005). This suggest that territoriality feelings may involve both an internal (the self) and/or external object (e.g., potential infringer) (Brief & Weiss, 2002). Rather than supporting the progress of the whole work team, territoriality appears to be defensive (e.g., reactionary defenses to preclude imminent infringements, labelling territory, and using protective defenses to avoid contravention).

Owing to their preoccupations with ‘‘objects of ownership,’’ people with more preventative mode of ownership are likely to put their performance or other prosocial behaviors at stake. In addition, they are afraid of losing their territory and the allied sense of identity, which halts their potentials of collaborative work, sharing of information and transparency at work, which may initiate organizational politics. Albeit these negative consequences, it is also plausible that territoriality may induce certain desirable corollaries in organizational settings. For instance, when individuals conceive that defending their territory is the right way, their performance and retention may improve (Altman, 1975). This phenomenon is more pronounced when an employee is solely responsible for his/her work rather than being a team player. A sales agent owning a specific territory, for instance, may benefit from his/her territorial orientation in terms of performance and sales objectives. Alternatively, it may be inferred that despite all of its negative implications, preventative mode of ownership may have a positive side.

Psychological Ownership and Work Outcomes

Psychological ownership is relatively a new construct; therefore, literature on the relationship of psychological ownership with important work outcomes is relatively scarce. Nevertheless, the available empirical research evidence suggests that psychological ownership may result in certain desirable work attitudes and behaviors. For instance, in a sample of Malaysian university teachers of business schools, Md-Sidina, Sambasivana, and Muniandya (2009) found that psychological ownership was positively related with desirable work attitudes such as job satisfaction and organizational. They further reported that psychological ownership also influenced faculty members’ job performance, which they operationalized in terms of teaching, publications, and editorial, supervisory, and professional services. Similarly, in their three filed studies across a broad cross section of occupation, Van Dyne and Pierce (2004) noted that psychological ownership for the organization positively predicted desirable employee’s attitude such as organization based self-esteem, organizational commitment, and job satisfaction. They also found that psychological ownership not only had a progressive impact on job performance and citizenship behaviors but it

also explained unique variance in organization based self-esteem and organizational citizenship behavior beyond the influence of job satisfaction and organizational commitment. Mayhew, Ashkanasy, Bramble, and Gardner (2007), however, found that psychological ownership positively predicted work attitudes of organizational commitment and job satisfaction but it did not predict work behaviors of in-role and extra role performance. Finally, Ghafoor, Qureshi, Khan, and Hijazi (2012) found that psychological ownership mediated the relationship of work engagement and transformational leadership with job performance among employees of telecommunication sector of Pakistan. These research evidences paved strong grounds for incorporating psychological ownership and authentic leadership as perceptual variables on individual's cognitive level, which may be instrumental in the development of positive work attitudes of work engagement. The next section will provide a concise review of work engagement.

Work Engagement

Work engagement has been the center of growing attention in recent years as research in positive organizational phenomena has expanded and has a particular relevance with positive organizational behavior. According to Bakker, Schaufeli, Leiter, and Taris (2008), work engagement is a progressive and gratifying affective-motivational state of job-related well-being that may be conceived as antagonist to job burnout. Employees who are engaged in their work are quite energetic and peruse their jobs so enthusiastically that they are usually so engrossed in their work that time passes swiftly (Macey & Schneider, 2008; Schaufeli & Bakker, 2008) Instead of perceiving their work as stressful and demanding, engaged employees conceive their jobs as challenging because they have a sense of enthusiastic and active association with their work.

Amusingly, research on burnout has stirred most recent investigations of work engagement. Owing to their feelings of involved and efficient association with their work, engaged employees perceive their work as challenging contrary to burnt out

employees who conceive their jobs as taxing and arduous. Two unique but associated paradigms conceive work engagement as a progressive, work-related state of fulfillment. For Maslach and Leiter (1997), engagement is symbolized by vigor, efficacy, and involvement, which are the antipodes of burnout facets. They contend that, when burnout syndrome develops, involvement turns into cynicism, energy into exhaustion, and efficacy into ineffectiveness. This implies that engagement should be operationalized by the reverse array of scores on three factors of the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996).

The alternate paradigm views work engagement as a separate and unique construct, which is negatively associated with burnout. Accordingly, work engagement is conceptualized and assessed in its own place as a fulfilling, progressive, work-related state of mind that is constituted by vigor, dedication, and absorption (Schaufeli, Salanova, Gonza´lez-Roma, & Bakker, 2002). This implies that contrary to burnout where voids of life make people feel empty, engagement is symbolized by the fulfillment. Vigor can be defined in terms of high levels of vitality and psychological resilience while working, whereby one is willing to devote one's efforts in one's work, and persists in one's pursuance of goals even in the face of adversities. Dedication can be conceived in terms of one's strong involvement in one's work, whereby one experiences a sense of meaning, passion, motivation, dignity, and challenge. Absorption is delineated by full concentration and delightful immersion in one's work because of which disengaging oneself from one's work becomes quite difficult and time flees at a rapid speed. Thus, dedication and vigor are viewed as antipodes of cynicism and exhaustion, respectively, the two principal domains of burnout.

The band constituted by exhaustion and vigor is termed as ''energy,'' whereas the continuum ranging from dedication to cynicism is considered ''identification'' (Gonza´lez-Roma, Schaufeli, Bakker, & Lloret, 2006). Therefore, high standards of vigor and consolidated identification with one's work delineates work engagement. In contrast, the reverse is true for burnout, which is reflected through poor identification with one's job and diminished levels of vigor (see also Demerouti & Bakker, 2008).

Additionally, conceived from the outputs of in-depth interviews (Schaufeli et al., 2001), absorption was incorporated as the third essential element of work engagement. The present study has operationalized work engagement as an independent construct comprising of vigor, dedication, and absorption as conceptualized by Schaufeli, Salanova, Gonza´lez-Roma, and Bakker (2002).

This conceptualization of work engagement is especially relevant to the profession of university teaching. A motivated teacher dedicated to her/his profession can create collaborative, meaningful, and engaging learning environment. The positive feedback from such learning environment may serve to sustain this fulfilling state. University teaching is very demanding job and faculty can only cope with the challenging strains of this profession through their personal resources such as psychological capital and job resources such as job autonomy, support from their heads of department or deans, and positive feedback from their performance evaluations. An engaged university teacher get herself/himself immersed in her/his work to the extent that s/he goes beyond the prescribed job role to serve her/his university through multitudes of citizenship behaviors. Interestingly, this incited state spawns feeling of job related affective well-being, which in turn accentuate her/his, work engagement in a reciprocal fashion.

Kahn's (1990) conceptualization of work engagement is somewhat different. He conceived engagement as the process of harmonizing employees' selves to their work roles whereby employees invest and articulate themselves on physical, cognitive, and affective levels during their assigned jobs. Thus, engaged employees' identification with their work motivates them to put extra efforts into their work. Kahn asserts a vibrant, reciprocal relationship between the person who invests personal capabilities (emotional, physical, mental, and cognitive) into his or her work role and the work role itself, which permits his/her articulation at work. Kahn (1992) distinguished engagement from the concept of psychological presence as he conceived engagement as the motivating force in one's work role and its behavioral manifestations can be considered as reflection of psychological presence, which is a specific psychological state.

Grounded in the work of Kahn (1990, 1992), Rothbard (2001) viewed engagement somewhat differently and explained it as a motivational two-dimensional construct comprising of absorption (reflecting one's degree of concentration on one's role) and attention (reflecting amount of time one devotes in thinking about one's role and ones' levels of mental readiness).

Despite the apparent multiple conceptualization of work engagement, there is a strong agreement among scholars that engagement comprises of an energy continuum and an identification continuum. Work engagement is delineated by consolidated identification with one's work and greater amount of energy (Bakker et al., 2008). For Bakker et al. engagement is a distinct, well defined, and appropriately assessed psychological construct that lends itself beautifully to scientific research and pragmatic applications.

Though the empirical work on engagement is still in its infancy, research evidence on the relationship between work engagement, personal, and job resources is consistent. Past research has reliably demonstrated that job resources such as skill variety, feedback, social support, autonomy, and learning opportunities are directly linked with work engagement (Bakker & Demerouti, 2008; Halbesleben, 2010).

Many investigations that have concentrated on personal resources as important precursors of work engagement have indirectly assessed the link of Positive Organizational Behavior (POB) and work engagement. Since POB framework is also based upon the state-like psychological resources, its inclusion in a study of POB is empirically warranted. Personal resources include positive self-evaluations such as self-efficacy and resilience (Hobfoll, Johnson, Ennis, & Jackson, 2003). Judge, Van Vianen, and De Pater (2004) has demonstrated in their review that such positive self-evaluations are strong predictors of performance, goal setting, job and life satisfaction, motivation, and other desirable outcomes. This relationship can be explained by the fact that a person with large reservoir of personal resources is much more likely to possess greater sense of goal-self symphony and positive self-evaluations (Judge, Bono, Erez, & Locke, 2005). The harmony between goals and the

self is exhibited in people who are intrinsically motivated to chase their aims, which in turn may lead to higher satisfaction and performance (see also Luthans & Youssef, 2007b).

Many researchers have studied the association between work engagement and personal resources. For instance, Storm and Rothmann (2003) noted that police officers who were high on work engagement were expected to have an active coping style. They were more likely to stay focused on their problems while taking dynamic steps to eliminate or reorganize stressors. Furthermore, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) examined the relationship of three personal resources (organizational-based self-esteem, optimism, and self-efficacy) with work engagement among highly skilled Dutch technicians. They found that engaged employees are highly self-efficacious and believe that they can meet the challenges across a broad range of contexts. They also observed that engaged employees have higher expectations of generally experiencing positive outcomes in their lives (optimistic). Finally, engaged workers consider that acting out their organizational roles may satiate their needs (organizational-based self-esteem; see also Mauno, Kinnunen, & Ruokolainen, 2007).

Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009a) found similar results in their 2-year longitudinal research. The results suggested that organizational-based self-esteem, self-efficacy, and optimism explain a unique variance in work engagement over time, over and above the effects of previous levels of engagement and job resources. As another empirical instance, Bakker, Gierveld, and Van Rijswijk (2006) found that female school principals with largest reservoirs of personal resources demonstrated highest levels of work engagement. Particularly optimism, resilience, and self-efficacy explained unique variance in engagement (besides social support from the intimate partner, prospects for growth, and social support from colleagues and principals).

Employees with high levels of work engagement also appear to be different from other employees as they are richer in personal resources of self-esteem,

optimism, resilience, self-efficacy, and an active coping style. These personal assets may facilitate engaged employees in regulating and influencing their work environment more effectively (see also Luthans, Norman, Avolio, & Avey, 2008). As evident by the aforementioned studies, various positive psychological capacities have been studies in relation to work engagement but none of the studies incorporated PsyCap as a superordinate construct that might have the potential of explaining unique variance in work engagement above and beyond the variance explained by the individual positive psychological capacities. Furthermore, no study has yet focused upon the role of hope in work engagement. The present study is an empirical endeavor to explore the relationship between PsyCap as a superordinate construct and work engagement besides examining the relationship of individual psychological capacities with work engagement.

Another important criterion that makes work engagement especially relevant to the positive organizational behavior is its impact on job performance and organizational effectiveness. Bakker (2011) outlines four reasons of expecting better performance from engaged workers as compared to their non-engaged counterparts. Engaged workers are (i) more likely to undergo positive affect such as joy, happiness, and enthusiasm; (ii) they have more opportunities of having improved mental and somatic health; (iii) they can generate their own personal and job resources (e.g., support from others); (iv) and they possess the capability if transferring their engagement to others. Good health assists in demonstrating optimal performance because healthy individuals can utilize the whole repertoire of their physical and psychological resources (knowledge, skills, abilities, etc.) whereas positive emotions widen people's cognitive and behavioral repertoire (Fredrickson, 2003). Furthermore, work goals are better achieved through active coping with stressors at work by employees who can create their own resources (Bakker & Demerouti, 2007). Finally, organizational performance is mostly operationalized in terms of joint work of individual employees. It is therefore quite likely that the contagion effect of engagement among participants of the same work team may enhance performance.

Literature on the association between job performance and work engagement is relatively scarce (see Bakker & Demerouti, 2008). However, the findings of the pertinent research appear to be quite encouraging. Bakker, Demerouti, and Verbeke (2004) observed that engaged workers demonstrated higher levels of in-role and extra-role performance as determined by ratings from their colleagues. Further, among Dutch employees of various occupations, Schaufeli, Taris, and Bakker (2006) observed that work engagement was directly associated with in-role performance. These outcomes were further confirmed and later on expanded in another research by Gierveld and Bakker (2005) who noticed that secretaries having higher levels of engagement demonstrated higher levels of citizenship behaviors and in-role performance. These authors further observed that secretaries with higher levels of engagement were more influential in terms of daily business. They were requested to undertake additional tasks such as managing trade exhibitions and symposia, personnel pre-selection, and website maintenance more frequently than their less engaged counterparts did.

In their study of personnel working in Spanish restaurants and hotels, Salanova, Agut, and Peiro´ (2005) found a full mediation model whereby work engagement and organizational resources predicted service climate, which in turn was related to employees' performance and then customer loyalty. Similarly, Xanthopoulou, Bakker, Demerouti, and Schaufeli's (2009b) diary study of employees of a Greek fast-food restaurant revealed that daily levels of work engagement were positively associated with objective daily fiscal returns. Finally, Bakker and Bal's (2010) weekly work engagement study of teachers elucidated a positive association between weekly work engagement and job performance. In conclusion, research evidence is supportive of the relationship between work engagement and performance. Employees who are passionate about their work and feel vigorous and strong are more likely to demonstrate better in-role performance and citizenship behavior. Consequently, engaged workers have more gratified clientele and they achieve better monetary returns.

The proposed model of the current investigation presumes that the motivational state of work engagement would make university teachers exhibit enhanced organizational citizenship behavior, job related affective well-being, and in-role performance with diminished levels of burnout, and counterproductive work behaviors.

Organizational Citizenship Behavior (OCB)

Today, as universities in Pakistan are moving through a new era of reorganization, operationalizing performance in terms of particularized task roles—is necessary but not sufficient for predicting efficiency of a university. Therefore, universities will have to increase their reliance on faculty members who are willing to invest extra efforts beyond their ascribed job requirements. Alternatively, universities have to recruit and maintain teachers who are more likely to engage in Organizational Citizenship Behavior (OCB). OCBs refer to behaviors that transcends official job role demands, and are geared toward the organization as a unit, the team, and the individual, for the sake of promoting organizational goals (Somech & Drach-Zahavy, 2000). This conceptualization of teachers' OCB emphasizes three main aspects of extra-role behaviors. Firstly, the behavior must not be demanded by the formal role-prescribed or the official job duties, that is, it should be voluntary. Secondly, a citizenship behaviors is never purposeless, rather it is always directed towards the betterment of the organization. Thirdly, this definition assumes that OCB is a multi-faceted construct. Despite scholars' agreement on the multidimensionality of this construct, there is no consensus about its various dimensions in pertinent scientific literature.

Borman and Motowidlo (1993) viewed OCB as activities at work, which have more profound influence on social, organizational, and psychological environment of technical core of the organization rather than the technical core itself. Bogler and Somech (2004), however, argued that OCBs have direct influence on both technical core of the organization and its social and psychological environment. For Bogler and Somech, teachers who are high on OCB are more likely to facilitate students in

preparing their class materials, setting up learning programs for supernumerary teachers, procuring skills in new areas that add value to their work, helping absent coworkers by allocating learning tasks to their classes, preparing special assignments for higher- or lower-level students, volunteering for school teams, and working collectively with others. These OCBs are associated with the technical core of the organization and facilitate in achieving the organization goals. This is revealed through extra role behaviors of teachers when they are undertaking roles and obligations that are not part of their formal jobs, arranging social activities for their educational institution, structuring collaborative activities with parents above the norm, and by proposing novel suggestions for improving the educational institution.

Somech and Drach-Zahavy (2000) developed a three-dimensional construct of OCB in context of educational institutions which included (a) OCB targeted at students, which include behaviors that are directly and deliberately aimed at refining the teaching quality (e.g., augmenting the capability to cope with students' special needs, learning skills in new subjects that add value to teaching); (b) OCB targeted at the team level, which incorporates behaviors purposely aimed at assisting a particular teacher (e.g., orienting new teachers, facilitating other teachers having heavy workloads,); and (c) OCB targeted at the organization as a whole, which includes more objective and subtle forms of behaviors that do not result in instantaneous help to any particular person but are aimed at benefitting the whole organization (e.g., proposing innovative recommendations to enhance the academic standards of educational institution, volunteering for unpaid tasks).

Theoretical and empirical work in the area of organizational citizenship behaviors generally proposes two broad domains of OCB (Williams & Anderson, 1991): Organizational Citizenship Behaviors Targeted at Individuals (OCB-I), behaviors that instantly help specific individuals and thus secondarily promote the organization, and Organizational Citizenship Behaviors Targeted at Organization (OCB-O), behaviors that aim at improving the organization as a whole. For instance, in case of teachers, OCB-I could be facilitating a coworker with heavy workload or remaining after school hours to assist a student with learning materials. OCB-O might

comprise undertaking unpaid tasks, or proposing novel recommendations for improving the school (Bogler & Somech, 2005). Skarlicki and Latham (1995) also provided empirical evidence for a similar two-factor structure, (organizational and interpersonal) that lie beneath the organizational citizenship behaviors among university teachers. The difference between these two dimensions is imperative because both these forms of OCB may have different precursors (e.g., McNeely & Meglino, 1994; Somech & Drach-Zahavy, 2004).

Other conceptualizations of dimensional structures of OCB embrace altruism, sportsmanship, civic virtue, conscientiousness, and courtesy (for a critical meta-analytical review, see LePine, Erez, & Johnson, 2002). Important predictors of include positive attitudes, motivation, and positive individual dispositions (Organ & Ryan, 1995) as well as organizational attributes such as procedural justice and organizational support (Moorman, Blakely, & Niehoff, 1998). Empirical research also augments the interaction between individual-level positive states and personality traits is an important predictor of frequency as well as constancy of engaging in OCBs (Ilies, Scott, & Judge, 2006).

Several important constructs of positive organizational behavior such as psychological capital, authentic leadership, and work engagement are linked to organizational citizenship behavior. In their empirical investigation, Avey, Wernsing, and Luthans (2008) found PsyCap as significant predictor of organizational behavior. In the same study, it was also noted that the association between PsyCap and organizational citizenship behavior is fully mediated by the positive emotions experienced by the employees. This has been consistent with the previous studies of Staw and Barsade (1993) and Wright and Staw (1999), which documented a positive linear linkage between social integration in the organization and positive emotions, which may results in enhanced engagement and citizenship behaviors. Finally, Avey et al. (2008) concluded that individuals who are rich in PsyCap are inclined to experience positive emotions, which may result in enhanced engagement and reduced cynicism. This in turn leads to more frequent citizenship behaviors and occasional deviant behaviors.

Certain leadership styles have also consistently been linked with organizational citizenship behavior. Organ, Podsakoff, and MacKenzie's (2006) review of literature on OCB suggested a stable and significant relationship between leadership behaviors and OCB across all the studies these authors examined. The reason underlying this association originates from the fact that followers are expected to portray what a leader accentuates by his or her conduct (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005). Authentic leadership augments a transparent and friendly work milieu, which is contributive to employees' enhanced willingness for engaging in behaviors, which promote organizational goals even if these behaviors are not mandatory for them as per their ascribed job roles (Brown, Treviño, & Harrison, 2005). Leaders who are conceived as more authentic have a pivotal role in assisting followers' prosocial behaviors by making them more cognizant of the significance of helping one another and establishing the worth and security of open information sharing system. Certain empirical studies have provided supportive evidence for this link. For instance, studies of Brown et al. (2005); and Mayer, Kuenzi, Greenbaum, Bardes, and Salvador (2009) delineated a positive association between citizenship behaviors and ethical leadership—a primary constituent of authentic leadership. Other studies have also demonstrated a positive linear association between one's authentic and credulous relationships with one's supervisors and one's extent of engaging in OCB (Organ, Podsakoff. & MacKenzie, 2006). Finally, Walumbwa, Wang, Wang, Schaubroeck, and Avolio (2010) showed that authentic leadership behaviors explained unique variance in in self-reported work engagement and supervisor-rated OCB beyond the influence of ideal power distance, organization type, and followers' age and sex. Followers' sense of empowerment and their level of identification with the leader mediated these relations.

Work engagement has been explored as a potential antecedent of OCB in a couple of recent studies (Ariani, 2013; Rich, Lepine, & Crawford, 2010; Schaufeli & Bakker, 2004; Sonnentag, 2003). Social exchange theory and the principle of reciprocity provides one cogent explanation of positive association between engagement and OCB. Employees may engage in OCB because it involves an affective element (Bennett & Robinson, 2000). This likelihood is at par with theories

that propose extra role behavior as the direct consequence of employee emotion (Miles, Spector, Borman, & Fox, 2002). Saks (2006) interpreted the positive association between engagement and OCB in terms of social exchange theory (SET). SET proposes that credulous and devoted relationship and mutual obligations can be better realized if both parties observe the exchange rules (Cropanzano & Mitchell, 2005). Thus, employees carry on exhibiting OCB because they expect favorable reciprocal barters. Consequently, engaged employees have greater opportunities of developing genuine and high-quality relationships with their supervisors, which in turn may enhance their likelihood of experiencing more favorable attitudes and intentions toward the organization. These positive attitudes and intention may get translated citizenship behaviors and in-role performance.

Job Related Affective Well-being

According to Ryan and Deci (2001), well-being is peak psychological functioning and experience. It may be differentiated in terms of hedonic well-being and eudemonic well-being (Ryan & Deci, 2001; Ryff & Keyes, 1995). Hedonic well-being is the more typical operationalization of well-being, consisting of pleasure and personal happiness (Ryan & Deci, 2001). It is typically assessed using subjective measures consisting of life satisfaction, the presence of positive mood, and the absence of negative mood (Waterman, 2008). Eudemonic well-being, on the other hand, focuses on striving for self-realization (Waterman, 2008). Behaviorally, it includes optimal positive functioning and the act of striving (Ryff, 1989; Ryff & Singer, 1998). Thus, eudemonic well-being involves a sense of fulfillment of one's potential, aspects not subsumed in the conceptualization of happiness. Additionally, eudemonic well-being is more cognition-based: An individual is arguably motivated to take actions because of an underlying cognition regarding what would be of greatest benefit to the individual and his or her overall positive feelings and thoughts regarding him or herself.

In their cross-sectional study of 1,252 Dutch teachers, Horn, Taris, Schaufeli, and Schreurs (2004) investigated the structure of occupational well-being. These

authors found that occupational well-being comprises of positive appraisal of different dimensions of one's work, encompassing motivational, behavioral, affective, psychosomatic, and cognitive dimensions. These two dimensions are grounded in two general conceptualizations of psychological well-being, which were forwarded b Ryff (1989) and Warr (1994). The distinctiveness of these two dimensions has also been supported by confirmatory factor analysis. These analyses identified affect as the fundamental dimension, which is in line with the earlier operationalization of subjective well-being that primarily focused on affect.

Building upon Horn et al.'s (2004) conclusion, the present study has operationalized well-being in work context of university teachers as affective evaluation of their job. According to Warr (1990), Affective well-being can be conceptualized in terms emotions pertaining to a particular dimension (i.e., 'job-related' and 'facet specific') or feelings about life in general (i.e., 'context-free'). In the context of affective well-being, the term work refers to jobs in general whereas 'job' denotes the particular tasks assumed by individuals in a specific setting (Warr, Cook, & Wall, 1979).

Domain-specific and context-free affective well-being have distinct antecedents. Responsibility, pay, working conditions, colleagues, supervisors, security of employment, promotional prospects, the organization as a whole, and the kind of work undertaken constitute various facets of domain specific affective well-being. On the other hand, context-free affective well-being incorporates various facets such as physical health, satisfaction with self-image, and social and home life, which are identified as contributors to affective well-being (Warr, 1987).

Warr (2002) concentrated on well-being in the context of work and proposed a model that explains work-related well-being in terms of three dimensions including anxiety-comfort, pleasure-displeasure, and enthusiasm-depression. Low pleasure and high mental arousal results in anxiety feelings whereas low arousal and pleasure leads to comfort on anxiety-comfort dimension. Life satisfaction in general and more specifically one's level of job satisfaction constitutes pleasure-displeasure dimension.

Finally, in terms of enthusiasm-depression dimension, depression occurs as a corollary to lower levels of both mental arousal and pleasure whereas enthusiasm is induced by high levels of both mental arousal and pleasure. Various contemporary instruments for assessing work-related well-being essentially measure the affective facet of well-being.

Although one of the principal objectives of positive organizational behavior was to determine the antecedents of employees' well-being, research linking job related well-being with various important constructs of positive organizational behavior is still in its infancy. Nevertheless, the available research has demonstrated that psychological capital, authentic leadership, and work engagement are important predictors of psychological well-being.

Research has demonstrated that the various fundamental components of PsyCap are linked with well-being. Studies support the proposition that positive cognitive constituents of PsyCap construct are positively linked with the positive experience of affective well-being. However, most of the studies have only examined the hedonic aspect of well-being. For instance, Luthans, Avolio, Avey, and Norman (2007) found that a composite operationalization of PsyCap was positively linked with job satisfaction. However, the conceptualization of job satisfaction as indicative of well-being is limited, and a more comprehensive assessment was necessary.

Culbertson, Fullagar, and Mills' (2010) work delineates differential impact of psychological capital on hedonic and eudemonic aspects of well-being. Their findings were based on the panel data and indicated that the relation between psychological capital and hedonic well-being, measured two weeks later, is mediated by eudemonic well-being. Their findings from the daily surveys also suggested that daily eudemonic work well-being was significantly associated with both daily positive mood and daily life satisfaction and that variance in eudemonic work well-being was predicted by one's psychological capital. Furthermore, individuals doing work that was eudemonic (i.e., reflective of one's abilities and strengths) were more likely to experience positive affectivity and high life satisfaction. This finding supports research that

suggests positive functioning is a better predictor of life satisfaction than pleasure alone (Peterson, Park, & Seligman, 2005).

Similarly, in their longitudinal study of a wide cross-section of employees over a period of three weeks, Avey, Luthans, Smith, and Palmer (2010) found that workers' PsyCap was positively associated with and explained unique variance over time in two most widely used measures of well-being. Avey et al. (2010) asserted that workers' positive agentic intentions and beliefs (Bandura, 2008), as reflected in their PsyCap may be conceived as a reservoir of cognitive resources upon which they may rely for influencing their well-being. Workers' PsyCap enhance their well-being by reinforcing the prospective value of undertaking different perspectives, evaluating working environment and situations in more constructive, promotion/approach focused, optimistic, and adaptive ways.

Most studies about leadership relate styles and behaviors with goal achievement and performance. It is not very usual to find studies that link specifically leadership with follower well-being but this has become more evident with the increased interest in more charismatic-driven leadership theories. Indeed, several studies point into this direction. A relationship between leadership and well-being has been established (van Dierendonck, Haynes, Borrill & Stride, 2004) and also that followers' well-being and leadership behavior are associated in a feed-back loop (Nielsen, Randall, Yarker, & Brenner, 2008). Bono and Ilies (2006) reported that induction of positive mood among worker might lead to numerous behavioral outcomes that are traditionally linked with charismatic leadership. This suggests that contagion effect of mood and positive emotions constitute primary psychological processes because of which charismatic leadership is related with these outcomes.

Cassar and Buttigieg (2013) noted that authentic leadership was positively associated with psychological well-being and flow. They argued that people who perceive and categorize leaders as "positive", "genuine" and "inherently real" were likely to generate an inner sense of tranquility and satisfaction. They were likely to evaluate their work surroundings as more resourceful and hence overcome the

debilitating effects of excessive demands. In return, they were likely to establish better rapport, which facilitated a reciprocal cycle of exchanges that can vary from commitment, citizenship behavior and other salient outcomes. This positive exchange relationship might generate high degrees of positive feelings and it was known that people feel more positive with others who offer pleasant interactions (Buunk & Shaufeli, 1993). Their results also reasonably suggested that lower perceptions of authentic leadership were also likely to be related to lower subjective well-being and to an extent lower flow.

Bakker and Demerouti (2008) conceived work engagement as an essential reflector of job related well-being for workers and organizations. Balducci, Fraccaroli, and Schaufeli (2010) found that work engagement and its subscales were positively correlated with an overall measure of job-related affective well-being (Van Katwyk, Fox, Spector, & Kelloway, 2000). Since work engagement is a positive psychological state marked by heightened activation, work engagement and its subscales were most strongly associated with the measure assessing high-pleasure/high-arousal job related affective well-being. Thus, Bakker and Demerouti were justified in their conclusion that convergence of work engagement and its factors with the high pleasure/high activation quadrant of the JAWS model – delineates work engagement as a psychological state identified by energy, identification with, and positive affect toward one's job (Schaufeli & Bakker, 2003).

Job Performance

One of the criteria of psychological resources to be included in the PsyCap is that such a psychological capacity must have some empirical support for its potential of influencing job performance (Luthans, 2002a, 2002b; Luthans, Avolio, et al., 2007; Luthans, Youssef, et al., 2007). Accordingly, the PsyCap as a super-ordinate construct must have a positive influence on job performance. In this regard, Fredrickson's (2001, 2003) broaden-and-build theory provides several pertinent lines of reasoning. Fredrickson's research posits that people's range of problem-solving skills, their adaptive processes, and their thought–action inventories are widened by their

positivity. This process of broadening is accomplished through developing buffers and repertoires of physical, social, intellectual, and, most notably, psychological capacities such as resilience, optimism, and goal orientation (which are essential for the hope capacity). This may results in upward helixes of adaptation, performance, and well-being, even in the face of adversities (Fredrickson & Joiner, 2002). The implications of this positivity in the context of psychological resources in not only limited to their direct positive effect on performance but it also may extends in buffering some of the undesirable influences of negativity. Consequently, there is an ascending spiral of growth and thriving that cannot be explained by any single psychological resource or any replacement that one resource can advance for the absence of another.

Consistent with Fredrickson's (2001, 2003) broaden-and-build theory, Wright (2005) suggested that individuals with the capability of experiencing numerous positive emotions are more apt at widening and developing themselves into more resilient and optimistic workers. The "broadening" aspect of positive affect can augment transient thought–action experiences whereas the "building" facet is responsible for the accrual of one's personal resources (Wright, 2005). This line of reasoning may be more facilitating in conceiving, operationalizing, and assessing the remarkable happy worker–productive worker hypothesis as compared to alternate approaches that have led to ambivalent findings pertaining to the association among different positive affects and cognitions and job performance in the past (for a comprehensive review, see Wright, 2005). Certainly, some empirical findings suggest moderating role of psychological well-being between job satisfaction and job performance (Wright, Cropanzano, & Bonett, 2007) and between job satisfaction and employee turnover (Wright & Bonett, 2007).

Empirical research has documented the positive impact of various psychological capacities on job performance. For instance, Luthans et al. (2005) observed a significant association between resilience and performance of the Chinese workers enduring significant change and makeover; Maddi (1987) reported that resilient workers of an organization facing huge downsizing sustained their happiness,

health, and performance. Likewise, hope has also been reported to be a positive correlate of job performance. Adams et al. (2002) reported that organizations having more hopeful employees were more successful. Peterson and Luthans (2003) observed that level of hope among fast food store managers was positively linked with economic return of their department, job satisfaction, and employee retention. Similarly, Luthans et al. (2005) found that hope level of factory workers in China was positively associated with their merit salary increases and supervisor-rated performance.

Job performance has also been positively linked with optimism and self-efficacy. In the context of work, Seligman (1998) observed that optimism was positively associated with performance of insurance sales agents, and a similar relationship was ascertained by Luthans et al. (2005) in their study of the Chinese factory workers. Finally, findings of a comprehensive meta-analysis revealed that self-efficacy was very strongly associated with work-related performance (Stajkovic & Luthans, 1998a; also see Bandura & Locke, 2003).

Another important issue pertaining to job performance is the appropriate operationalization of this construct. Youssef and Luthans (2007) noted that conceiving, operationalizing, and assessing job performance is one of the most challenging tasks in organizational practice and research. This issue of appropriate operationalization of performance is a leading cause of difficulties that frequently arise while testing hypotheses (Barrick & Mount, 2000; DeNisi & Gonzalez, 2000). Mangers are also perplexed by this same issue in their decisions of resource allocations because of the hindrances in the process of quantifying and equating the inputs of substitute human resource management interventions (Cascio, 1991).

Organizational researchers have a growing interest in ensuring objective and reliable performance measures. Using multiple measures of job performance is empirically suggested as the best alternative when objective performance appraisals are unattainable or imprecise. It has been observed that multiple subjective or self-reported measures seem to be more consistent with those of objective performance

measures (Chakravarthy, 1986). A recent comparison involving meta-analysis and structural equation modeling also demonstrated that although “in-role” performance is the most frequent criterion of assessing job performance among researchers, a widened, more cohesive perspective of behavioral criteria yielded more explanatory power and better fit to the observed data (Harrison, Newman, & Roth, 2006).

Particularly relevant to positivity research (Roberts, 2006), assimilation of multiple measure of work-related outcomes may offer an advantage of tapping overall performance and success in a wider, comprehensive sense (Harter, Schmidt, & Hayes, 2002; Harter, Schmidt, & Keyes, 2003). Besides direct, objectively measured performance, several potential outcomes, such as official performance appraisals, performance-based compensation systems and salary raises, productivity, work sampling, and supervisors and self-rated performance have also been examined as pertinent to work-related outcomes in general and particularly in relation to the desired influence of positive constructs on performance (see Luthans et al., 2005; Luthans, Avolio, et al., 2007; Luthans, Youssef, et al. 2007; Wright, 2005).

Schaufeli and Bakker (2004) cogently explained Hockey’s (1997) state regulation model of compensatory control for explaining the relationship between job performance and burnout. According to Hockey’s model, employees have two options when they perceive that demands of performing their jobs are too high to be met through the usual working schedule. Firstly, in strain coping mode, employees may sustain their target performance but at an increased compensatory cost which may be reflected at psychological level and exhibited through fatigue or irritability or at physiological level in the form of increased levels of cortisol. Secondly, in passive coping mode, employees may compromise at their performance standards (for example by reducing their speed and levels of accuracy). Thus, these employees may prevent further physiological and/or psychological costs. In extreme case, the may completely disengage themselves from their job. Although Hockey’s model was not developed as an explanation of burnout, it eloquently addresses the conditions of job performance that may lead to burnout. The same line of reasoning is echoed in Maslach’s (1993) reasoning that burnout is triggered by high job demands, which may

deplete employee's energy and exhaustion ensues. The employee may adopt an inappropriate coping strategy of mentally withdrawing from the job that prevents proper performance. This establishes a close link between job performance and burnout. The next section presents a concise review of pertinent literature on burnout.

Burnout

The most extensively recognized conceptualization of burnout proposes it as a three-dimensional construct comprising of feelings of emotional exhaustion, a propensity to depersonalize others (perceived distance from others), and reduced feelings of personal accomplishment in working with others (Maslach, 1982). Emotional exhaustion constitute the core of burnout concept and is recognized by a dearth of energy and a feeling that one's emotional resources are exhausted. Depersonalization is characterized by dealing with clients as if they were objects rather than individuals. Employees may develop sarcastic attitudes toward clients, co-workers, and the organization as a whole and may exhibit an impersonal and apathetic behavior (Cordes & Dougherty, 1993, p. 623). Reduced personal accomplishment leads to an inclination of appraising one's accomplishments negatively. Employees may feel reduced job competence and a declining sense of successful accomplishment in their job or dealings with others. This is usually accompanied by perceived lack of growth or even lost ground (Cordes & Dougherty, 1993).

Educator stress and burnout are recognized as a pervasive problem across the globe (Jackson, Rothmann, & van de Vijvar, 2006). For instance, Borg (1990) reported that one third of British teachers surveyed perceived teaching as highly stressful job. Similarly, Farber (1991) approximated that from 5% to 20% of all teachers in US were burned out at any given time. Teachers exhibit higher levels of exhaustion and cynicism as compared to any other profession (Maslach, Jackson, & Leiter, 1996; Schaufeli & Enzmann, 1998). In Finland, educators have the highest levels of burnout when compared with white-collar jobs and other human services (Kalimo & Hakanen, 2000).

Jackosn, Rothmann, and van de Vijver (2006) reasoned that high levels of burnout in teaching profession might have been produced by large class sizes, overload, role ambiguity, dearth of resources, undue time demands, isolation, restricted promotion prospects, inadequate collegial relationships, fear of violence, inadequate financial support, little participation in decision-making, learner behavioral issues, stress from external parties (e.g., education departments, unions), poor image of the profession, lack of community support, and role ambiguity.

Bakker et al. (2010) noticed the working lives of academics have been deeply influenced by the changes in universities in recent decades. These transformations include increased number of student and staff downsizing, declines in government financing, the incorporation of managerial-style leadership emphasizing proficiency and efficacy. These issues have led to higher student-staff ratios, which have resulted in increased teaching loads, added managerial obligations, and increased pressure to secure research funding. Thus, the reported high levels of occupational stress among teachers is not a surprising finding (Biron, Brun, & Ivers, 2008; Winefield, Boyd, Saebel, & Pignata, 2008). Consequently, an under-supply of response competencies and excessive demands are typically noted in institutions of higher education, which might influence academicians' perceptions of their jobs that might alter their experience of distress and eustress (Nelson & Simmons, 2003).

Literature has been consistent in reporting the negative consequences of burnout. Kondylis, Pandelis, Sfakianakis, and Prokopiou (2004) identified the negative consequences of burnout in mental and physical health, personal relationships, and professional behavior and performance. Researchers in organizational sciences have suggested that individual' personal dispositions as well as their work environments may constitute the causes of job burnout. For instance, personality variables such as negative affectivity (Zellars, Hochwarter, Perrewé, Hoffman, & Ford, 2004; Zellars, Perrewe, & Hochwarter, 1999), neuroticism and extraversion (Watson, David, & Suls, 1999); and the conditions of the job environment such as role stress (Cordes & Doughtery, 1993), role demands (Zohar, 1997), role conflict and role ambiguity (Rizzo, House, & Lirtzman, 1970),

interpersonal environment (Leiter & Maslach, 1988) and job characteristics (Hochwarter, Zellars, Perrew, & Harrison, 1999) were recognized as the probable reasons of burnout.

The role of individual's strengths and positive capacities in reducing the likelihood of being a prey to burnout has been largely ignored and to my knowledge, there are no published studies, which might have explored the buffering effect of positive psychological resources on burnout. The positivity movement in psychology is haunted by the positivity just as the field had exclusively been focused on the weaknesses and negative aspects of individual and the environment before the advent of this movement. This concern has recently been sensed by the giants in the field of POB as Avey, Luthans, and Youssef (2010) noted that although organizational behavior research is more positively-tilted than conventional and especially clinical psychology, it also has a tendency to concentrate on one side of the (positive-to-negative) continuum, which usually results in the omission of the other (e.g., stress not eustress or satisfaction not dissatisfaction). Positive organizational behavior may also adopt a parochial perspective if it does not espouse a balanced and fair perspective of investigating organizational phenomena right from its infancy. Alternatively, it can be assumed that "positive" organizational behavior may be improvident and handicapped if it adopts a promotive perspective with exclusively concentrating upon positive constructs. The current investigation, therefore, adopted a "balanced perspective" by incorporating both the negative and positive behavioral outcomes for identifying how PsyCap may foster positive consequences for the organization while simultaneously providing a shield against the negative ones. The next section reviews the second negative work outcome of the present study—counterproductive work behavior (CWB).

Counterproductive Work Behavior (CWB)

Bennett and Robinson (2000) conceived counterproductive work behavior (CWB) as voluntary behavior of employees of an organization that infringes important organizational values, which in turn may impede the well-being of the

organization and/or its members. Just like OCBs, CWBs can be reflected in the context of interpersonally aberrant behaviors such gossip about, harassment of, violence against, or theft from a coworker. CWBs can also be manifested in such organizationally deviant behaviors as deliberately working at a slower speed, destroying organizational belongings and property, or disclosing confidential organizational information (Robinson & Bennett, 1995). Nevertheless, it should be noted that interpersonal and organizational deviances are strongly associated and their distinctiveness has been recently criticized (Berry, Ones, & Sackett, 2007). Empirical research suggests counterproductive work behaviors are positively associated with negative emotions whereas they have a negative relationship with job satisfaction (Judge, Scott, & Ilies, 2006).

Like any other organizational setup, counterproductive work behaviors among university teachers are quite detrimental to their professional integrity and may jeopardize the productivity and efficiency of university's operations. Typical deviant behavior among university teachers include leaving their classes earlier than the scheduled time, covering the syllabus through students' presentations, inappropriate evaluation of sessional marks, discrimination among students, coming late to their classes, misbehaving with students and colleagues, sparing little or no consultation time for their research students, mishandling the lab equipment, and so on. Anwar, Sarwar, Awan, and Arif (2011) found that organizational deviance was more prevalent than interpersonal deviance in Pakistani universities. They also reported that male university teachers were significantly higher on counterproductive work behaviors than their female counterparts were. According to Sarwar, Awan, Alam, and Anwar (2010), weak monitoring system in education sector of our country facilitates deviant behaviors. Iqbal, Arif, and Badar (2012) found that counterproductive work behaviors are more rampant in public sector universities of Pakistan than private sector universities.

Although citizenship behaviors and organizational deviances are inversely related, yet they are distinct and independent constructs with distinct antecedents and different corollaries (Sackett, Berry, Wiemann, & Laczo, 2006). (Sackett, Berry,

Wiemann, & Laczo, 2006). This makes them more relevant for the balanced perspective of outcomes proposed in the present study. Furthermore, the behavioral manifestations of organizational deviance and citizenship behavior are theoretically different. For instance, refusing to help a colleague reflects organizational deviance, a citizenship behavior may transcends the help demanded by the colleague to the extent that no material rewards, gratitude, or reciprocation is expected, and the colleague is encouraged to seek help in the future as well (Avey et al., 2010).

Up to this point, the nature and relationships between constructs of positive organizational behavior such as psychological capital, authentic leadership, psychological ownership, and work engagement have been reviewed. Literature has also been presented that delineated how these positive constructs might enhance certain desirable work behaviors such as organizational citizenship behavior, job related affective well-being, and in-role performance while simultaneously reducing the likelihood of burnout and counterproductive work behaviors. The next segment of this chapter offers a concise review of job demands-resources model (JD-R model, Bakker, Demerouti, De Boer, & Schaufeli, 2003) which not only explain employees' work related well-being but also depicts the dynamics by which various job resources and job demands may influence the impact of positive constructs of organizational behavior with certain desirable and negative work outcomes.

Job Demands-Resources Model

Job Demands–Resources (JD–R) Model (Bakker, Demerouti, De Boer, & Schaufeli, 2003) has primarily been proposed to explain employees' work related well-being. According to this model, regardless of the occupation two general classifications of work characteristics can be identified namely job demands and job resources.

Job demands. All social, physical, psychological, or organizational facets of the job that entail persistent physical and/or psychological (i.e., affective or cognitive) exertion and are consequently related to certain physiological and/or psychological

costs are termed as job demands (Demerouti et al., 2001). Despite the suggestion that job demands might tap the challenges in job rather than its stressful facets (Steenland, Johnson, & Nowlin, 1997), situations requiring high effort to maintain an expected performance level transform job demands into stressors, which, in turn, may elicit certain undesirable responses such as burnout. In the current research, quantitative overload has been incorporated as a job demand because several researchers have identified work overload as a pertinent job demand in teaching profession (e.g., Gillipsie, Walsh, Winfiled, Dua, & Stough, 2001; Hakanen, Bakker, & Schaufeli, 2006).

Workload as Job Demand in University Teachers

The perception of having too much work to do in the given time (Kahn & Byosiere, 1992), i.e., work pressure (or time pressure), is usually conceived as a reflector of workload or quantitative job demands (e.g., Demerouti, Bakker, & Bulters, 2004). Increased work pressure has been associated with increased psychological distress, anxiety, and physical health complaints in the long run (see Sonnentag & Frese, 2003, for a review). Various studies have shown that job demands such as workload and work pressure lead to psychological strain in academicians (Kinman, 2001; McClenehan, Giles, & Mallett, 2007). More recently, Boyd et al. (2011) found a mediated relationship between demands, resources, and strain in a longitudinal study of Australian university teachers. They found that perception of high workload and work pressure at an earlier point of time invigorates a sense of injustice and corrodes perceived job autonomy, which after three years led to accumulated psychological strain without any sign of inverse causation.

Rudow (1999) reasoned that teachers' psychosomatic complaints and their limitations in instructional performance are partially shaped by cognitive and affective workload, which may induce chronic stress, fatigue, and finally burnout. In their study of New Zealand universities, Boyd, and Wylie (1994) found that workloads and work-related stress were inversely related with academic time devoted to research, publishing and career development, research and teaching standards; and positively

related to interpersonal conflict among academicians. They also found that stress had detrimental effects on teachers' physical and psychological health, family relationships, and leisure activities of both. Hakanen, Bakker, and Schaufeli (2006) found that job demands of workload, pupil's misbehavior, and physical environment positively predicted burnout, which in turn led to poor health in a large sample of Finnish teachers.

Similarly, in Gillipsie, Walsh, Winfiled, Dua, and Stough's (2001) study, increasing workload and number of responsibilities were consistently identified as principal source of stress among general as well as academic staff of Australian universities. Gillipsie et al. (2001) identified several factors, which induce higher levels of workload among university academic staff. These factors involved the changing nature of students; the decrease in staff numbers, the incorporation of new technologies; increasing number of student; and unrealistic deadlines.

Gillipsie et al. (2001) observed that downsizing the faculty has led to a decline in skills and knowledge, and an accumulated workload for the remaining faculty. The upsurge in student numbers had caused an intense increase in the student: staff ratio. The number of fee paying and international students not only have been increased, but students' approach towards study is becoming more and more consumer-oriented which have resulted in poorer student standards. They further found that students' expectations about the availability of faculty for consultation and the support services provided by general staff have also been increased. Increasing diversity of students and incorporation of new technologies also warrant more skills in time management In addition, more time and skills were required to deal with the increasing diversity of students and the introduction of new technologies (e.g., web-based and on-line teaching, internet communication) for which faculty was not properly developed. Management and administration's impracticable targets further aggravate task overload at particular times of the year. For instance, deadlines for finalizing student grades remained same, although student: teacher ratio is drastically increased.

Gillipsie et al. (2001) also observed that it was becoming increasingly difficult for university teachers to meet their multiple teaching, research, and administrative duties, especially when each of these components is becoming more arduous. With reference to research, the need for staff to become ‘entrepreneurial’ in their research and consulting undertakings for income generation, had markedly amplified their workload. In terms of teaching, introduction of new teaching modalities (e.g., web-based), increased number of courses that academicians are supposed to develop and teach, rapid and ongoing progress in research knowledge, and teaching throughout the year in some universities had considerably added to this workload.

Job Resources

Job resources refer to those psychological, physical, social, or organizational dimensions of the job that may (i) decrease job demands and the related psychological and physiological costs, (ii) are instrumental in attaining work objectives, and (iii) stir individual progress, scholarship, and growth. Thus, job resources not only equip teachers with skills to deal with job demands and to secure accomplishments, but they are also significant in their own place. In contrast, absence of job resources may lead to burnout. Taken together, the JD–R model assumes that increasing job demands and declining job resources are the principal contributors to burnout and reduced work engagement, respectively.

In the present research, job autonomy and social support have been incorporated as pertinent job resources. Several studies have documented job autonomy (see e.g., Bakker et al., 2010; Taris, Schreurs, & van Iersel-van Silfhout, 2001) and social support (Coladarci, 1992; Rosenholtz & Simpson, 1990) as important job resources in teaching profession.

Job Autonomy as Job Resource

According to Boyed et al. (2011), job autonomy refers to employees’ capability of influencing decisions over essential matters such as the speed and timing of their work (Boyd et al., 2011). It is frequently integrated as a resource in

investigations of the JD-R model (Bakker & Demerouti, 2007). Self-determination theory (Deci & Ryan, 2000) proposes autonomy as a fundamental human need and its gratification results in increased impetus and determination. However, when this need is not satiated, indifference and depersonalization may ensue. The presence of job-related autonomy satiate this basic human need, which should result in enhanced work motivation (van Prooijen, 2009). Job autonomy is a basic element of the demand control model (Karasek, 1979) and other work-characteristic models of stress and well-being (e.g., Hackman & Oldham, 1980).

Leithwood (1999) have proposed that educational institutions can cultivate commitment to organizational goals if they provide teachers with opportunities of competence building and shared decision-making possibilities (i.e., job resources). These job resources may act antithetically to depersonalization by encouraging personal investment in the work and success of the organization. According to Hakanen, Bakker, and Schaufeli (2006), teachers who are equipped with job resources like supervisory support, job control, and innovativeness has the potential of becoming more energetic and dedicated, i.e., engaged in their work, and may be more committed to their job. Contrarily, absence of vital job resources that help meet job demands may result in burnout, which may lead to sharp decline in work engagement and organizational commitment. According to Demerouti and Bakker (2006), greater autonomy is linked with more opportunities of effectively coping with taxing situations; therefore, it is a critical job resource for employees' health and well-being. Similarly, in their study of Australian university teachers, Bakker et al. (2010) found that job autonomy, procedural fairness, and trustworthiness of senior management were significant job resources in sustaining academics' organizational commitment. Finally, in a longitudinal investigation of JD-R model among Australian university teachers, Boyd et al. (2011) found that job resources of job autonomy and procedural fairness were significant predictors of organizational commitment and psychological strain over a period of three years. Their findings demonstrated that resources at earlier point of time were significant predictors of strain and organizational commitment at later point of time without any sing of inverse causation. Similar findings have been reported by Akram and Hassaan (2013) who found that job

autonomy was a significant predictor of work engagement among Pakistani university teachers. They further elaborated that job crafting played a mediating role between job autonomy and work engagement.

Social Support as Job Resource

Functions performed for the individual by significant others, such as friends, family members, and coworkers are usually termed as social support. Significant others can offer informational, instrumental, and/or emotional assistance. These different supportive functions are frequently associated with one another and often yield a single underlying factor that can be labelled as perceived social support. The present study has operationalized social support as work related support from colleagues and supervisors (House & Kahn, 1985).

Supportive coworker and appropriate feedback from one's supervisors enhances the probability of being successful in achieving one's job objectives. A good working relation with one's chairperson of the department or dean of the faculty may reduce or buffer the negative impacts of job demands (e.g., affective and physical demands, work overload) on occupational strain, since boss' appreciation and sustenance may change the standpoint of demands. Boss' admiration and support may also facilitate the employees in affectively coping with the job demands, which in turn add value to performance and may act as a guardian against ill health (Vaananen et al., 2003).

Social support is clearly an important job resource because it is instrumental in attaining work goals. Therefore, instrumental support from coworker may assist in meeting the deadlines and subsequently may buffer the influence of work overload (Van der Doef & Maes, 1999). This is quite in line with the stress-buffering hypothesis that suggest social support as employees' shield from the negative corollaries of experiencing stressful events (Cohen & Wills, 1985).

Self-determination theory (Deci, Vallerand, Pelletier, & Ryan, 1991) posits that employees' well-being and their commitment with organization can be enhanced by any social work milieu that satiate their basic needs of autonomy, belongingness, and competence (see also Hackman & Oldham, 1980). Job resources such as autonomy, feedback, and social support may initiate a motivational process that culminates in job-related learning, organizational commitment, and work engagement (e.g., Salanova, Agut, & Peiro, 2005; Taris & Feij, 2004).

Numerous research studies have investigated social support as an important job resource across a wide variety of occupations. For instance, Bakker, Demerouti, and Euwema's (2005) study of over 1,000 employees of a large institute for higher education, showed that various job demands led to burnout if employees experienced low levels of social support, feedback, autonomy, and supervisory coaching. Cross-sectional studies have demonstrated that lack of job resources such as social support, feedback, and supervisory coaching (Schaufeli & Bakker, 2004), and absence of information, supervisor support, innovative climate, social climate, and job control (Hakanen, Bakker, & Schaufeli, 2006) are consistent predictors of burnout. In a similar vein, Janssen, Peeters, de Jonge, Houkes, and Tummers (2004) observed that in addition to being inversely related to exhaustion in nurses and nurse assistants, social support was also positively associated with their job satisfaction. In their study of over 1000 employees of a large institution of higher education, Bakker, Demerouti, and Euwema (2005) found that job demands were more detrimental in terms of developing burnout for those employees who have fewer job resources (social support, autonomy, feedback).

Previous between-subject investigations have consistently demonstrated that job resources such as social support from autonomy, co-workers and superiors, opportunities for professional development, and performance feedback are positively related to work engagement (for a meta-analysis, see Halbesleben, 2010) flow, and organizational citizenship behavior. In their study of four different occupational groups, Schaufeli and Bakker (2004) observed a positive association between three job resources (feedback, social support, and supervisory coaching) and work

engagement. In their SEM analyses, they demonstrated that resources (but not the job demands) were antecedents of engagement, which in turn played a mediating role between job resources and turnover intentions. The findings of this research were replicated in a sample of over 2,000 Finnish teachers (Hakanen et al., 2006) and findings revealed that supervisory support, job control, information, social climate, and innovative climate were all positively linked with work. Llorens, Schaufeli, Bakker, and Salanova (2007) reported conceptually similar findings in a Spanish context. In a methodologically different study of fast-food restaurant employees, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009b) observed that daily work engagement was attributable to daily changes in supervisor support, social support from coworkers, and team cohesion.

In their study of music teachers, Salanova, Bakker, and Llorens (2006) noted that organizational resources (including clear goals and social support climate) expedite work-related flow (work enjoyment, work absorption, and intrinsic work motivation); which in turn had positive impact on organizational and personal resources. Similarly, Bakker's (2005) research on music teachers and their students demonstrated that organizational resources were significant predictors of flow experiences. He observed that work related flow was most frequently experienced by those teachers who enjoyed high levels of autonomy, supervisory coaching, social support, and feedback. Bakker, Demerouti, and Verbeke (2004) also found that social support and job autonomy were important determinants of organizational citizenship behavior.

Energetic and Motivational Processes in JD-R Model

The JD–R model proposes that job demands and job resources may initiate two different but related processes: (a) an energetic process of exhaustion whereby high job demands dissipate worker' psychological and physical resources and may result in burnout which ultimately leads to ill health; and (b) a motivational process whereby job resources nurture organizational commitment, engagement, (Schaufeli & Bakker, 2004), and other positive work behaviors such as organizational citizenship

behavior (Bakker, Demerouti, & Verbeke, 2004;) and in-role performance (Bakker & Heuven, 2006; Salanova, Agut, & Peiro, 2005).

Hockey's (1997, 2000) compensatory regulatory-control model offers pertinent explanation of energetic process that link job demands to ill health via burnout. This model posits that stressed employees experience a trade-off between the benefits of goal achievement through their job performance and the costs of mental exertion that has to be invested in attaining the job objectives. Regulatory issues arises when job demands increase because compensatory labor has to be undertaken in order to cope with the increased demands while maintaining performance levels. This leads to higher psychological and physiological costs (e.g., increased fatigue, aroused sympathetic system, reduction in motivation). Ongoing deployment of compensatory effort may exhaust worker's vigor resulting in burnout, which eventually culminates in poor health (Hockey, 1997).

The motivational process relates job resources with desirable work outcomes through work engagement. Job resources can be conceived as intrinsically motivating because they nurture employees' growth, erudition, and development, or they may constitute source of extrinsic motivation because they are functional in attaining work goals. In either case, be it intrinsically motivating or extrinsically energizing, the outcome for the employee is positive, and engagement—a gratifying, positive work-related state of mind—is likely to ensue. Empirical support for this motivational process in Pakistani work milieu has been provided by Nadim and Khan (2013) who found that among employees of cement industry of Pakistan, employee engagement moderated the relationship between job resources (training and development opportunities, supervisor support, quality of work life, and reward system) and job satisfaction by augmenting their positive association. Similar findings have been reported by Rasheen, Khan, and Ramazan (2013) who found that job resources of perceived organizational support, perceived supervisor support, and perceived organizational justice led to employee engagement, which in turn resulted in increased citizenship behaviors among employees of banking sector in Pakistan.

Besides the main effects of job demands and resources, the JD-R model assumes that interaction between job demands and job resources is critical for developing occupational stress as well as motivation. More precisely, it is purported that job resources may act as cushion against the debilitating influences of job demands on burnout (Bakker Demerouti, Taris, Schaufeli, & Schreurs, 2003). This hypothesis is in agreement with Diener and Fujita's (1995) findings that different goals/demands are probably influenced by numerous resources. The buffer hypothesis is also in consonance with Kahn and Byosserie's (1992) arguments that the buffering or interactive influence can arise between any pair of variables in the stress-strain system. The impact of a stressor can be buffered by characteristics of work environment and personal attributes of the individual facing the stressor. The buffering variables can moderate responses that follow the evaluation process, minimize the health-damaging costs of such responses, reduce the chances that organizational characteristics may create certain stressors, or transform the cognitions and perceptions induced by such stressors. Bakker and Demerouti (2006) argued that social support and job autonomy are key moderators between job demands and undesirable work outcomes. The buffering impact of job resources was elucidated by Bakker, Demerouti, and Euwema's (2005) study of 1,000 teachers of a large institution of higher education, which indicated that burnout was much more pronounced in cases where job demands were high and job resource were low. More concisely, they observed that teachers who enjoyed good deal of performance feedback, autonomy, high-quality relationship with supervisor, and social support were not expected to burnout while facing work overload, physical demands, work-home conflict, and affective demands. Analogous results were recounted by Xanthopoulou, Bakker, Demerouti, and Schaufeli (2006) who tested the JD-R interaction hypothesis among employees of two home care firms. Their results suggested, e.g., that interaction of patient harassment with autonomy and support predicted exhaustion whereas interaction of patient harassment with support and professional development predicted cynicism. Autonomy appeared as the most crucial buffer of job demands for both dimensions of burnout, followed by support and opportunities for professional development. Findings demonstrated that all significant interactive effects were in accord with the hypothesized direction. Highest levels of

exhaustion and cynicism were observed in conditions where job resources were low and job demands were high.

Bakker and Demerouti (2007) elaborated that the final proposition of the JD-R model is that job resources are especially more influential in relation to motivation or work engagement under the conditions of high job demands. They sought support for this proposition from conservation of resources (COR) theory (Hobfoll, 2001), which suggested that individuals want to attain, retain, and defend whatever they value, e.g., social, material, energetic, or personal resources. The theory suggests that stress experienced by individuals can be explained in terms of probable or real loss of resources.

This proposition has also been empirically supported as Bakker, Hakanen, and Demerouti (2006) observed that job resources served as moderators by reducing the negative relationship between pupil misconduct and work engagement of Finnish teachers of elementary, secondary, and vocational schools. Moreover, they noticed profound buffering impact of job resources on work engagement when teachers were dealing with high levels of pupil misbehavior. More concisely, supervisor support, appreciation, organizational climate, and innovativeness were significant job resources that facilitated teachers in dealing with taxing interfaces with pupils. In indigenous work settings of Pakistan, Mangi and Jalbani (2013) found that among university teachers of Sindh province, work engagement mediated the positive relation of emotional exhaustion and cynicism with turnover intentions such that work engagement reduced the influence of burnout on turnover intentions.

This review of pertinent literature elucidated that social support and job autonomy are salient job resources whereas quantitative overload represents a germane job demand in the occupational context of university teachers. Therefore, the present study has operationalized its JD-R model for Pakistani university teachers in terms of quantitative overload (as job demand), social support, and job autonomy (as job resources).

The review of literature up to this point explicates the pattern of relationships among major variables of the present study and delineates the basic visage of the proposed model of this research. This proposed model is being discussed in the next section. In a nutshell, this literature review suggests positive association of positive psychological capital with certain desirable work attitudes like job satisfaction, organizational commitment, psychological ownership and certain desirable work outcomes such as in-role performance and organizational citizenship behavior. It also revealed that psychological capital is inversely related with organizational deviance and burnout. Positive association of authentic leadership with psychological capital, psychological ownership, work engagement, citizenship behavior, job performance, job satisfaction, and organizational commitment is also augmented in various studies. Pertinent literature also revealed that psychological ownership and work engagement are positively associated with each other and lead to desirable work attitudes (such as job satisfaction and organizational commitment) and work behaviors (such as citizenship behaviors, job performance). Strong empirical support has been observed for the propositions of job demands-resources model. Numerous evidences support that job resources lead to work engagement, which in turn results in desirable work outcomes whereas job demands are important precursors of burnout and exhaustion because of which certain desirables work outcomes may be jeopardized and eventually physical and psychological health is compromised. Positive and negative affectivity are important personal dispositions, which have consistently been linked with job satisfaction, organizational commitment, job performance, and burnout. These personal traits are, therefore, incorporated into the present study as control variables against which psychological capital is assumed to have unique explanatory power in various work outcomes.

Rationale and Proposed Model of the Present Study

The proposed model of the present study is an empirical attempt at formulating a comprehensive theoretical model of positive organizational behavior in line with Youssef and Luthans' (2010) framework for developing an integrated model of organizational behavior. More specifically, these authors have emphasized that the

study of positive organizational behavior must take into account individual and organizational antecedents (including personality traits and trait like characteristics, life experiences, organizational structure, strategy, culture, and individual-organization interface) in relation to psychological capital which should also acknowledge the role of certain state and state-like negative vulnerabilities (e.g., negative moods, stress, learned helplessness). Furthermore, the effects of these antecedents and psychological capital (along with vulnerabilities) must be explored in broader set of work effects which should include both positive and negative outcomes in terms of attitudinal outcomes (e.g., job satisfaction, organizational commitment, cynicism, complaints), behavioral intentions (e.g., moral intentions, turnover intentions), behavioral outcomes (e.g., OCB, CWB, turnover), and in role performance (e.g., quantity and quality of output, missed deadlines, loss of customers). Finally, the effect of all these work outcomes must be assessed in terms of verifiable and sustainable organizational performance (e.g., efficiency and effectiveness).

The proposed model of the present study has incorporated multiple behavioral work outcomes in relation to psychological capital, authentic leadership, psychological ownership, and work engagement. Unlike the typical studies in the field of positive organizational behavior, these work outcomes include both positive as well as negative work behaviors, which furnishes the present research with a balanced perspective. This theoretical model is developed and tested among university teachers of Pakistan since faculty of higher educational institutions constitute one of the most under represented occupational groups in studies of positive organizational behavior. Results of the present study, therefore, may not only validate the existing findings of positive organizational behavior from diverse cross sections of various occupational groups but also yield unique pattern of relationship germane to the work milieu of university teaching. Furthermore, the current study is one of the pioneering researches that have simultaneously seen many important constructs of positive organizational behavior in relation to multiple work behaviors through a theoretical framework.

The proposed model of this study (see Figure 1) specifies affectivity (negative affectivity and positive affectivity) as personality traits and authentic leadership as organizational variables in order to see how individual's psychological capacities interact with situational and personality variables to shape his/her attitude of psychological ownership. Affectivity may also serve to establish the additive value of psychological capital in explaining unique variance in various proposed attitudinal and behavioral work outcomes. Psychological ownership presents an attitudinal variable in line with Youssef and Luthans (2010) integrated model. The proposed model of the present study then specifies work engagement as a motivational state that might have resulted from the interaction of individual's attitude of psychological ownership and his/her perception of job demands and job resources. Thus, work engagement is proposed as mediator between psychological ownership and proposed behavioral outcomes.

A very distinguishing characteristic of the proposed model of the present study is its mediational structure where promotive psychological ownership and work engagement are hypothesized as serial mediators of the relationship between psychological capital and various behavioral work outcomes. This is among the first studies that have incorporated psychological capital, authentic leadership, psychological ownership, and work engagement in relation to various work related outcomes. More specifically, the proposed model of the present research suggests that academicians who are rich in psychological capital may develop an attitude of psychological ownership for their institutions when they perceive their leadership as authentic. Thus, perceived authentic leadership may moderate the relationship between psychological capital and psychological ownership. This study further posits that faculty members who own their universities are more likely to be engaged in their work and this motivational state of work engagement is a more proximal predictor of work outcomes such as in-role performance, burnout and so on. This elucidates the mediating role of work engagement between psychological ownership and work outcomes.

Another noteworthy feature of the proposed model of the present study is that it incorporates job demands resources model (JD-R model; Bakker, Demerouti, De Boer, & Schaufeli, 2003; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The inclusion of job demands and job resources in the proposed model is an important addition as the integrated model of Youssef and Luthans (2010) has missed the inclusion of any job variable in this context albeit the huge empirical support for the significant effects of job variables on the work outcomes. More specifically, the proposed model of this study suggests that job demands and resources may moderate the relationship between work engagement and work outcomes. Although some studies have tried to combine positive organizational behavior and JD-R model; for instance, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) proposed that psychological capital and Avey, Avolio, Crossely, and Luthans (2009) suggested that psychological ownership can be conceptualized as personal resources; yet studies that have investigated various constructs of positive organizational behavior (e.g., psychological capital, authentic leadership, and psychological ownership) in the context of JD-R model are quite scarce. The present study is among the pioneering studies that have extended the combination of positive organizational behavior and JD-R model on several fronts. Firstly, this study has explored how various constructs of positive organizational behavior may influence work engagement and burnout—the very work related outcomes upon which JD-R model focusses. Secondly, this research is unique in the sense that it attempts to explore various positive and negative work related outcomes such as OCB, workplace deviance, and performance in relation to work engagement. Thirdly, this expansion of JD-R model is further augmented by the proposed moderating role of job demands and job resources in the relationship between work engagement and various work related outcomes. Fourthly, psychological ownership is specifically explored in terms of its promotion focused and prevention focused orientation in the context of JD-R model. More specifically this study has hypothesized that as a personal resource psychological capital is positively related to promotive ownership, which in turn leads to work engagement and negatively related to preventative ownership, which may result in burnout. This is the first study that has explored major orientations of psychological ownership in the context of positive organizational behavior and JD-R model.

The central tenet of the present research i.e., the serial mediation of psychological ownership and work engagement between psychological capital and work outcomes with work engagement as the proximal predictor of work outcomes is grounded in modern theories of attitudes such as theory of reasoned action (Ajzen & Fishbein, 1980) and planned behavior (Azjen, 1991). These theories are notable in the sense that they have explained why attitudes are not consistent predictors of behaviors and proposed that attitudes are better predictors of behavioral intentions. These behavioral intentions are spawned by the attitude or personal beliefs, norms or normative beliefs, and perceived behavioral control. Theory of planned behavior also postulates that the behavioral intentions are contingent upon perceived behavioral control to be translated into the actual behaviors. In the context of present study, psychological ownership is an attitudinal variable that has been developed through personal beliefs of psychological capital and normative beliefs of perceived authentic leadership. This ownership attitude leads to the positive motivational state of work engagement, which is equivalent to behavioral intentions. This line of reasoning is further augmented by Youssef and Luthans' (2010) model where work engagement has been conceptualized as behavioral intention. Personal resources of psychological capital and job demands and job resources are various indicators of perceived behavioral control, which determine whether the behavioral intention of work engagement actually results in increased OCB and in-role performance and decreased workplace deviance and burnout.

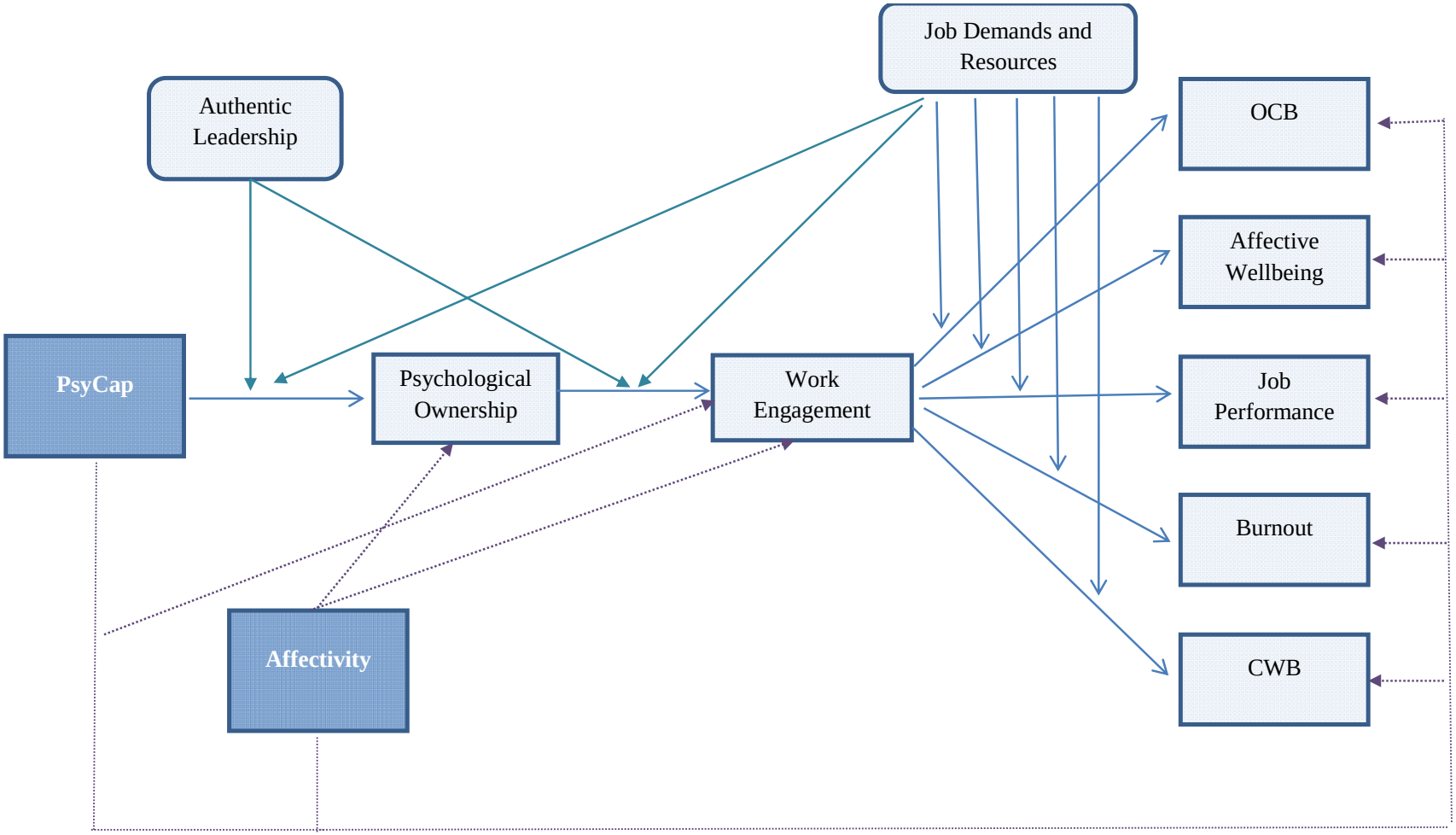

Figure 1. Proposed theoretical model of the present study.

Chapter II

OBJECTIVES, HYPOTHESES, AND RESEARCH DESIGN

Objectives of the Present Study

The major objective of the present study is to test the proposed model of positive organizational behavior. More specifically, this investigation focusses upon the following precise objectives:

1. Examining the psychometric properties and factorial structure of various measurement instruments that operationalized the constructs of the present study in a sample of Pakistani university teachers.
2. Establishing the additive value of PsyCap against personality traits of negative and positive affectivity.
3. Developing and testing a comprehensive model of positive organizational behavior.
4. Assessing the alternative models of the proposed study (e.g., testing the direct relationships of PsyCap with the proposed behavioral outcomes as opposed to the meditational paths in the proposed model).
5. Identifying the role of job demands and resources in relation to psychological capital, work attitudes, and work outcomes.
6. Testing the implied assumption of the proposed model that perceptual variables lead to attitude variables, attitudes may transform to motivational states, and motivational states would finally get translated into behaviors.
7. Exploring the impact of demographic variables on psychological capital, work attitudes, and work outcomes.

Hypotheses

Following hypotheses were formulated for their empirical test in the present study:

Positive psychological capital (PsyCap).

1. Positive psychological capital (PsyCap) will be positive predictor of desirable work behaviors.
   a. Positive psychological capital (PsyCap) will be positive predictor of in-role performance.
   b. Positive psychological capital (PsyCap) will be positive predictor of organizational citizenship behavior (OCB).
   c. Positive psychological capital (PsyCap) will be positive predictor of job related affective wellbeing.
2. Positive psychological capital (PsyCap) will be negative predictor of undesirable work behaviors.
   a. Positive psychological capital (PsyCap) will be negative predictor of counterproductive work behaviors.
   b. Positive psychological capital (PsyCap) will be negative predictor of burnout.
3. Positive psychological capital (PsyCap) will explain an additional variance in the outcome variables (in-role performance, OCB, job related affective wellbeing, CWB, and burnout) above and beyond the variance explained by the control variables of positive and negative affectivity.
4. Positive psychological capital (PsyCap) will be positively related with authentic leadership, promotive psychological ownership, work engagement, and positive affectivity.
5. Positive psychological capital (PsyCap) will be negatively related with preventative psychological ownership or territoriality and negative affectivity.

Authentic leadership.

6. Authentic leadership will be positively related with desirable work outcomes.
   a. Authentic leadership will be positively related with promotive psychological ownership.
   b. Authentic leadership will be positively related with work engagement.
   c. Authentic leadership will be positively related with in-role performance
   d. Authentic leadership will be positively related with job related affective wellbeing.
   e. Authentic leadership will be positively related with OCB.
7. Authentic leadership will be negatively related to undesirable work outcomes.
   a. Authentic leadership will be negatively related to CWB.
   b. Authentic leadership will be negatively related to burnout.

Psychological ownership.

8. Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with work intentions and various work behaviors.
   a. Promotive psychological ownership will mediate between positive psychological capital (PsyCap) and work engagement.
   b. Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with in-role performance.
   c. Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with organizational citizenship behavior.
   d. Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with job related affective wellbeing.
   e. Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with counterproductive work behaviors.

f. Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with burnout.

9. Promotive psychological ownership will be positively related to desirable work outcomes.
   a. Promotive psychological ownership will be positively related to in-role performance.
   b. Promotive psychological ownership will be positively related to OCB.
   c. Promotive psychological ownership will be positively related to job related affective wellbeing.
10. Promotive psychological ownership will be negatively related to undesirable work outcomes.
   a. Promotive psychological ownership will be negatively related to counterproductive work behaviors.
   b. Promotive psychological ownership will be negatively related to burnout.
11. Preventative psychological ownership or territoriality will positively relate to burnout.

Work engagement.

12. Work engagement will mediate the relationship of promotive psychological ownership with various work outcomes.
   a. Work engagement will mediate between promotive psychological ownership and in-role performance.
   b. Work engagement will mediate between promotive psychological ownership and OCB.
   c. Work engagement will mediate between promotive psychological ownership and job related affective wellbeing.
   d. Work engagement will mediate between promotive psychological ownership and CWB.
   e. Work engagement will mediate between promotive psychological ownership and burnout.

13. Work engagement will mediate the relationship of psychological capital with various work outcomes.
    a. Work engagement will mediate between psychological capital and in-role performance.
    b. Work engagement will mediate between psychological capital and OCB.
    c. Work engagement will mediate between psychological capital and job related affective wellbeing.
    d. Work engagement will mediate between psychological capital and CWB.
    e. Work engagement will mediate between psychological capital and burnout.
14. Promotive psychological ownership and work engagement will serially mediate between psychological capital and work outcomes.

Job resources (Social support and job autonomy).

15. Social support will moderate between work engagement and performance by fortifying their positive relationship.
16. Social support will moderate between authentic leadership and organizational citizenship behavior by strengthening their positive relationship.
17. Social support will moderate between work engagement and job related affective wellbeing by strengthening their positive relationship.
18. Social support will moderate between authentic leadership and work engagement by strengthening their positive relationship.
19. Job autonomy will positively predict promotive psychological ownership.
20. Job autonomy will moderate between authentic leadership and OCB such that it will strengthen their positive relation.
21. Job autonomy will moderate between promotive psychological ownership and job related affective wellbeing such that it will fortify their positive relationship.
22. Job autonomy will moderate between work engagement and burnout such that it will mitigate their negative relationship.

23. Job resources (social support) will positively relate to promotive psychological ownership, work engagement, in-role performance, job related affective wellbeing, and organizational citizenship behavior.
24. Job resources (social support) will negatively relate to preventative psychological ownership or territoriality, counterproductive work behaviors, and burnout.
25. Job resources will mediate between promotive psychological ownership and work engagement.
26. Job resources will mediate between positive psychological capital and work engagement.
27. Resources will buffer the negative effect of burnout on work engagement.

Job demands (Quantitative overload).

28. Quantitative overload will moderate between positive psychological capital and promotive psychological ownership by dampening their positive relationship.
29. Quantitative role overload will moderate between work engagement and in-role performance such that it will strengthen the positive association between work engagement and in-role performance.
30. Quantitative role overload will moderate between psychological capital and job related affective well-being such that the positive relationship between psychological capital and job related affective well-being would be weakened under conditions of high quantitative role overload.
31. Quantitative role overload will moderate between authentic leadership and burnout such that it will strengthen the negative association between authentic leadership and burnout.
32. Quantitative overload will negatively relate to promotive psychological ownership, work engagement, in-role performance, job related affective wellbeing, and organizational citizenship behavior.
33. Quantitative overload will positively relate to preventative psychological ownership or territoriality, counterproductive work behaviors, and burnout.

34. Quantitative overload will mediate between preventative psychological ownership and burnout.
35. Quantitative overload will mediate between preventative psychological capital and burnout.
36. Burnout and work engagement will be negatively related.

Operational Definitions of Variables

All the variables in the present study have been operationalized through self-report Likert type measures except job performance, which has been measured through a self-reported as well as supervisor-reported scale. The following section provides brief operational definitions of the constructs involved in this study.

Positive Psychological Capital (PsyCap). Positive Psychological Capital (PsyCap) can be conceptualized as an individual's positive psychological state of development that is constituted by: (i) confidence (self-efficacy) of taking on and putting in the required exertion for the successful accomplishment of challenging tasks; (ii) investing consistent efforts toward goals and, when required, devising alternative paths to goals (hope) for their successful accomplishment; (iii) making a positive attribution (optimism) about present and future success; and (iv) when confronted with issues and hardships, sustaining and bouncing back and even beyond (resiliency) to accomplish success (Luthans, Youssef, & Avolio, 2007). In the current study, psychological capital is measured through 24-item PsyCap Questionnaire (PCQ; Luthans, Avolio, Avey, & Norman, 2006). High score on this scale and its four subscales is suggestive of high levels of corresponding focal construct and vice versa.

Affectivity. Positive affectivity refers to pleasurable engagement with the environment in which individual feels enthusiastic, active, and alert. High PA reflects a state of full concentration, and high energy, whereas sadness and lethargy are hallmarks of low. Negative affectivity, on the other hand, is a general state of unpleasurable engagement and subjective distress that incorporates a variety of

aversive mood states such as disgust, fear, anger, guilt, nervousness, and contempt. Low NA suggests a state of tranquility and calmness (Watson, Clark, & Tellegen, 1988). The present study operationalized affectivity in terms of positive and negative affectivity as two distinct constructs which are measured through 20-item Positive and Negative Affect Schedule (PANAS) developed by Watson et al. (1988). High score on the Positive Affectivity subscale or Negative Affectivity subscale indicates high levels of corresponding construct and vice versa.

Authentic leadership. Walumba, Avolio, Gardner, Wernsing, and Peterson (2008) conceived authentic leadership as a repertoire of leader behavior that not only inculcates but also support both positive ethical climate and positive psychological capacities, which results in positive self-development when leaders promote greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency among their followers. The present study has operationalized authentic leadership in terms of 16-item Authentic Leadership Questionnaire (ALQ; Walumba et al., 2008) where higher the score on the ALQ, higher the authentic leadership and vice versa.

Psychological ownership. According to Avey, Avolio, Crossely, and Luthans (2009), psychological ownership reflects an individual's awareness, thoughts, and beliefs regarding the target of ownership; and it encompasses two broad domains: promotion focused ownership comprising of self-efficacy, accountability, sense of belongingness and self-identity; and prevention focused ownership characterized by territoriality. In the present study, psychological ownership has been measured through 16-item Psychological Ownership Questionnaire (POQ; Avey et al., 2009). High score on the scale indicate high levels of psychological ownership and vice versa.

Job demands. Job demands refers to those social, physical, or organizational domains of the job, which entail persistent physical or mental exertions and are

therefore related with certain psychological and physiological costs (Bakker & Demerouti, 2008). In the current study, quantitative overload has been incorporated as job demands in the context of university teachers.

Quantitative Overload. Quantitative role overload is experienced when one has a greater amount of work to do at one time than one can reasonably undertake (Dekker & Barling, 1995). In this research, Quantitative Overload Subscale of Role Overload Scale developed by Dekker and Barling (1995) has been used to measure quantitative overload as experienced by teaching staff of universities. This subscale represents the elements of quantity of work, amount of workload and time pressure. Increasing scores on this scale reflect increasing amount of quantitative overload and vice versa.

Job resources. Job resources refer to those physical, psychological, social, or organizational dimensions of the job that may (a) decrease job demands and the related psychological and physiological costs, (b) are instrumental in attaining work objectives, and (c) stir individual progress, scholarship, and growth. (Bakker & Demerouti, 2008). In the current investigation, perceived social support (comprising of perceived supervisor and perceived coworker support) and job autonomy have been conceived as important job resources for teachers at university level. These three job resources have been measured through the appropriate subscales of Job Content Questionnaire (Karasek, 1985).

Social support. Social support refers to helpful social interaction available on the job from supervisors and coworkers (Karasek & Theorell, 1990). This research measures social support through Social Support Subscale of Job Content Questionnaire (Karasek, 1985) with high score reflecting high degree of social support and vice versa.

Job autonomy. Job autonomy refers to organizationally sanctioned opportunities for workers to make decisions about their work (Karesk et al., 1998). In this study, Decision Authority Subscale of Job Content Questionnaire (JCQ) developed by Karasek (1985) is used to measure job autonomy where high score reflects greater job autonomy and vice versa.

Work engagement. According to Schaufeli and Bakker (2004), vigor, dedication, and absorption are essential characteristics of work engagement, which is a positive, satisfying, work-related state of mind. Work engagement is not a transitory state; rather it is a more stable and pervasive affective-cognitive state that does not depend on any particular event, object, individual, or behavior. The present research operationalizes work engagement through 9-item Utrecht Work Engagement Scale (UWES; developed by Schaufeli & Bakker, 2003) that includes three subscales: vigor, dedication, and absorption. High score on this scale indicates high levels of work engagement and vice versa.

Job related affective wellbeing. Job related affective well-being refers to employees' feelings about his/her job and assessment of his/her affective responses to his/her job (Katwyk, Fox, Spector, & Kelloway, 2000). Job related affective well-being is characterized by the frequent experience of positive affects and infrequent experience of negative affects in the work environment (Diener & Larsen, 1993). In the present research, Job Related Affective Well Being Scale (JAWS) developed by Katwyk et al. (2000) is used for measuring job related wellbeing. The sale has been scored in terms of single dimension of job related affective wellbeing with items of negative affects reverse scored.

Organizational citizenship behaviors. OCBs refers to employees' voluntary behaviors, which are not explicitly or directly compensated for by the formal reward system and, which taken together support the efficient functioning of organization performed beyond the regular or expected scope of one's job (Organ, as cited in

William & Anderson, 1991). In this study, organizational citizenship behaviors has been measured with William and Anderson's (1991) Organizational Citizenship Behavior Scale where high score corresponds to high levels of organizational citizenship behavior and vice versa.

In-role performance. According to William and Anderson (1991), in-role performance refers to the level of achievement at assigned job duties. In the current investigation, job performance has been measured through William and Anderson's (1991) self-report In-role Performance Scale. High score on this scale is suggestive of high job performance and vice versa.

Counterproductive work behavior (CWB). Bennett and Robinson (2000, p. 556) conceived counterproductive work behavior (CWB) as discretionary behavior of members of an organization that threatens the well-being of the organization and/or its members because it goes against substantial organizational norms. In the present investigation, counterproductive work behaviors have been measured through Bennett and Robinson's (2000) Workplace Deviance Scale. Increasing score on this scale implies increasing levels of counterproductive work behaviors and vice versa.

Burnout. Burnout is characterized by *emotional exhaustion* (the depletion of mental energy), *depersonalization* (an aversive attitude of indifference towards work) and *diminished professional efficacy* (the conviction that one is no more effective in accomplishing one's job duties), which results in a stable, negative, work-related state of mind in otherwise "normal" employees (Maslach, Schaufeli, & Leiter, 2001). In the present study, burnout has been assessed through Maslach Burnout Inventory-Educator Survey (Maslach, Jackson, & Leiter, 1996) where high score is suggestive of high levels of burnout and vice versa.

Research Design

The present research has employed a cross-sectional survey design. It comprises of two studies. Study I constituted the pilot study whereas study II was the main study. A detailed description of these two studies is as follows:

Study I: Pilot Study: Adaptation, Try Out and Psychometric Evaluation of Selected Instruments

The first study of the present research—pilot study was undertaken in order to ascertain the psychometric soundness of various instruments being used in this research. It also facilitated the researcher in examining the suitability of the various instruments for the indigenous population, as all the scales were western in their origin. Moreover, some of the scales (for instance PsyCap Questionnaire, Authentic Leadership Questionnaire, Psychological Ownership Questionnaire, and Work Engagement Scale) have been used for the first time in Pakistan. Ascertaining their appropriate comprehension, suitability on the part of the proposed sample, and their accuracy of assessment of various construct was, therefore, of paramount significance. Accordingly, this study has helped not only in adapting the instruments to our indigenous population of university teachers but it also yielded important information about the psychometric properties of the scales. The pilot study was also found to be helpful in discerning the initial patterns of the relationship among various variables. A detailed description of various parts of pilot study is couched in chapter III of this research.

Study II: Main Study: Model Testing and Exploration of Demographic Influences

The main study aimed at testing the proposed model of positive organizational behavior and various hypotheses of this study. Moreover, impact of demographic variables such as gender, age, faculty, job status, and job experience in relation to various variables of the present study was also explored. The data gleaned through the psychometrically sound instruments were subjected to statistical analyses in order to

test the proposed hypotheses of the study. The findings have been discussed in relation to pertinent literature and implications for enhancing university teachers' work outcomes and work attitudes have been proposed besides suggesting the recommendations for future research.

Chapter III

PILOT STUDY

This chapter has been couched with a view to present the details of pilot study including its objectives, method, findings, and discussion.

Objectives of Pilot Study

The primary objective of pilot study was to assess the suitability of various instruments being used in this study for the indigenous population of university teachers. For the purpose, adaptation of various items in different scales has been sought in pilot study to make them more comprehendible and relevant to our endemic university settings. The pilot study also attempted to evaluate the existing models of positive psychological capital, authentic leadership, psychological ownership, and work engagement in order to assess their structural adequacy in Pakistani population. Furthermore, pilot study was also mandatory for ensuring the psychometrically sound measurement of various constructs of the present research for which an initial psychometric analysis of all the scales used to measure variables of the present study was carried out. More specifically, pilot study was conducted to achieve the following objectives:

1. To explore the dimensions and structure of relatively new constructs (i.e., positive psychological capital, authentic leadership, psychological ownership, and work engagement) that have never been explored in Pakistani population so that the structural adequacy of their operationalization by various standardized western theoretical models and instruments may be evaluated in Pakistani university teachers.
2. To explore the most significant job resources and job demands for Pakistani university teachers.
3. To assess the suitability and comprehension of various scales of present study for Pakistani university teachers.

4. To adapt the selected scales for enhancing their comprehension for teachers of Pakistani universities and making them more relevant to their job context in our endemic settings.
5. To undertake statistical analyses of data by computing Cronbach's alpha coefficients of reliability for all the scales and their subscales, correlations of subscales of each scale, and exploratory factor analyses for the assessment of psychometric properties of all the scales.
6. To assess the initial pattern of relationships among different variables of the study.
7. To finalize instruments for the main study in the light of findings of pilot study by modifying or deleting non-significant items.

Design of Pilot Study

In order to achieve the multiple objectives of pilot study, it was undertaken systematically in various parts that include:

1. Focus group discussions for exploring the structure and dimensions of various constructs as conceptualized and experienced by Pakistani university teachers.
2. Focus group discussions for identifying the most salient job resources and job demands for Pakistani university teachers.
3. Try out of various western standardized instruments on a small sample of university teachers for examining their readability, comprehension, and suitability.
4. Expert opinion on selected instruments for their face and content validity.
5. Committee approach for adaptation of scales to our indigenous culture.
6. Pilot study

The following section discusses these parts in brief.

1. Focus Group Discussions for Exploring Dimensions of Various Constructs

The present study has incorporated various such constructs as have scarcely been explored in Pakistan. Positive psychological capital, authentic leadership, psychological ownership, and work engagement are examples of these constructs upon which studies on Pakistani population, especially teachers of Pakistani universities are very scant. These constructs are relatively new in western research paradigms as well, though they are being heavily researched upon in modern stream of research in industrial and organizational psychology and elaborated theoretical models of these constructs are now available. Focus group discussions were therefore obligatory to explore whether these constructs have the same structure and dimensions in Pakistani university teachers about which western research provide supportive evidence. It should be noted that these focus group discussions did not constitute a full-scale qualitative study; rather they were the means to explore the dimensions of various constructs of positive organizational behavior as perceived by university teachers of Pakistan.

Method. A series of four focus group discussions was undertaken with university teachers of the Punjab province. Dimensions of positive psychological capital, psychological ownership, authentic leadership, and work engagement as experienced by Pakistani university teachers were explored through these focus group discussions.

Participants. Four independent samples of university teachers were conveniently drawn from University of Sargodha, Sargodha; Government College University, Lahore; Quaid-i-Azam University, Islamabad; and International Islamic University, Islamabad. All these participants were teachers of psychology. The participants in each sample were conveniently chosen. The researcher requested various teachers of the aforementioned universities to participate in focus group discussions. Among them, those who volunteered for the discussion were requested

for an appointment and arrangements were made so that focus group discussions might have been conducted. The participants in each sample ranged from lecturers to associate professors in terms of their designations.

The sample drawn from University of Sargodha comprised of seven teachers (four female lecturers and three male lecturers). The sample from Government College University, Lahore consisted of six teachers (all were female lecturers). The sample from Quaid-i-Azam University, Islamabad comprised of seven teachers (one female assistant professor, 5 female lecturers, and one male lecturer). Finally, the sample drawn from International Islamic University consisted of seven teachers (one male assistant professor, 1 male lecturer, and four female lecturers).

The average duration of all the focus group discussions was 79.65 minutes with a standard deviation of 13.58 minutes. Psychological capital, psychological ownership, authentic leadership, and work engagement—each was discussed in three focus groups. Every group of participants discussed each construct in one focus group discussion; hence, each construct was discussed with three diverse samples to glean information that are more generalizable.

Procedure. The participants of focus groups were briefed about the nature and objectives of focus group discussions. All participants of the focus groups discussions gave their unanimous consent tap recording the discussion session. They were assured of the confidentiality of the information that they were going to provide to the researcher. They were further ensured that the information provided by them would never affect them in any way and it would be used for research purpose only. A semi structured focus group discussion guideline was prepared (see Appendix A) and the participants were presented with a brief standard definition of each construct after which they were asked to elaborate various instances of the construct in context of their job. The researcher acted as moderator in each group discussion and notes were taken during the group discussions as well as immediately after the end of each session. Each sample comprised of university teachers of same university. The participants were asked to put forward as many instances of the construct as they can

and elaborate them as to how it could be related with the construct under discussion. In each session of focus group discussion, participants were served with soft drinks and snacks and they were heartily thanked for their invaluable time and scholarship they have devoted to discussions.

2. Focus Group Discussions for Identifying Salient Job Demands and Resources

The second part of pilot study aimed at identifying the most salient forms of job resources and job demands for Pakistani university teachers. For this purpose, another series of focus group discussions were undertaken.

Method. In sum, three focus group discussions were conducted in this step, which identified the most salient job demand of quantitative overload; and three most salient job resources namely job autonomy, coworker support, and supervisor support in job context of Pakistani university teachers.

Participants. The researcher requested various teachers of University of Sargodha, Sargodha and Quaid-i-Azam University, Islamabad to participate in focus group discussions. Among them, those who volunteered for the discussion were requested for an appointment and arrangements were made so that focus group discussions might have been organized. Three independent samples of university teachers from the aforementioned universities were conveniently drawn. Each sample served in one session of focus group discussions. Two independent samples were drawn from University of Sargodha, each of which comprised of eight teachers. The first sample included two female and one male lecturers in psychology, one male assistant professor of English, one male assistant professor and one female lecturer in mathematics, and two female lecturers in education. The second sample comprised of two male lecturers in social work, two male lecturers in psychology, one female lecturer in mathematics, one male lecturer in international relations, and two male lecturers in education. The third sample was taken from Quaid-i-Azam University, which consisted of six teachers including two female lecturers in psychology, one female and one male lecturers in anthropology, one male lecturer in molecular

biology, and one male assistant professor of chemistry. The average duration of all the focus group discussions was 63.37 minutes with a standard deviation of 10.89 minutes.

Procedure. The participants of each focus group were informed about the nature and purposes of group discussions. They were guaranteed about the privacy of the information that they were going to share in-group discussions and their permission for tape recording of each discussion session was sought. The participants were also ensured that the information provided by them would only be used for research purposes and it would not expose them to any foreseeable risk pertaining to their job or life in general. As per the semi structured guidelines of focus group discussion on job demands and resource (see Appendix B), participants were presented with a brief standard definition of job demands and job resources after which they were requested to discuss various aspects of their jobs that they might perceive as job resources or job demands. The participants were further asked to cite examples of each job resource and job demand that come to their mind during the discussion session. The researcher played the role of moderator of each group discussion and notes were taken during the group discussions as well as immediately after each session. Each focus group comprised of teachers from the same university. The participants were requested to suggest as many examples of job resources and job demands as they can think of at their work and rank them in terms of their significance in their jobs. In each session of focus group discussion, participants were served with soft drinks and snacks and they were heartily thanked for their priceless time and scholarship that they have devoted to discussions.

Results of focus group discussions. In the first series of focus group discussions that aimed at exploration of dimensions of various constructs, the instances of each construct and their elaborations presented by the participants were analyzed for their possible relevance or irrelevance to the structure and dimensions of each construct as presented in western theory and research. Content analysis was undertaken in order to analyze the transcribed data. The data were analyzed to generate the pertinent codes that must adequately describe the data whether they fit

or not with the original theoretical model and operationalization of the construct. Each instance of the construct was taken as a unit of analysis whereas in case where the participants elaborated their instance or the researcher asked them to do so, each sentence of them was taken as unit of analysis for the present content analysis. The analysis of the data revealed that the original dimensions of the construct adequately describe the data as each instance of the construct presented by the participants fitted well with some of the original dimensions of the construct. The frequency of occurrence of instances for each generated code was recorded. The data for each of the construct (i.e., positive psychological capital, authentic leadership, psychological ownership, and work engagement) failed in spawning any new category which may significantly diverge with the already proposed dimensions or could add any new dimension to the constructs in our endemic settings. Hence, this series of focus group discussions revealed that these constructs are structurally similar to their western theoretical models in Pakistani university teachers.

In case of second series of focus group discussions, the instances of each job resource and job demand and their elaborations discussed by the participants were analyzed through content analysis of transcribed data, which resulted in pertinent codes that satisfactorily illustrated the data. Each instance of job resource or demand was conceived as a unit of analysis whereas in case where the participants explained their examples or the researcher requested them to do so, each sentence of them was taken as unit of analysis. The analysis of the data revealed 11 job resources and 10 job demands that were consistently reported across all the focus group discussions. The aspects of the job that were conceived as job resources by the participants included job autonomy, supervisor support, coworker support, supportive work environment, distributive justice, organizational support, promotional policy, equity, pay, effective leadership, and personal growth. On the other hand, role overload, students' misbehavior, role conflict, role ambiguity, work-family conflict, external pressures, internal pressures, lack of social prestige, low fringe benefits, and organizational politics were the aspects of university teachers that were portrayed as potential job demands. The frequency of occurrence of instances for each generated

code was recorded. The results of content analysis of focus group data are presented in Table 1 and are graphically depicted in Figure 2 and 3.

Table 1

Frequency and Percentages of Job Demands and Job Resources (N = 22)

Job Resources	*f*	%	Job Demands	*f*	%
Job Autonomy	54	19.42	Role Overload	62	18.39
Supervisor Support	49	17.63	Role Conflict	56	16.62
Coworker Support	40	14.39	Role Ambiguity	51	15.14
Distributive Justice	33	11.87	Work-family Conflict	41	12.17
Organizational Support	30	10.79	Students' Misbehavior	37	10.98
Equity	22	7.91	External Pressures	30	8.90
Pay	17	6.12	Lack of Social Prestige	22	6.53
Personal Growth	11	3.96	Organizational Politics	18	5.34
Job Satisfaction	9	3.24	Low Fringe Benefits	12	3.56
Promotional Policy	7	2.52	Internal Pressures	8	2.37
Effective Leadership	6	2.16			
Cumulative	278	100		337	100

Note. The sum of all instances of each job resource and job demand reported by each participant constituted the frequency of each job resource and job demands and as such it can be greater than the number of participants i.e., *N*. Percentages were computed by multiplying the ratio of frequency of each job resource/job demand and the corresponding cumulative frequency with 100.

All instances or illustrations of each job resource and job demand provided by all the participants across three focus group discussion were summed up to yield the corresponding frequency. Cumulative frequency of job resources and job demands was also computed and the ratio between frequency of each job resource/job demand with the corresponding cumulative frequency was multiplied by 100 for generating the percentage of each job resource and job demand. Table 1 depicts that 22 participants generated 54 instances of job autonomy; therefore, it appeared to be the most salient job resource followed by supervisor support and coworker support whose frequency of occurrence in transcribed data was 49 and 40, respectively. The least

frequently occurred instances of job resources clustered in the codes of promotional policy and effective leadership whose frequency of occurrence in the data was seven and six respectively. The frequency results of job resources are also depicted in Figure 2.

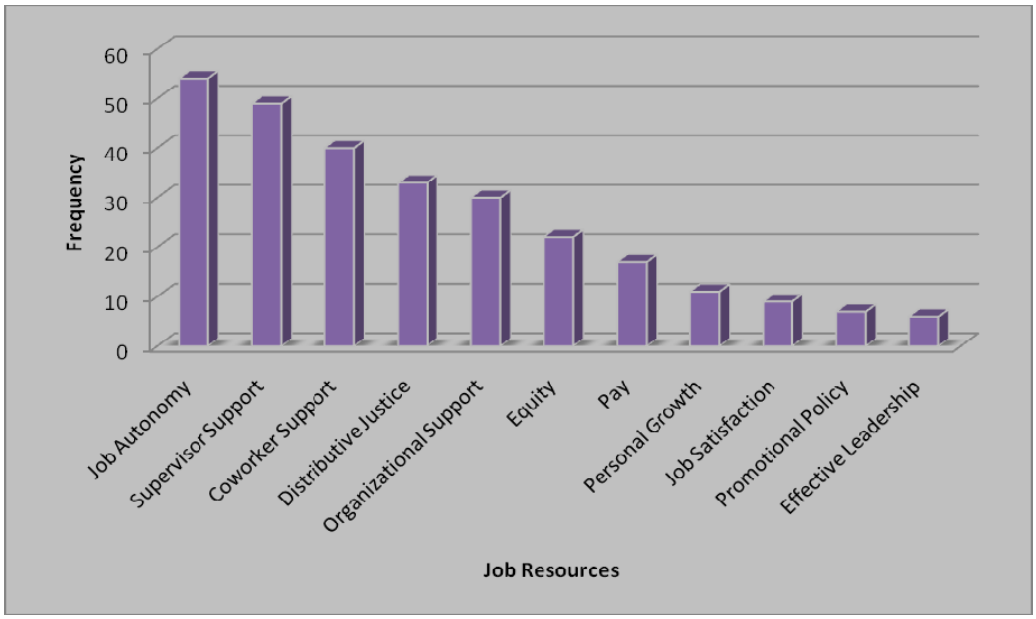

Figure 2. Frequency of job resources

In case of job demands, results in Table 1 suggest that themes related to role overload and role conflict were most frequently cited instances of job demands, which appeared for 62 and 56 times, respectively. Least reported themes in the data cluster in the codes of low fringe benefits and internal pressures, which were cited for 12 and 8 times, respectively. The frequency results of job demands are graphically depicted in Figure 3.

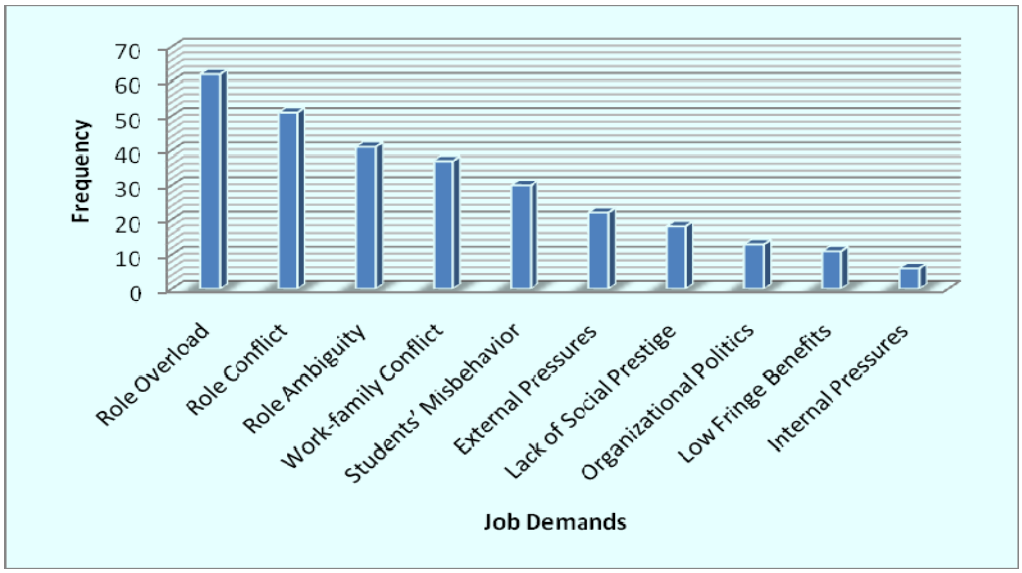

Figure 3. Frequency of job demands

3. Try Out of Instruments on Sample of University Teachers

The third part of pilot study involved try out of various instruments that were to be used in the present study, on a small sample of university teachers (N = 8). The primary objective of this step was to get feedback from university teachers while they respond to the various items of the instruments. The step was very important as it provided the researcher information about how the instruments were perceived by university teachers. The feedback asked from the participant included identification of difficult words and phrases that might have been hard to comprehend, items that might have appeared ambiguous to the respondents, and the items that the respondents thought irrelevant to their job context. The details of this part are as follows:

Participants. The sample for this step comprised of eight university teachers, which were conveniently selected from Psychology, Physics, and Mass Communication Departments of University of Sargodha, Sargodha. Regular faculty members of HEC recognized university with a minimum designation of lecturer and

at least one year of job experience constituted the inclusion criteria for the participants. The sample included five lecturers and three assistant professors.

Instruments. Self-report instruments in English language, which provided best operationalization of variables of the present study in accordance with the pertinent theoretical grounds, were selected for the present study. Pakistan is a bilingual country and English is the official language of the country. Moreover, medium of instructions for graduate and postgraduate programs is also English. Therefore, instrument did not need to be translated into Urdu for university faculty. During the selection of these instruments, it was ensured that only those instruments had been chosen, which possessed sound psychometric properties across a variety of samples and had already been used in organizational settings. Moreover, the suitability of these instruments as relevant operationalizations of variables of the present study was also discussed with one faculty member (Professor) of National Institute of Psychology, Quaid-i-Azam University Islamabad; and two faculty members (one Assistant Professor and one Lecturer) of Department of Psychology, University of Sargodha. The selected instruments of the present study were handed over to the aforementioned participants. The details of these instruments are as follows:

PsyCap Questionnaire (PCQ). The PsyCap Questionnaire (Luthans, Avolio, Avey, & Norman, 2006) is used to operationalize positive psychological capital in the present study (see Appendix 'C' for measurement protocol). The questionnaire comprises of four subscales measuring the four psychological capacities of hope, optimism, self-efficacy, and resilience. Through consultation with their colleagues, Luthans et al. (2006) selected the scales for each of these four positive facets since these scales were developed in the context of work settings and each of them was reliable and valid measure of state-like constructs constituting PsyCap. These scales included (i) hope (Snyder et al., 1996); (ii) self-efficacy (Parker, 1998); (iii) optimism (Scheier & Carver, 1985); and (iv) resilience (Wagnild & Young, 1993).

Sound psychometric support for each of these four chosen instruments is available in pertinent literature across numerous samples in workplace studies (e.g., Jensen & Luthans, 2006; Larson & Luthans, 2006; Luthans, Avolio, Walumbwa, & Li, 2005; Peterson & Luthans, 2003; Youssef & Luthans, 2007). Moreover, Scheier and Carver's (1985) optimism scale is also supported as a measure of state-like optimism (Shifren & Hooker, 1995), although it was originally developed for assessing dispositional optimism (or life orientation). The selected scales for measuring efficacy and resiliency scales are typically associated with state-like operationalization, but Parker's (1998) Efficacy Scale did not entail the specific task magnitude and strength measurement suggested by Bandura (1997). However, this scale is pertinent to the work milieu and it is based on a Likert-type scale rather than traditional magnitude and strength. It also possesses considerable psychometric properties as a measure of efficacy (Maurer & Pierce, 1998).

These scales constituted pool of items from which Luthans et al. (2006) developed the PsyCap Questionnaire (PCQ). The construction of this scale involved two important criteria. Firstly, each of the four constructs was equally weighted; therefore, each facet of PsyCap was assessed by the best six items from each of the four selected measures. Secondly, those items were selected which were relevant to work settings and had content validity of being measure of state-like capacities. The authors developed consensus on 24 items with a response format of 6-point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*). The PCQ inquires respondents to describe how they are thinking about themselves right now, which ensures its capacity of state-like operationalization. Each subscale can be scored by summing up the corresponding items to yield score on the corresponding psychological capacity or the subscales can be summed up to measure positive psychological capital as a higher order construct. The first 6 items constitute self-efficacy subscale; item 7 to 12 represent hope subscale; item 13 to 18 resilience subscale; and the last six items operationalize optimism. Items 13, 20, and 23 are reverse scored. Increasing scores on the scale reflect increasing levels of positive psychological capital and vice versa.

Confirmatory factor analyses of this scale in numerous studies (e.g. Luthans et al., 2005; Luthans, Avolio, Avey, & Norman, 2007) supported PsyCap as a second-

order factor with four first-order factors of resilience, efficacy, hope, and optimism. The PsyCap Questionnaire also demonstrated suitable internal consistency of each subscale (Resilience = .83, Efficacy = .92. Hope = .87, Optimism = .78) and the overall alpha coefficient of .95 across a variety of organizations and occupations (Avey, Luthans, & Youssef, 2010). Predictive validity of PsyCap Questionnaire has also been established as it significantly predicted job satisfaction, job performance (Luthans et al., 2006), organizational citizenship behavior, organizational cynicism, and counterproductive work behavior (Avey et al., 2010). Furthermore, Avey et al. also demonstrated that PsyCap could explain a unique variance in organizational cynicism, counterproductive work behavior, and intentions to quit after controlling core self-evaluations, personality traits, person-organization fit, and person job fit.

Positive and Negative Affect Schedule (PANAS). Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) provides operationalization of Positive Affectivity (PA) and Negative Affectivity (NA) in this study (see Appendix 'D' for measurement protocol). According to Wright and Cropanzano (1998), PANAS is the most widely used measure of PA and NA. The scale presents 20 words that describe various feelings and asks the respondents to check one response for each word that best indicates how they feel on average on a 5-point Likert type response format (1 = "*very slightly or not at all*" and 5 = "*extremely*"). Watson et al. (1988) conceptualized positive affect (PA) and negative affect (NA) as two separate constructs. Accordingly, this scale comprised of two subscales. Positive Affectivity Subscale comprises of 10 items including item nos. 1, 3, 5, 9, 10, 12, 14, 16, 17, and 19. Higher score indicates greater tendency to experience a positive mood. Negative Affectivity Subscale also consists of 10 items with item nos. 2, 4, 6, 7, 8, 11, 13, 15, 18, and 20. The higher the score, the greater the tendency to experience a negative mood and vice versa. Item in each subscale can be summed up to yield a corresponding subscale score. None of the items in this scale is reverse coded.

Research has evidenced sound reliability of PANAS (i.e., Jones, 1998; Morris & Feldman, 1996; Schaubroeck & Jones, 2000; Wright & Cropanzano, 1998). For example, Cronbach's alphas of .86 and .91 for PA and .85 and .83 for NA in

successive studies (Morris, 1995; Schaubroeck & Jones, 2000) support internal consistency of the scale. The scale has also been used in Pakistan with a satisfactory level of internal consistency, as alpha coefficient for the whole scale was .71 whereas alpha coefficients of .75 and .81 were reported for positive affectivity and negative affectivity subscales respectively (Adil, 2008).

Authentic Leadership Questionnaire (ALQ). In the present study, authentic leadership has been measured through Authentic Leadership Questionnaire (Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008). This questionnaire is a 16-item multidimensional instrument (see Appendix 'E' for measurement protocol) that measures authentic leadership as a second-order factor which is constituted by four first-order factors including relational transparency, self-awareness, balanced processing, and internalized moral perspective. Accordingly, there are four subscales of this questionnaire. First 4 items constitute Self-Awareness Subscale, items 5 to 9 add up to Relational Transparency Subscale; item 10 to 13 represent Internalized Perspective Subscale; and the last 3 items operationalize Moral Balanced Processing Subscale. The measure uses behavioral statements about leadership and asks respondents to judge how frequently each statement fit his or her supervisor using a 5-point scale ranging from 1 (*not at all*) to 5 (*frequently, if not always*). Each subscale can be scored separately by summing up the corresponding items as well as the four subscales can be summed up to yield an overall score of authentic leadership. None of the item is reversed scored and higher scores on the scale indicate higher perceptions of authentic leadership and vice versa.

The scale has been used in various studies across various organizations, occupations, and nations (e.g., Kenya, China, & USA). Walumba et al. (2008) reported subscale alpha coefficients of .85 (self-awareness), .78 (relational transparency), .78 (internalized moral perspective), and .77 (balanced processing). Furthermore, CFA of the questionnaire provided empirical evidence for its factorial structure. In the same vein, Clapp-Smith, Vogelgesang, and Avey (2009) reported that each subscale and the overall 16-item scale demonstrated adequate internal reliability with $\alpha > .70$ and demonstrated a good fit in confirmatory factor analysis. The

questionnaire has also demonstrated construct validity against transformational and ethical leaderships since these leadership styles theoretically appear to be closely related to authentic leadership. The predictive validity of this instrument has also been established as it significantly predicted organizational citizenship behavior, followers' satisfaction with supervisor, organizational commitment, organizational climate, job satisfaction, and job performance (Walumba et al., 2008).

Psychological Ownership Questionnaire (POQ). Avey, Avolio, Crossley, and Luthans (2009) conceptualized psychological ownership as comprising of two distinct forms namely preventative psychological ownership and promotive psychological ownership. Building on the three recognized dimensions of psychological ownership (i.e., belonging, self-efficacy, and self-identify, as conceived by Pierce, Kostova, & Dirks, 2001); Avey et al. (2009) added the concepts of territoriality and accountability as additional aspects of psychological ownership. Thus for Avey et al., feelings of psychological ownership over a target draw upon the concepts of territoriality (preventative psychological ownership), self-efficacy, accountability, belongingness and self-identity (promotive psychological ownership).

Avey et al. (2009) have developed a 16-item Psychological Ownership Questionnaire (POQ) that assesses preventative psychological ownership and promotive psychological ownership as two distinct types of psychological ownership (see Appendix 'F' for measurement protocol). To facilitate the state-like framing, the POQ asks the respondent to describe how s/he thinks about herself/himself right now by indicating her/his level of agreement or disagreement with a series of statements on a 6-point Likert scale (1 = *strongly disagree*; 6 = *strongly agree*). The first four items are summed up to yield a score on preventative psychological ownership whereas the remaining 12 items can be added to measure promotive psychological ownership. Items 5 to 7 tap self-efficacy dimension, 8 to 10 items measure accountability dimension, item 11 to 13 assess belongingness dimension, and item 14 to 16 operationalize self-identity dimension of promotive psychological ownership. All items of POQ are positively phrased so no item needs reverse scoring. The subscales can be scored by summing up the corresponding items or the subscales can

be added to yield a total score on POQ. High score on POQ indicate greater feelings of psychological ownership and vice versa.

The authors of the scale have demonstrated its sound psychometric qualities. Internal consistency coefficients for the components for their primary study were self-efficacy (α = .90), accountability (α = .81), sense of belongingness (α = .92), and self-identity (α = .73). The four territoriality items also demonstrated acceptable reliability (α = .84). Confirmatory factor analysis (CFA) also yielded empirical support for the factorial structure of the scale. Similar to their primary study, Avey et al. (2009) demonstrated acceptable reliabilities for territoriality feelings (α = .83), and each factor of promotion-oriented psychological ownership including accountability (α = .86), self-efficacy (α = .89), sense of belongingness (α = .92) and self- identity (α = .80) and the summated promotion-oriented psychological ownership measure (α = .91) with another sample of adult employees (N = 283) of metallic plating manufacturing organization. Constructs in the nomological network included affective commitment, OCBs, satisfaction, workplace deviance, intentions to stay with the organization, and transformational leadership. Avey et al. (2009) also demonstrated discriminant validity between promotion-oriented and preventative psychological ownership.

Job Demands. Based upon the aforementioned steps, the present study has incorporated quantitative overload as the most relevant job demand in the context of teaching staff's job at university level. The details of operationalization of quantitative overload are as follows:

Quantitative Overload. Quantitative Overload Subscale of Role Overload Scale developed by Dekker and Barling (1995) has been used to measure quantitative overload as experienced by teaching staff of universities (see Appendix 'G' for measurement protocol). The subscale comprised of 6 items with a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Item no. 5 is reverse scored. The responses on the items are summed up to generate a score on quantitative overload where a high score indicates high overload and vice versa. Evidence for the

internal consistency of the subscale suggests that it is a reliable measure of its corresponding construct as the reported alpha was .88 (Dekker & Barling, 1995). The authors have also reported exploratory factor analysis of Role Overload Scale, which confirmed two-dimensional structure of the scale comprising of quantitative overload factor and qualitative overload factor.

Job Resources. In lieu with the findings of previous steps, the present study identified three job resources as pertinent ones to university teachers. These include job autonomy, coworker support, and supervisor support. Relevant subscales of Job Content Questionnaire (Karasek, 1985) have been used for measuring these job resources. The Job Content Questionnaire is a standardized, validated, and reliable measure of psychosocial job assessment. The JCQ has been translated into more than 12 languages. The scale is nationally standardizable through detailed occupation in different countries, and provides an occupational scoring system. Validity evidence for this scale has been cross-culturally established among 10,288 men and 6,313 women from six studies conducted in four countries. All of these studies demonstrated substantial similarity in means, standard deviations, and correlations among the scales, and in correlations between scales and demographic variables. The Cronbach's alpha coefficients are generally acceptable (overall, average alpha for women is .73 and for men is .74). The highest and most acceptable values of the coefficients are found for the decision latitude, physical demands, supervisor support, and co-worker support scales. The JCQ scales have also demonstrated substantial predictive validity with respect to stress-related chronic disease in both international and U.S. research (Karasek, Brisson, Kawakami, Houtman, Bongers, & Amick, 1998). The details of the subscales used in the present study are as follows:

Job Autonomy. Decision Authority Subscale of Job Content Questionnaire (JCQ) developed by Karasek (1985) is used to measure job autonomy. This scale consists of three items (see Appendix 'H' for measurement protocol). A 6-point response scale was used, with responses ranging from 1 (*strongly disagree*) to 6 (*strongly agree)*. None of the items was reverse scored. The items are summed up to

yield a score on job autonomy with high score indicating high job autonomy and vice versa. The scale has been a reliable measure of job autonomy as the Cronbach's alpha coefficients of reliability of this subscale for men in a cross-national study of six samples ranged from .61 to .71 with an average alpha of .678 whereas the same for women ranged from .63 to .72 with an average alpha of .678. Recently, in their study of starting teachers, Bakker and Bal (2010) reported Cronbach's Alpha of .88 for this subscale, which affirms its use as a reliable measure of job autonomy.

Social Support. The present study has incorporated two indicators of social support including coworker and supervisor support. These indicators were measured with Coworker Support and Supervisor Support Subscales of Job Content Questionnaire (Karasek, 1985). Each subscale comprised of four items none of which is reverse scored (see Appendix 'I' for measurement protocol). A 6-point response scale with responses ranging from 1 (*strongly disagree*) to 6 (*strongly agree)* was used for both subscales. The items of both subscale are summed up to yield a score on social support where high score indicates greater social support and vice versa. The Cronbach's alpha coefficients of reliability of Coworker Support Subscale for men in a cross-national study of six samples ranged from .72 to .80 with an average alpha of .752 whereas the same for women ranged from .69 to .82 with an average alpha of .766. Similarly, the Cronbach's alpha coefficients of reliability of Supervisor Support Subscale ranged from .80 to .89 with an average alpha of .838 whereas the same for women ranged from .83 to .87 with an average alpha of .840 (Karasek et al., 1998).

Utrecht Work Engagement Scale (UWES9). Work engagement, in the present study has been operationalized through shorter version of Utrecht Work Engagement Scale (UWES9) developed by Schaufeli, Bakker, and Salanova (2006). The original version of the scale consists of 17 items (Schaufeli & Bakker, 2003) whereas the shorter version comprises of nine items. The scale operationalizes work engagement in terms of three subscales, which include vigor, dedication, and absorption. The scale presents a series of statements describing certain feelings about one's job and the respondents are asked to indicate how often they have felt each of the given feelings

about their job on a 7-point Likert type scale (0 = *Never*; 6 = *Always/Everyday*). Items 1, 2, and 5 constitute Vigor Subscale; items 3, 4, and 7 represent Dedication Subscale; and items 6, 8, and 9 add up to Absorption Subscale (see Appendix 'J' for measurement protocol). The scale can be scored in terms of individual subscales by summing up the items in each subscale yielding three subscale scores. An overall score on work engagement can also be obtained by adding all the items of the scale. None of the items was reverse scored. Higher scores on this scale indicate higher levels of work engagement and vice versa.

The UWES (original version) is one of the most widely used scale of work engagement that has been validated in several countries through confirmatory factor analyses and showed that the fit of the hypothesized three-factor structure to the data was superior to that of alternative factor models (Bakker, Schaufeli, Leiter, & Taris, 2008). Schaufeli et al. (2006) reported that the data for the shorter version of the UWES was obtained from 10 countries around the globe (N = 14521) and the results indicated that the original version of UWES can be shortened to nine items while retaining its sound psychometric properties. The factorial validity of UWES9 was demonstrated through confirmatory factor analysis. The internal consistency of this scale ranged from .85 to .92 (median = .92) across the 10 countries. The alpha coefficients for the subscales were also satisfactory as alpha ranged from .60 to .88 (median = .77, Finland α = .65; and France α = .60, all other countries demonstrated alpha coefficients greater than .70) for vigor subscale; for dedication subscale the alpha ranged from .75 to .90 (median = .85); and for absorption subscale it ranged from .66 to .86 (median = .78, Spain α = .66; the rest of countries demonstrated alpha coefficients greater than .70). Schaufeli et al. have also demonstrated the temporal stability of the UWES9 as it was administered twice with an interval of 1 year in Australia and Norway. The stability coefficients for vigor, dedication, and absorption for Australia were .61, .56, and .60, respectively, and for Norway were .71, .66, and .68, respectively. The corresponding values of the total nine-item score for Australia and Norway were .64 and .73, respectively.

Job Related Affective Wellbeing Scale (JAWS). In the present research, Job Related Affective Well Being Scale (JAWS) developed by Katwyk, Fox, Spector, and Kelloway (2000) was used for measuring job related affective wellbeing of university teachers (see Appendix 'K' for measurement protocol). JAWS comprises of 20 items and represents the four subscales that fell along two dimensions, pleasurableness, and arousal. Alternatively, the scale can be scored on two dimensions: positive emotions and negative emotions or a single dimension of job related affective wellbeing. The scale measures an individual's emotional reactions to his/her job by requiring respondent to identify how often they had experienced specific emotions in the prior 30 days on a 5-point Likert scale (1 = "*never*" and 5 = "*always*"). The present study has scored JAWS on single dimension of job related affective wellbeing where items 2, 3, 4, 7, 8, 9, 14, 15, 16, and 17 were reverse scored. Higher scores on the scale indicate higher levels of job related affective wellbeing and vice versa.

Katwyk et al. (2000) reported an alpha of 0.95 for the 30-item version of the scale, which is comparable to the alpha of 0.93 obtained for the 20-item version of the JAWS used in this study. The scale has also been used in Pakistan with a satisfactory level of internal consistency, as alpha coefficient for the whole scale was .84 whereas alpha coefficients of .85 and .76 were reported for positive emotions and negative emotions subscales respectively (Adil, 2008).

Organizational Citizenship Behavior Scale (OCBS). Participants' OCB ratings were gathered using the Organizational Citizenship Behavior Scale (OCBS) developed by Williams and Anderson (1991). The scale comprises of 14 items (see Appendix 'L' for measurement protocol) and operationalizes OCB in terms of two subscales i.e., organizational citizenship behaviors targeted at organizations (OCBO) and organizational citizenship behaviors targeted at interpersonal level (OCBI). Item nos. 1 to 7 measure OCBO whereas item nos. 8 to 14 assess OCBI. The scale presents different instances of organizational citizenship behaviors and asks the respondents to indicate the extent to which they have demonstrated each of the enlisted behavior on a 5-point Likert scale (1 = "*strongly disagree*" to 5 = "*strongly agree*"). Item nos. 3, 4, and 5 are reverse scored. The responses on all the items are summed up after getting

the negative items reverse scored for obtaining a numerical measure of overall OCB or the items in each subscale are separately summed up to get organizational and interpersonal OCB score. High score on the overall scale or its subscales indicate high levels of OCB and vice versa.

The scale has demonstrated satisfactory level of internal consistency in various studies. For instance, William and Anderson (1991) have reported alpha coefficients of .88 and .75 OCBI and OCBO subscales respectively. Likewise, Cropanzano and Byrne (2000) found alpha of .89 and .72 for interpersonal OCB subscale and organizational OCB subscale respectively.

In-Role Performance Scale (IPS). Job performance was measured using William and Anderson's (1991) In-Role Performance Scale (IPS) which has consistently been used for the evaluation of job performance (see Appendix 'M' for measurement protocol). It consisted of seven items and can be used either as a self-report or supervisor-report measure of job performance. In the present study, this scale has been used as a self-report measure where participants rated how well they believe they perform the activities required by their jobs based on a 5-point Likert scale (1 = "*strongly disagree*" to 5 = "*strongly agree*"). Item nos. 6 and 7 are reverse scored. The responses on all the items are summed up after getting the negative items reverse coded to yield a numeric measure of respondent's job performance with high score suggesting high job performance and vice versa.

The scale has demonstrated excellent internal consistency across various studies. For instance, Mehta (2004) reported that the scale has been a reliable measure of task performance with $\alpha = .81$. In the same vein, Chu and Hsu (2011) found an alpha of .89, whereas, William and Anderson (1991) reported an alpha coefficient of .85 for this scale testifying its internally consistent structure.

Workplace Deviance Scale (WDS). The degree to which participants engaged in particular counterproductive work behaviors (CWB) was assessed using Bennett and Robinson's (2000) Workplace Deviance Scale (see Appendix 'N' for

measurement protocol). This scale separates workplace deviance into organizational and interpersonal deviance. It consists of 19 items where first 12 items constitute Organizational Deviance Subscale whereas the last seven items (item no. 13 to 19) make up Interpersonal Deviance Subscale. The scale measures individual's counterproductive work behaviors by requiring respondents to identify how often they were engaged in specific behaviors given in each item of the scale on a 5-point Likert scale (1 = "*never*"; 2 = "*once or twice a year*"; 3 = "*several times a year*"; 4 = "*once or twice a month*"; 5 = "*weekly*"). None of the items was reverse scored. The responses on all the items are summed up to get a total score of counterproductive work behaviors with higher the score, higher the counterproductive work behaviors and vice versa. Alternatively, the items across each subscale may separately be summed up to get a numerical measure of organizational and interpersonal work deviance with higher the scores, higher the corresponding construct.

The development of Bennett and Robinson's (2000) scales involved multistep procedures where one group of workers recorded deviant behaviors that they had demonstrated at some point of time at their work. These behaviors were then appraised by another group of workers who identified the most common deviant behaviors. The scale constitutes a psychometrically sound operationalization of counterproductive work behaviors. The authors reported that confirmatory factor analysis verified a 2-factor structure with an acceptable fit. Preliminary evidence of construct validity has also been provided with levels of internal consistency (α = .81 for Organizational Deviance Subscale and .78 for Interpersonal Deviance Subscale). Diefendorff and Mehta (2007) also reported excellent alpha reliability coefficients of .81 for both the subscales.

Maslach Burnout Inventory-ES. The most popular and most frequently used measure of burnout is Maslach Burnout Inventory (Schaufeli & Buunk, 2003). The inventory was developed by Maslach, Jackson, and Leiter (1996) and it has three versions: the Human Service Survey (HSS), the Educator Survey (ES), and the General Survey (GS). The HSS is used for measuring burnout in human service professions whereas ES is used for assessing burnout in teachers. Both versions

consist of 22 items measuring the three components of burnout including emotional exhaustion, depersonalization, and reduced personal accomplishment. The MBI-GS is more generic and can be used across a variety of occupational groups other than human service and teaching professions. It incorporates emotional exhaustion, cynicism, and reduced professional efficacy as the constituents of burnout. Numerous research studies in English-speaking countries, including the United States, Canada, Great Britain, Australia, and New Zealand have used original version of the MBI. MBI has also been translated into many languages, including Finnish, French, Dutch, Spanish, Hebrew, Italian, German, Swedish, Polish, and Japanese (Maslach & Leiter, 1997).

The present study has operationalized burnout in terms of MBI-ES (see Appendix 'O' for measurement protocol) which measures the same three burnout dimensions as the MBI. The MBI-ES is almost same as the MBI except that it uses word *student* in place of *recipient*. This self-report 22-item inventory espouses an ordinal 7-point rating scale with full frequency anchors (0 = "Never" to 7 = "Everyday") and partial intensity anchors (Very Mild, Moderate, and Very Strong) whereby respondents are asked to indicate the extent to which they behaved or felt in consonance with the statements of the inventory. The present study has utilized frequency anchors because this scale provides refined level of measurement. Item nos. 1, 2, 3, 6, 8, 13, 14, 16, and 20 measure Emotional Exhaustion; item nos. 5, 10, 11, 15, and 22 assess Depersonalization whereas item nos. 4, 7, 9, 12, 17, 18, 19, and 21 measure Personal Accomplishment. Together the subscales of the MBI-ES provide a three dimensional perspective on burnout.

The inventory can provide two types of operationalization of burnout: A high degree of burnout is reflected in high scores on Exhaustion and Depersonalization and low scores on Personal Accomplishment or alternatively all the items of Personal Accomplishment subscale are reverse scored which means that high the score on the three subscale, higher the burnout and vice versa. The current study has incorporated the second operationalization and thus all the items of Personal Accomplishment are reverse scored. On Emotional Exhaustion subscale, score ranges of 0-16, 17-26, and over 27 indicate low, moderate, and high levels of emotional exhaustion respectively.

Score ranges of 0-6, 7-12, and over 13 indicates low, moderate, and high levels of Depersonalization respectively. Reduced Personal Accomplishment subscale is inversely scored and its potential range is 0 to 48. Score ranges of over 37, 31-36, and 0-30 indicate low, moderate, and high levels of Reduced Personal Accomplishment.

The support for factorial structure and internal consistency of each factor of MBI in various studies MBI (Schaufeli & Enzmann, 1998) provides empirical support for psychometric quality of the. The published MBI manual (Maslach, 1996) quotes two studies that confirm the reliability and validity of the MBI-ES. In the first study of 469 Massachusetts teachers, Iwanicki and Schwab (1981) reported Chronbach alpha coefficients of .90 for Emotional Exhaustion, .76 for Personal Accomplishment, and .76 for Depersonalization. The second study of 462 California teachers, Gold (1984) found internal consistency estimates of .88, .74, and .72 for emotional exhaustion, depersonalization, and personal accomplishment, respectively. Factor analyses of both of these studies validated factorial structure of the MBI-ES. Although the three burnout dimensions are distinct components of burnout, Maslach et al. (1996) demonstrated a significant and positive association between Emotional Exhaustion and Depersonalization (.52) and significant negative relationship between Depersonalization and Personal Accomplishment (-.26) and Emotional Exhaustion and Personal Accomplishment (-.22). Recently, Gaitan (2009) provided substantial evidence for internally consistent structure of MBI-ES by reporting Chronbach's Alpha coefficients of .62 for Depersonalization, .87 for Emotional Exhaustion, and .87 for Personal Accomplishment. Likewise, Tucker (2009) also reported Chronbach's Alpha estimates of .80 for Depersonalization, .88 for Emotional Exhaustion, and .78 for Personal Accomplishment.

Procedure. The participation in this research was voluntary and informed consent was taken from the participants (see Appendix 'P' for consent letter). They were briefed about the purpose of the present research and were assured about the confidentiality of the information and queries they had provided on the questionnaire. They were requested to provide their demographic information such as age, gender, job experience, job status, academic qualification, designation, the

faculty, and the university they belonged to on a specially designed Demographic Information Sheet (see Appendix 'Q'). Participants were requested to read each of the statement of questionnaire booklet and indicated any statement, which was confusing and ambiguous. They were instructed to mark each of the word/term, proverbs, and phrasal verbs whose contextual or figurative meaning was difficult to understand. Participants' opinion about the cultural relevance of each statement and its applicability to the occupational context of university teaching was also sought.

Results. The average time taken by the participants in filling out the questionnaires was 46.64 minutes with a standard deviation of 6.97 minutes. Participants identified certain items of various scales that they found ambiguous to understand. Moreover, certain words and phrases were also highlighted by the participants that were difficult to comprehend. Some items were also found to be irrelevant to the job context of Pakistani university teachers.

The difficult word or phrases, irrelevant and ambiguous items identified by the participants are presented in Table 2.

Table 2

Difficult Words/Phrases and Ambiguous or Irrelevant Items (N = 8)

Scale	Item #	Statements	Problem With Item
PCQ	5	I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.	Not relevant in the context of university
PCQ	15	I can be "on my own", so to speak, at work if I have to.	Ambiguous item
PCQ	16	I usually take stressful things at work in stride.	Difficult phrase "in stride"
PCQ	20	If something can go wrong for me work-wise, it will.	Ambiguous item

Continued…

Scale	Item #	Statements	Problem With Item
PCQ	24	I approach this job as if "every cloud has a silver lining.	Difficult phrase "every cloud has a silver lining".
PANAS	18	Jittery	Difficult word "Jittery"
WDS	10	Used an illegal drug or consumed alcohol on the job.	Irrelevant item
WDS	17	Played a mean prank on someone at work	Difficult word "prank"
MBI-ES	20	I feel I am at the end of my rope.	Difficult phrase "end of my rope"

Note. PCQ = PsyCap Questionnaire. PANAS = Positive and Negative Affect Schedule. WDS = Workplace Deviance Scale. MBI-ES = Maslach Burnout Inventory-Educator Survey.

4. Expert Opinion on Instruments

The fourth part of pilot study was undertaken in order to glean expert opinion on the suitability and aptness of instruments selected for the present study. The wisdom and scholarship of the experts helped in tailoring the instruments to the indigenous needs and characteristics of the study population, which in the present case comprises of university teachers.

Method. The objective of seeking expert opinion on the instruments selected for the present study was to ascertain their face as well as content validity. The expert opinion was also helpful in further scrutiny of the instruments for their readability, comprehension, and relevance to the context of university teacher's job in Pakistani work milieu. The experts comment on the psychometric rectitude of the scales in terms of the rating scales employed and the scale anchors were also sought in this step.

Participants. The sample of the experts comprised of five teachers of National Institute of Psychology all of whom were having PhD degrees in psychology. Two of them were full professors of psychology and three were assistant professors. All the experts have extensively been involved in research and had sound knowledge of psychometrics.

Instruments. The experts were provided with brief introduction of each construct and the scale measuring it so that they could appreciate the exact nature of each construct and its operationalization. Along with this introductory document, the instruments distributed among the experts for their scholarly opinion included PsyCap Questionnaire (PCQ; Luthans, Avolio, Avey, & Norman, 2006), Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), Authentic Leadership Questionnaire (ALQ; Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008), Psychological Ownership Questionnaire (POQ; Avey, Avolio, Crossley, & Luthans, 2009), Quantitative Overload Subscale of Role Overload Scale (Dekker & Barling, 1995), Coworker Support, Supervisor Support, and Decision Authority Subscales of Job Content Questionnaire (Karasek, 1985), Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003), Job Related Affective Wellbeing Scale (JAWS; Katwyk, Fox, Spector & Kelloway, 2000), Organizational Citizenship Behavior Scale (William & Anderson, 1991), In-role Performance Scale (William & Anderson, 1991), Workplace Deviance Scale (Bennett & Robinson, 2000), and Maslach Burnout Inventory-Educator Survey (Maslach, Jackson, & Leiter, 1996). All these instruments were in English language. The details of these instruments can be seen in fourth part of pilot study.

Procedure. The experts were contacted in their offices and after explaining the nature and objectives of the present research implored them to give their feedback on the appropriateness, ease of comprehension, psychometric quality, and content validity of various instruments. They were further requested to evaluate the relevance of all the scales for Pakistani university teachers. While getting the instruments back from each expert, a discussion session was held in which each expert elaborated on

his/her written feedback and answered the researcher's queries. The researcher paid heart-felt tribute to all the experts for their precious time and their erudite guideline for the refinement of instruments.

Results. The expert opinion proved very fruitful in aligning the instruments with the objectives of the present study as experts suggest certain invaluable modifications in various items of scales and the scale anchors, which helped researcher in distilling the instruments further. The experts agreed upon the content validity of all the scales and suggested that the items with uncommon English proverbs and phrases might have been translated in simple English. Almost all the items presented in Table 2 were also highlighted by the experts for potential modifications. None of the expert was of the opinion of getting the instruments translated into Urdu in view of erudite population of university teachers. The experts also suggested that the instruments could have been better adapted to the university settings by replacing the words of company and organization with university or department. It was further suggested that the rating scale anchors of Organizational Citizenship Behavior Scale (William & Anderson, 1991) should be changed from agreement continuum (*strongly agree* to *strongly disagree*) to frequency continuum (*never* to *always*). This change was suggested in view of the fact that Organizational Citizenship Behavior Scale presents certain behavioral statements depicting various instances of citizenship behavior. Such behavioral statements could better be responded at frequency rating anchors rather than agreement rating anchors which could be more effective in case of attitude variables. Mohammad, Habib, and Alias (2011) also modified the agreement anchors of this scale with frequency anchors in their study of job satisfaction and OCB among the employees of a Malaysian university.

5. Committee Approach for the Adaptation of Instruments

The feedback from expert opinion paved the way for adaptation of the instruments for the population of Pakistani university teachers. A committee approach was adopted for adaptation of various scales to the endemic needs and characteristics of university teachers in Pakistan.

Method. The instruments selected for the present study were developed in general organizational context except for Maslach Burnout Inventory-Educator Survey (Maslach, Jackson, & Leiter, 1996), which was specifically developed for educators. It was, therefore, of utmost importance to adapt the instruments to the job context of university teachers in Pakistan so that the questions might not appear alien to the respondents. Replacement of difficult words and uncommon phrases and proverbs with simple English words was another objective of adapting the instruments so that their comprehension would have been similar across the participants. Finally, dealing with the items that appeared to be irrelevant in fourth and fifth steps of pilot study was also an important task of adaptation of the instruments.

Participants. The committee selected for the adaptation of the instruments comprises of five teachers of National Institute of Psychology, Quaid-i-Azam University, Islamabad, besides the researcher himself. The committee included three PhDs (one professor and two assistant professors) and two PhD scholars of the institute.

Instruments. The instruments alluded to in step 3 and 4 were given to committee members for their adaptation to the job context of university teachers in Pakistan. The details of these instruments were presented in fourth step of pilot study.

Procedure. Faculty members of National Institute of Psychology, Quaid-i-Azam University, Islamabad, were contacted and their consent for participation in

the adaptation of instruments of the present study was sought. They were briefed about the nature and objectives of the study and their role as a member of committee on adaptation of the instruments. The five faculty members who consented for participation in the committee were given the instruments and were requested to adapt any item, scale, and response format that they did not deem appropriate to the job context of university teachers. A time interval of one month was set for the process of adaptation after which the researcher began collecting the adapted instruments from the members of committee. It took about 45 days in getting the five adapted versions of the instruments. Finally, the committee held one discussion session of about 90 minutes for finalizing the recommended modifications in the scales. The recommended changes were incorporated into scales if it were approved by at least three members of the committee.

Results. The committee on adaptation recommended that the words company and organization should be replaced with university. Accordingly, the word 'company' in item 3 and 5 of PsyCap Questionnaire (PCQ; Luthans, Avolio, Avey, & Norman, 2006) and item 9 of Workplace Deviance Scale (Bennett & Robinson, 2000) was replaced with 'university'; the word 'organization' in item 1, 2, 3, 4 , 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, and 16 in Psychological Ownership Questionnaire (POQ; Avey, Avolio, Crossley, & Luthans, 2009) was replaced with the word 'university'; the words 'organizational property' in item 6 of Organizational Citizenship Behavior Scale (William & Anderson, 1991) were changed with the words 'university's property'; the words 'business expenses' in item 3 of Workplace Deviance Scale (Bennett & Robinson, 2000) were replaced with 'departmental/university expenses'. In Authentic Leadership Questionnaire (ALQ; Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008), statements refer to 'My Boss' which was changed to 'My Chairperson/In Charge/Head of Department'. A similar change was made in the instructions of this questionnaire. In item 10 of this questionnaire 'asks for' was added in parenthesis after 'solicits' to make the item more clear. In item 3 of Psychological Ownership Questionnaire (Avey et al., 2009), 'belonging' was added in parenthesis after 'property'. Likewise in item 8 of Utrecht

Work Engagement Scale (UWES; Schaufeli & Bakker, 2003), 'immersed' was followed by 'absorbed' in parenthesis. The word 'callous' in item 10 of Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) was followed by 'insensitive' in parenthesis. These additions in parenthesis were made in order to make the meanings of preceding words clearer to the respondents. The modifications of entire items because of difficult words/phrases and uncommon proverbs are presented in Table 3.

Table 3

Adapted and Original Items of Various Scales

Scale	Item #	Original Item	Adapted Item
PCQ	5	I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.	I feel confident contacting people outside the university (e.g., old students, parents of students) to discuss problems.
PCQ	15	I can be "on my own", so to speak, at work if I have to.	If required so, I can do my work on my own.
PCQ	16	I usually take stressful things at work in stride.	I usually handle stressful thing at work without getting upset.
PCQ	20	If something can go wrong for me work-wise, it will.	If something related to my work can go wrong for me, I cannot halt it.
PCQ	24	I approach this job as if "every cloud has a silver lining.	I approach this job with a ray of optimism in my mind.
PANAS	18	Jittery	Tense
WDS	17	Played a mean prank on someone at work	Cracked a nasty joke at someone at workplace.
MBI	20	I feel I am at the end of my rope.	I feel as if I am going beyond the point of my endurance.

Note. PCQ = PsyCap Questionnaire. PANAS = Positive and Negative Affect Schedule. WDS = Workplace Deviance Scale. MBI-ES = Maslach Burnout Inventory-Educator Survey.

6. Pilot Study

The final step of study I comprised of pilot study, which was imperative in order to assess the psychometric properties of adapted instruments for operationalization of different variables of the present study. Moreover, this study also sought the initial pattern of relationships among different variables of this research. More specifically, the objectives of pilot study were as follows:

1. To examine the descriptive statistics such as mean, standard deviation, range, kurtosis, and skewness of instruments being used in this research.
2. To evaluate the internal consistency of instruments of the present study in terms of their Cronbach's alpha coefficients.
3. To assess the factorial structure of multidimensional constructs of the present study.
4. To explore the preliminary pattern of relationship among variables of the present study.

Sample. A convenient sample of N = 100 full time teaching employees of various universities from capital city and the Punjab province of Pakistan has been taken for pilot study. The universities in the sample from Islamabad include International Islamic University (n = 40) and National University of Science and Technology (NUST, n = 27). From the Punjab province, Government College University, Lahore (n = 12) and University of Sargodha, Sargodha (n = 21) were included in the sample. The sample comprised of 42 male teachers and 58 female teachers among which 14 were research associates, 50 were lecturers, and 32 were assistant professors, 2 associate professors, and 2 professors. 67 teachers were recruited from the capital city whereas 33 teachers were from the Punjab province. The participants belonged to various departments including psychology, mathematics, physics, English, Urdu, business administration, biological sciences, engineering, history, sociology, law, and education. 31 teachers held masters/BS degrees, 39 had MPhil/MS degree, while 30 were having PhD degrees in their respective field. The inclusion criteria of the sample was an age range of 22 to 60 (M = 29.68, SD = 6.24)

years, educational baseline of masters (16 years of formal education), and a minimum job experience of 1 (M = 3.92, SD = 4.16) year. The inclusion criteria pertaining to age was important because typically Pakistani students completed their 16 years of education up to the age of 22 years; educational baseline of 16 years of formal education was essential because it was the minimum academic qualification for a university teaching position; and a minimum job experience of one year was necessary so that the participants of the present study have been properly socialized into their job roles and university culture.

Instruments. The instruments used for measuring various construct of the present study have already been discussed in Step 3 (see pp. 103-116 for details).

Procedure. The chairpersons of various academic departments of different universities were contacted by the researcher on behalf of National Institute of Psychology and were requested to grant permission for gleaning data pertaining to different variables of the present study. The purpose, objectives, and rationale of this study were explained to the chairpersons and they were assured that the information collected would never be used for any purpose other than that of the present research. After getting the consent of the chairpersons, the faculty members who consented to participate in the study were briefed about the purpose of the study and the booklets containing the questionnaires were handed over to them. Besides the written instructions at the beginning of each booklet, the respondents were also verbally instructed as how to respond to various items in the booklet. They were requested to read each statement in the booklet carefully and respond as honestly and accurately as possible by checking the option that they deemed closest to their personal experiences. The respondents were assured that the information they had provided would only be used for research purposes and their personal identity would never be disclosed. The researcher heartily thanked them for their support and participation in this study. The filled questionnaires from the teachers were collected back by the researcher himself or his accomplices.

Results of Pilot Study. The data collected from the participants were subjected to various statistical analyses, which included descriptive analyses of various instruments so that the data on these instruments could adequately be described. Furthermore, Cronbach's Alpha Coefficients of Reliability were computed for various scales and subscale for ascertaining the internal consistency of the scales. Item-total correlations have also been computed to identify the items that may have not been significantly related with the total score on the scale. The item-total correlation could be one indicator of construct validity of scales as well. Correlations among subscales of each scale have also been examined to discern the pattern of relationship between a construct and its various constituent factors. Finally, correlation matrix was computed among all the constructs of the present study in order to inspect the initial pattern of relationship among the variables. SPSS-21 was used for these analyses. The findings of pilot study are illustrated in Table 4 to 26.

Table 4

Descriptive Statistics and Cronbach's Alpha Coefficients of Scales/Subscales Used in the Present Study (N = 100)

Scales/Subscales	No. of Items	*M*	*SD*	*α*	*Sk*	*Ku*
PsyCap Questionnaire	24	115.01	13.41	.89	-.72	.67
Self-Efficacy Subscale	6	29.55	4.44	.84	-.89	.91
Hope Subscale	6	30.12	4.27	.83	-1.04	1.61
Resilience Subscale	6	28.14	3.98	.67	-.64	.76
Optimism Subscale	6	27.20	3.72	.53	.12	-.31
Positive Affectivity Subscale of PANAS	10	38.51	5.63	.78	-.38	-.34
Negative Affectivity Subscale of PANAS	10	17.89	6.43	.84	.97	.56

Continued…

Scales/Subscales	No. of Items	*M*	*SD*	*α*	*Sk*	*Ku*
Authentic Leadership Questionnaire	16	56.95	13.26	.94	-.71	.11
Self-Awareness Subscale	4	14.56	3.83	.79	-.39	-.37
Relational Transparency Subscale	5	14.35	3.63	.77	-.67	-.05
Internalized Perspective Subscale	4	17.73	4.37	.84	-.73	.22
Moral Balanced Processing Subscale	3	10.30	3.20	.88	-.60	-.39
Psychological Ownership Questionnaire	16	70.42	9.20	.79	-.01	.58
Territoriality	4	12.73	5.00	.87	.15	-.99
Promotive Psychological Ownership	12	56.69	8.06	.86	-.71	.95
Self-efficacy Subscale	3	15.25	2.49	.88	-1.36	1.84
Accountability Subscale	3	12.05	3.41	.84	-.16	-.68
Belongingness Subscale	3	15.04	2.50	.83	-.57	-.44
Self-identity Subscale	3	15.34	2.50	.85	-.96	.66
Quantitative Overload Subscale	6	22.60	5.48	.76	-.53	.05
Decision Authority Subscale	3	11.77	3.41	.80	-.30	-.81
Coworker Support Subscale	4	17.54	3.17	.72	-.17	.16
Supervisor Support Subscale	4	18.22	4.48	.91	-1.05	1.18
Utrecht Work Engagement Scale	9	41.04	8.34	.84	-1.13	.98
Vigor Subscale	3	12.79	3.50	.73	-1.13	1.69
Dedication Subscale	3	14.76	3.36	.82	-1.32	1.28
Absorption Subscale	3	13.49	3.07	.59	-.43	-.58
Job Related Affective Well Being Scale	20	80.29	10.21	.89	-.78	.48

Continued…

Scales/Subscales	No. of Items	*M*	*SD*	*α*	*Sk*	*Ku*
OCB Scale	14	53.10	6.69	.69	-.14	.17
OCBO	7	28.58	3.92	.64	-.86	.59
OCBI	7	24.52	4.63	.67	.13	-.27
In-role Performance Scale	7	30.73	3.88	.80	-1.63	3.15
Workplace Deviance Scale	19	27.38	10.58	.93	2.09	4.70
CWBO	12	17.27	6.65	.89	2.05	4.63
CWBI	7	10.11	4.76	.90	2.17	4.88
Maslach Burnout Inventory	22	33.24	15.81	.80	.57	.03
Emotional Exhaustion Subscale	9	16.65	8.56	.76	.63	.50
Depersonalization Subscale	5	7.21	6.33	.74	.78	-.42
Personal Accomplishment Subscale	8	9.38	7.10	.73	.74	-.08

Table 4 presents means, standard deviations, coefficient of skewness, coefficient of kurtosis, and Cronbach's alpha coefficients of reliability for various scales and their subscales that have been used in the present study. As evident from the Table, most of the scales and their subscales have satisfactory reliability coefficients showing their internally consistent structure. The alpha coefficients ranged from .53 to .93. Only Optimism Subscale of PsyCap Questionnaire (α = .53) fell below the traditional level of .60. All other scales and subscales had alpha coefficients greater than .60. According to Murphy and Davidshofer (2001), reliability estimates below .60 are usually regarded as unacceptably low. Thus, the results are suggestive of the acceptable reliability of operationalization of various constructs of the present study. Although reliability estimates of some of the subscales are below the traditional benchmark of .70, it is quite satisfactory in case of total scale scores, which serve the purpose of this research. The present study has not focused upon the

factorial structure of various constructs; rather it has investigated the relationship among various super-ordinate constructs. Standard deviations of variables were neither aberrantly high nor too small, which suggested a reasonable spread of data around the mean. Furthermore, low to moderate standard deviation provides a measure of fit for the model where mean is the parameter of interest. The low to moderate values of standard deviations, therefore, also supported the notion that means were acceptable representative values of their corresponding variables. Mean, standard deviation, and alpha coefficients for the complete Positive and Negative Affect Schedule are not reported since the scale has been scored and interpreted on two independent dimensions of positive affectivity and negative affectivity. Coefficients of skewness and kurtosis are within the acceptable range except for Organizational Deviance Scale and its subscales. The distribution of scores on Organizational Deviance Scale appeared to be positively skewed and leptokurtic which can be attributed to social desirability effect.

Factorial structure of instruments of the present study. The factorial structures of all measurement instruments of the present study were examined through exploratory factor analyses (EFA). EFAs were needed to assess the factorial structure of constructs since the present study involves various constructs of positive organizational behavior like psychological capital, authentic leadership, work engagement, and psychological ownership, which have been originally developed and validated in western culture. These constructs are rarely investigated in the population if university teachers of Pakistan. Therefore, the western operationalization of these constructs needs to be cross-validated in our culture. Besides that, correlations of various subscales of each scale were also examined.

The sample size of 100 is certainly not excellent for factor analysis, however, there are certain guidelines in the published literature that suggest the adequacy of a sample of 100 (see Gorsuch, 1983; MacCallum, Widaman, Zhang & Hong, 1999). Moreover, the sample of this pilot study also meets the criteria of N: p ratio of 5 i.e., the subjects-to-variables ratio should be no lower than 5 (Bryant & Yarnold, 1995,

Garson, 2008; MacCallum et al., 1999). Furthermore, oblique rotation (promax) was used in factor analyses for correlated factors (Williams, Brown, & Onsman, 2012) since various component of each construct must be correlated with one another if all of them are measuring different facet of a single superordinate construct. Furthermore, Costello and Osborne (2005) asserted that oblique rotation is often seen as producing accurate results for research involving human behaviors, particularly when data do not meet priori assumptions. Promax was preferred to oblimin as it is a faster procedure for large data sets (Field, 2009). However, as noted by Costello and Osborne (2005) both promax and oblimin tend to produce similar results and there is no preferred method of oblique rotation in literature. Table 5 presents the findings of the aforementioned analyses for PsyCap Questionnaire.

Factor Analysis of PsyCap Questionnaire. PsyCap Questionnaire was subjected to exploratory factor analysis in order to explore it dimensional structure. At the outset, the factorability of the 24 PsyCap Questionnaire items was assessed through several well-established standards for the factorability of a correlation matrix. Firstly, an inspection of correlation matrix of the 24 items revealed that all items had a correlation of at least .3 with at least one other item, signifying sensible factorability. Secondly, Bartlett's test of sphericity was significant (χ^2 (276) = 1158.31, p = .000) which indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. Thirdly, the Kaiser-Meyer-Olkin measure of sampling adequacy of .82 was greater than the commended value of .6 suggesting the suitability of factor analysis. Fourthly, except for item no. 20, the diagonals of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further augmented the belief that each item shared some common variance with other items. Given these overall considerations, factor analysis was undertaken with all 24 items.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of PsyCap Questionnaire. The initial

eigen values showed that the first factor explained 33.74% of the variance; the second factor accounted for 8.45% of the variance; the third factor contributed 8.27% of the variance; and a fourth factor explicated 6.04% of the variance. The fifth and sixth factors had eigen values of just over one, explaining 4.86% and 4.24% of the variance respectively. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Four, five, and six factor solutions were examined and the four-factor solution was preferred because of certain reasons. Firstly, it explained a sensible portion of the variance (56.49%). Secondly, the four-factor solution was in accord with the pertinent theory of psychological capital. Thirdly, scree plot demonstrated that eigen values were levelled off after four factors. Finally, fifth and sixth factors were difficult to interpret and had insufficient number of primary loadings.

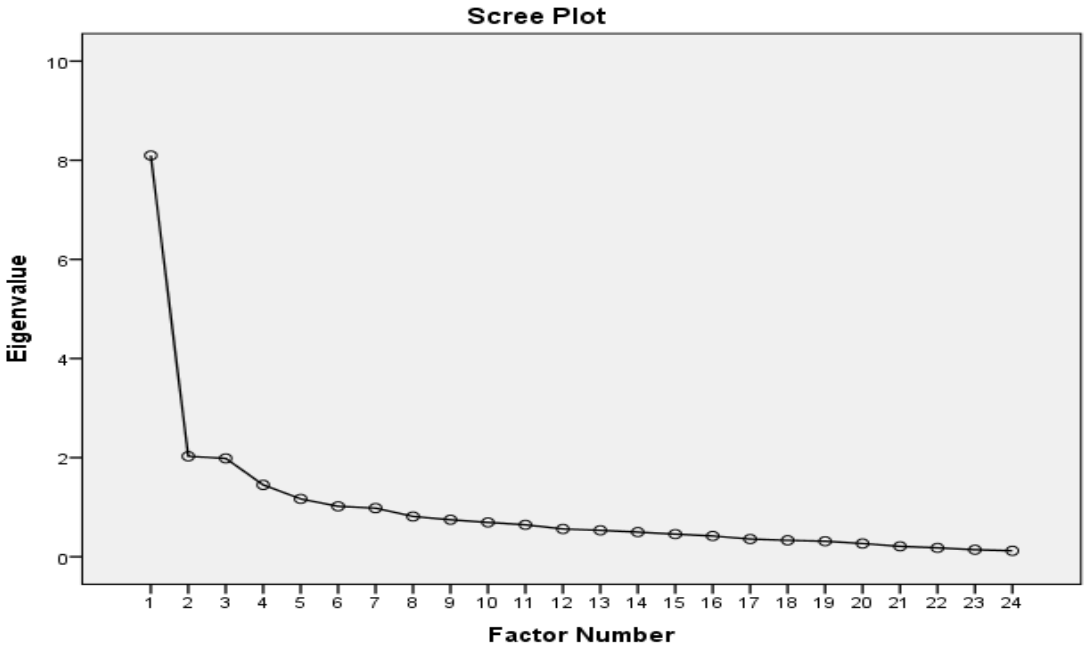

Figure 4. Scree plot for factor analysis of PsyCap Questionnaire

Table 5

Factor Loadings Through Principle Axis Factoring with Promax Rotation for PsyCap Questionnaire (N = 100)

	Standardized Factor Loadings			
Item No.	F_1	F_2	F_3	F_4
SE1	.19	.21	**.41**	.01
SE2	**.39**	.09	**.34**	.28
SE3	**.30**	.25	.24	-.02
SE4	.05	.17	**.60**	.11
SE5	-.04	-.01	**.67**	.022
SE6	-.09	-.16	**.85**	-.01
HO7	-.08	-.14	**.82**	-.08
HO8	**1.07**	-.31	-.11	.13
HO9	**.79**	-.02	-.12	.02
HO10	**.87**	-.02	-.08	.02
HO11	**.59**	.23	.09	-.14
HO12	**.33**	.28	.17	-.21
RE13	.024	.15	-.05	**.45**
RE14	**.41**	.22	-.01	-.15
RE15	.20	**.41**	-.04	.05

Continued…

	Standardized Factor Loadings			
Item No.	F_1	F_2	F_3	F_4
RE16	-.07	**.86**	-.26	.14
RE17	.09	**.62**	-.06	-.03
RE18	**.37**	**.42**	-.03	-.03
OP19	-.15	**.74**	-.02	.15
OP20	.01	-.07	.07	**.62**
OP21	-.01	**.73**	-.01	-.12
OP22	-.18	**.59**	.13	.02
OP23	-.02	.09	-.03	**.69**
OP24	**.66**	-.07	.04	-.04

Note. Factor loadings > .3 are in bold face

Table 5 indicated that item nos. 1, 2, 4, 5, and 6 loaded onto Factor 3 whereas item 3 loaded onto Factor 1. Since all of these items pertain to self-efficacy, it might be concluded that Factor 3 represents self-efficacy with 5 out of 6 items loading onto it. Item nos. 8, 9, 10, 11, and 12 loaded onto Factor 1 whereas item no. 7 loaded onto Factor 3. All these items were supposed to measure; therefore, Factor 1 represented hope subscale of PsyCap Questionnaire. It should also be noted that item 7 of hope loaded on self-efficacy domain whereas item 3 of self-efficacy loaded on hope domain. These two items are not loading onto their respective factors. Item nos. 15, 16, 17, and 18 constituted the second factor, which might be labeled as resilience since all of these items, are theoretically measuring resilience. Item no. 14 of resilience, however, loaded on hope factor, whereas item no. 13 loaded on Factor 4.

The other two items on the fourth factor are item nos. 20 and 23 of optimism subscale of PsyCap Questionnaire. Given that all three items (one item of resilience and 2 item of optimism) on fourth factor were reverse coded, it might be concluded that these negatively phrased items were not measuring their relevant domain; rather they were constituting a factor of their own. This might suggest a response bias from the respondents some of whom might have treated these items as positive ones. Finally, item nos. 19, 21, and 22 of optimism loaded on resilience factor whereas optimism item 24 loaded on hope factor. This suggested that optimism subscale as measured through PsyCap Questionnaire in the present sample could not be distinguished from resilience factor. Overall, the present results indicated that PsyCap Questionnaire had reliable and discriminantly valid operationalizations of hope and self-efficacy subscales, however, optimism cannot be discriminated from resilience subscale, and negative items of the scale did not appear to tape their respective domains.

Table 6

Correlations of Subscales of PsyCap Questionnaire (N = 100)

Subscales	Self-Efficacy	Hope	Resilience	Optimism	PsyCap
Self-Efficacy		.68***	.54***	.53***	.85***
Hope			.55***	.43***	.83***
Resilience				.59***	.81***
Optimism					.76***
PsyCap					

***$p < .001$

Table 6 illustrates the patterns of relationship among various subscales of PsyCap Questionnaire. The findings demonstrate that all the subscales of PsyCap Questionnaire are significantly correlated with one another. This pattern of relationship suggests that the subscales of PCQ tend to converge on a single higher order factor, which in the present case is psychological capital.

Factor Analysis of Positive and Negative Affect Schedule (PANAS). Exploratory factor analysis of Positive and Negative Affect Schedule (PANAS) was undertaken in order to examine its dimensional structure. The factorability of the 20 PANAS items was firstly confirmed as an inspection of correlation matrix of the 20 items indicated that all items had a correlation of at least .3 with at least one other item. Secondly, the significant Bartlett's test of sphericity (χ^2 (190) = 785.29, p = .000) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. Thirdly, the Kaiser-Meyer-Olkin measure of sampling adequacy of .80 was above the recommended value of .6, which also provided support for factor analysis. Fourthly, except for [a]10th item, the diagonals of the anti-image correlation matrix were all above .5, which suggested the inclusion of each item in the factor analysis. Finally, the communalities were all above .3 (except for item no. 10 with a communality of .26), which further supported the idea that each item shared some common variance with other items. These results justified the decision of factor analysis of all item of PANAS.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of PANAS. The initial eigen values showed that the first factor explained 28.12% of the variance; the second factor accounted for 12.33% of the variance; the third factor contributed 8.29% of the variance. Fourth and fifth factor explained 7% and 6% variance respectively. Finally, sixth factor explained an additional variance of 5.39%. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Two, three, four, and six factor solutions were examined and the two-factor solution was preferred because of certain reasons. Four, five, and six factor solutions were examined and the four-factor solution was preferred because of certain reasons. Firstly, it explained a sensible portion of the variance (40.46%). Secondly, the two-factor solution was in accord with the pertinent theory of PANAS. Thirdly, it was the most parsimonious solution to the factorability of data. Fourthly, scree plot demonstrated that eigen values were levelled off after two factors. Finally, the

[a] The measure of sampling adequacy (MSA) for 10th item was .493.

additional factors were difficult to interpret and had insufficient number of primary loadings.

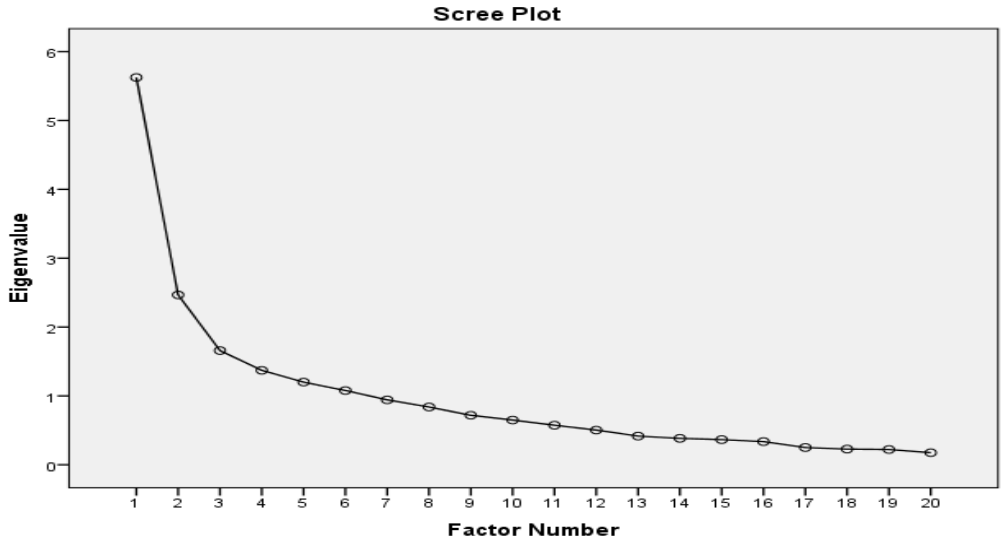

Figure 5. Scree plot for factor analysis of Positive and Negative Affect Schedule

Table 7

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Positive and Negative Affect Schedule (N = 100)

	Standardized Factor Loadings	
Item No.	F_1	F_2
PA1	-.12	**.54**
NA2	.24	-.19
PA3	.09	**.54**
NA4	**.60**	-.17
PA5	-.11	**.41**
NA6	**.73**	.22
NA7	**.83**	.16
NA8	**.39**	.11

Continued…

Item No.	Standardized Factor Loadings	
	F_1	F_2
PA9	-.12	**.41**
PA10	.09	.25
NA11	**.54**	-.07
PA12	-.11	.61
NA13	**.53**	-.05
PA14	-.11	**.64**
NA15	**.73**	-.02
PA16	-.03	**.54**
PA17	.03	**.64**
NA18	**.54**	-.23
PA19	.11	**.70**
NA20	**.70**	.02

Note. Factor loadings > .3 are in bold face

Factor loading for PANAS in Table 7 elucidated a clear two factor solutions where all items of negative affectivity (except item no. 2 for which loading on factor 1 were below .30) loaded on Factor 1 whereas all items of positive affectivity (except item no. 10 for which loading on Factor 1 were below .30) had loaded on Factor 2. This demonstrated that factorial structure of Positive and Negative Affect Schedule closely resembled the theorized structure of its authors (Watson, Clark, & Tellegen, 1988).

Factor Analysis of Authentic Leadership Questionnaire (ALQ). Authentic Leadership Questionnaire (ALQ) was subjected to exploratory factor analysis in order to examine its dimensional structure. The factorability of the 16 ALQ items was confirmed through several well-recognized standards for the factorability of a correlation matrix. Firstly, an inspection of correlation matrix of the 16 items signified that all items had a correlation of at least .3 with at least one other item, indicating reasonable factorability. Secondly, the significant Bartlett's test of sphericity (χ^2 (102) = 1067.10, p = .000) indicated that the correlation matrix was significantly different

from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. Thirdly, the Kaiser-Meyer-Olkin measure of sampling adequacy of .90 was greater than the recommended value of .6, which also enhanced the suitability of factor analysis. Fourthly, the diagonals of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item shared some common variance with other items. These overall indicators suggested that all 16 items should be included in factor analysis.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of ALQ. The initial eigen values showed that the first factor explained 52.16% of the variance; the second factor accounted for 9.44% of the variance; and the third factor contributed 6.32% of the variance. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Three, four, and five factor solutions were inspected and the four-factor solution was preferred because of certain reasons. Firstly, it explained a sensible portion of the variance (73.50%). Secondly, the four-factor solution was in accord with the pertinent theory of authentic leadership. Thirdly, it was the most parsimonious solution to the factorability of data. Fourthly, scree plot demonstrated that eigen values were levelled off after four factors. Finally, the fifth factor was difficult to interpret and had insufficient number of primary loadings.

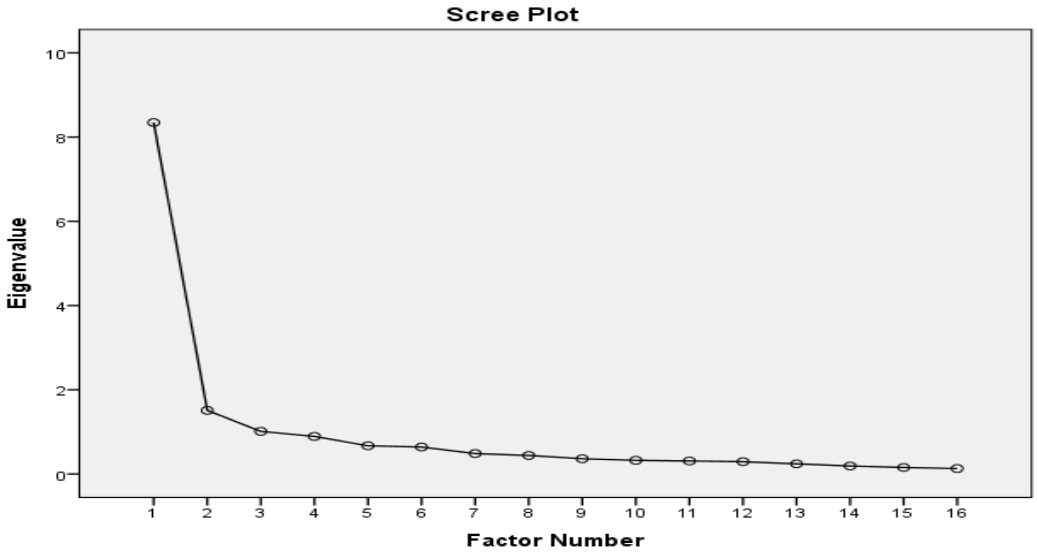

Figure 6. Scree plot for factor analysis of Authentic Leadership Questionnaire

Table 8

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Authentic Leadership Questionnaire (N = 100)

	Standardized Factor Loadings			
Item No.	1	2	3	4
SA1	.04	.14	**.48**	.10
SA2	.13	.19	**.64**	.05
SA3	.13	**.36**	**.41**	.001
SA4	-.23	**.46**	.26	**.37**
RT5	-.002	-.14	.08	**.92**
RT6	.24	**.37**	-.11	**.49**
RT7	.03	**.75**	-.02	.08
RT8	-.13	**.71**	**.39**	-.17
IP9	.03	**.63**	.25	.003
IP10	.21	**.60**	.07	-.14
IP11	**.61**	**.39**	-.19	.04

Continued…

	Standardized Factor Loadings			
Item No.	1	2	3	4
IP12	**.81**	.24	-.16	-.07
IP13	**.73**	-.006	.05	.09
BP14	**.48**	.26	.15	.000
BP15	**.86**	-.20	.24	.003
BP16	**.75**	-.17	**.36**	.009

Note. Factor loadings > .3 are in bold face.

Factor loading for ALQ in Table indicated that item nos. 1, 2, and 3 of self-awareness domain loaded on Factor 3 suggesting that Factor 3 symbolizes self-awareness subscale of ALQ. Fourth item of self-awareness, however, loaded on second factor, which has significant loadings of item nos. 7 and 8 of relational transparency subscale and item nos. 9 and 10 of internalized perspective subscale. Thus, Factor 2 appeared to be an amalgamation of various subscales of ALQ. Item nos. 5 and 6 of relational transparency loaded on Factor 4 signifying it as relational transparency factor. Finally, Factor 1 had item nos. 11, 12, 13 of internalized perspective subscale and item nos. 14, 15, and 16 of balanced processing domain of ALQ. This showed that items of internalized perspective subscale were dispersed across Factor 1 and 2 making it indiscriminant from aspects of relational transparency and balanced processing. Overall, findings of factor analysis of ALQ in the present sample demonstrated that the factorial structure of the scale did not completely match with the theoretical structure proposed by Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008). Self-awareness and relational transparency appeared to be independent factors as proposed by Walumbwa et al. (2008), however, internalized perspective seemed to be enmeshed with balanced processing domain.

Table 9

Correlations of Subscales of Authentic Leadership Questionnaire (N = 100)

Sr. #	Subscales	1	2	3	4	5
1	Self-Awareness		.76***	.68***	.63***	.87***
2	Rational Transparency			.73***	.61***	.88***
3	Internalized Perspective				.78***	.92***
4	Moral Balanced Processing					.85***
5	Authentic Leadership					

***$p < .001$

Table 9 is illustrative of the pattern of relationship among various subscales of Authentic Leadership Questionnaire. As evident from the table, all the subscales are significantly correlated with one another ($p < .001$). This suggests that all subscales are measuring a single construct of authentic leadership.

Factor Analysis of Psychological Ownership Questionnaire (Promotive Domain, POQ). Psychological ownership comprised of two distinct types of ownership namely promotive psychological ownership and preventative psychological ownership. These two distinct forms of ownership have different antecedents and consequences. Consequently, factor analysis of promotive psychological ownership and preventative ownership are separately conducted. The promotive psychological ownership was assessed by 12 items. Correlation matrix of these 12 items showed that all items had a correlation of at least .3 with at least one other item, indicating reasonable factorability. The Bartlett's test of sphericity (χ^2 (66) = 666.39, p = .000) was also significant with a high value of the Kaiser-Meyer-Olkin measure of sampling adequacy (.81) which indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The measures of sampling adequacy (MSA) along the diagonal of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item

shared some common variance with other items. These preliminary findings not only suggested that factor analysis would be an appropriate statistical treatment of data but also indicated that factor analysis should include all items of promotive psychological ownership.

The primary objective of factor analysis was to identify the factorial structure of POQ. Maximum likelihood was used as the extraction method because the items of POQ were normally distributed. The initial eigen values showed that the first factor explained 43% of the variance; the second factor accounted for 16.51% of the variance; and the third factor contributed about 12% of the variance. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Three, four, and five factor solutions were inspected and the four-factor solution was preferred because of certain reasons. Firstly, it explained a sensible portion of the variance (77.22%). Secondly, the four-factor solution was in accord with the pertinent theory of authentic leadership. Thirdly, scree plot demonstrated that eigen values were levelled off after four factors. Fourthly, it was the most parsimonious solution to the factorability of data. Finally, the fifth factor was difficult to interpret and had insufficient number of primary loadings.

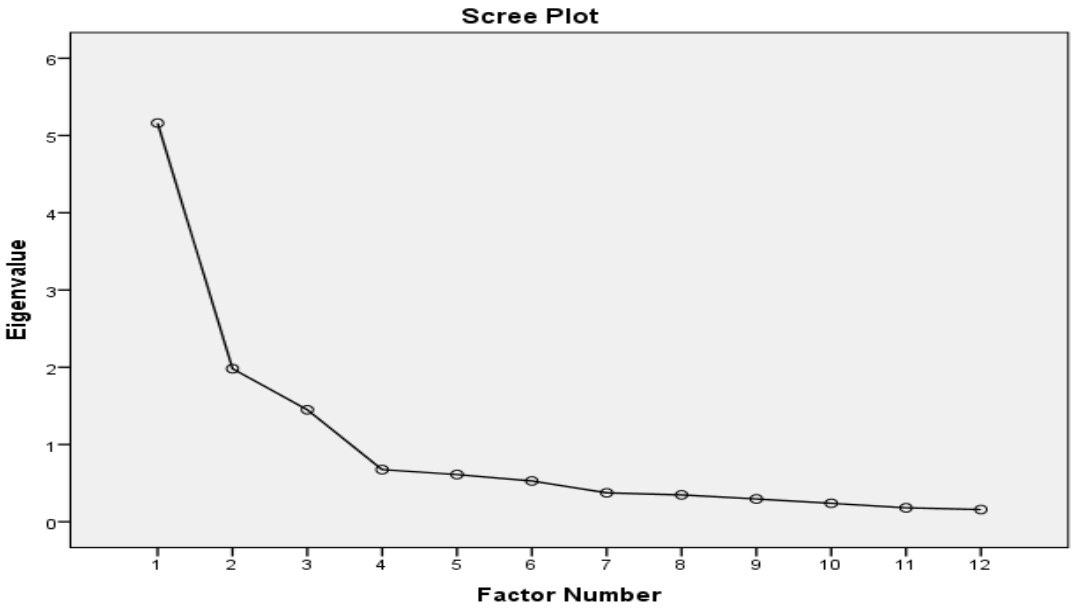

Figure 7. Scree plot for factor analysis of Psychological Ownership Questionnaire

Table 10

Factor Loadings Through Maximum Likelihood with Promax Rotation for Psychological Ownership (Promotive) Questionnaire (N = 100)

	Standardized Factor Loadings			
Item No.	F_1	F_2	F_3	F_4
SE5	.03	**.79**	-.05	.05
SE6	-.01	**.91**	.01	-.05
SE7	-.04	**.81**	.06	-.07
AC8	-.02	.20	**.54**	.05
AC9	.18	-.04	**.81**	-.17
AC10	-.13	-.04	**.90**	.16

Continued…

	Standardized Factor Loadings			
Item No.	F_1	F_2	F_3	F_4
BE11	.22	.08	-.001	**.60**
BE12	.02	-.09	.02	**1.02**
BE13	**.42**	.01	.04	**.35**
SI14	**.57**	.17	-.13	.25
SI15	**.95**	-.12	-.01	-.06
SI16	**.75**	.04	.11	-.03

Note. Factor loadings > .3 are in bold face.

Factor loading for POQ in Table 10 demonstrated its factorial structure, which closely resembles with its theoretical structure postulated by Avey, Avolio, Crossely, & Luthans (2009). Item nos. 5, 6, and 7 measuring self-efficacy loaded on Factor 2 suggesting that factor 2 embodied self-efficacy. Similarly, items nos. 8, 9, 10 measuring accountability loaded on third factor indicating that Factor 3 symbolizes accountability. All items of self-identity (item nos. 14, 15, & 16) loaded on to their respective Factor 1. Finally, item 13 of belongingness had a cross loading on self-identity factor whereas item nos. 11 and 12 of belongingness loaded on Factor 4, which could be labeled as belongingness. Overall, findings of factor analysis of POQ in the present sample confirmed the factorial validity of the scale as comprising of four discriminant yet related factors of self-efficacy, accountability, belongingness, and self-identity.

Factor Analysis of Territoriality (Preventative Domain of POQ). Territoriality was assessed through four items of Psychological Ownership Questionnaire (POQ). Correlation matrix of these four items indicated that all items are correlated with one another (r > .30). The significant Bartlett's test of sphericity (χ^2 (6) = 197.11, p = .000) with a high value of the Kaiser-Meyer-Olkin measure of sampling adequacy (.80) indicated that the correlation matrix was significantly

different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The measures of sampling adequacy (MSA) along the diagonal of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item shared some common variance with other items. Overall, these indicators suggested that factor analysis of these four items is statistically appropriate procedure. The primary objective of factor analysis was to identify the unidimensionality of items measuring territoriality. Maximum likelihood was used as the extraction method because the items of territoriality were normally distributed. The initial eigen values showed that only one factor was extracted which explained the first factor explained about 72% of the variance.

Figure 8. Scree plot for factor analysis of Territoriality (Preventative Ownership)

Table 11

Factor Loadings Through Maximum Likelihood for Psychological Ownership (Preventative) Questionnaire (N = 100)

	Factor Loadings
Item No.	F_1
Ter1	**.69**
Ter2	**.72**
Ter3	**.85**
Ter4	**.89**

Note. Factor loadings > .3 are in bold face.

Factor loading for Territoriality Subscale of POQ in Table demonstrated its unidimensional structure. All items had high loadings on a single factor, which indicated that territoriality is a unidimensional construct.

Table 12

Correlations of Subscales of Psychological Ownership Questionnaire (N = 100)

Sr #	Subscales/Scales	1	2	3	4	5	6	7
1	Self-efficacy		.36***	.37***	.46***	.72***	-.04	.61***
2	Accountability			.29**	.23*	.70***	.12	.67***
3	Belongingness				.75***	.80***	-.13	.61***
4	Self-identity					.78***	-.20*	.58***
5	Promotive Ownership						-.07	.84***
6	Preventative Ownership							.49***
7	Psychological Ownership							

*$p < .05$, **$p < .01$, ***$p < .001$

Table 12 elucidates the relationship among various subscales of Psychological Ownership Questionnaire. It suggests that Self Efficacy Subscale is positively related

with all other subscales of promotive ownership including Accountability, Belongingness, and Self Identity. It is also significantly related with the total score on Promotive Ownership domain of Psychological Ownership Questionnaire. It was negatively related with Preventative Ownership and the correlation was statistically non-significant. Accountability and Belongingness Subscales were also significantly related to all facets of promotive psychological ownership and psychological ownership; however, their relationships with preventative ownership were non-significant. Self-Identity Subscale was also positively related with Belongingness, Self-Efficacy, and Accountability Subscales as well as the overall Promotive Ownership. Its negative correlation with Preventative Ownership was statistically significant ($p < .05$). Finally, the two domains of Psychological Ownership Questionnaire including Preventative Ownership and Promotive Ownership had negligible relation with each other.

Factor Analysis of Quantitative Overload Scale (QWL). Quantitative overload was operationalized through a 6-item Quantitative Overload Scale. Correlation matrix of these six items indicated that each item had a correlation of .30 with at least one other item. A high value of the Kaiser-Meyer-Olkin measure of sampling adequacy (.77) along with the significant Bartlett's test of sphericity (χ^2 (15) = 204.14, $p = .000$) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The measures of sampling adequacy (MSA) along the diagonal of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item shared some common variance with other items. Overall, these indicators suggested that factor analysis of these six items is statistically appropriate procedure.

The primary objective of factor analysis was to identify the unidimensionality of items measuring quantitative overload. Maximum likelihood was used as the extraction method because the items of quantitative overload were normally distributed. The initial eigen values showed that the first factor explained the first factor explained about 51.46% of the variance and a second factor explained an

additional variance of 18%. One and two factor solutions were examined and one-factor solution was retained as it enjoyed support from the pertinent literature. Moreover, Factor 2 had only one significant loading. Scree plot also levelled off after first factor.

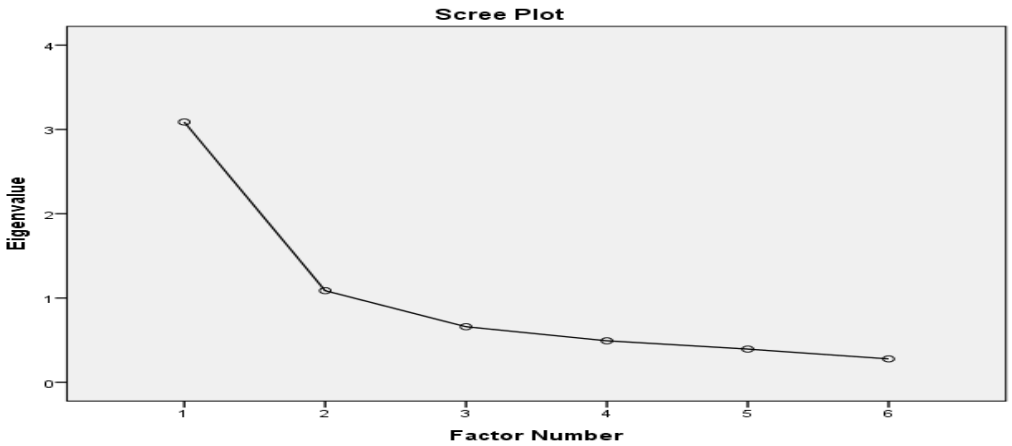

Figure 9. Scree plot for factor analysis of Quantitative Overload Scale

Table 13

Factor Loadings Through Maximum Likelihood for Quantitative Overload Scale (N = 100)

	Factor Loadings
Item No.	F_1
QWL1	**.75**
QWL2	**.70**
QWL3	**.68**
QWL4	**.79**
QWL5	-.08
QWL6	**.69**

Note. Factor loadings > .3 are in bold face.

Factor loading for Quantitative Overload Scale in Table demonstrated its unidimensional structure. All items had high loadings on a single factor except item 5, which indicated that quantitative overload is a unidimensional construct.

Table 14

Item Total Correlation of Decision Authority Subscale of Job Content Questionnaire (N = 100)

Item No.	*r*
1	.82***
2	.93***
3	.88***

***$p < .001$

Table 14 demarcates item total correlation for Decision Authority Subscale of Job Content Questionnaire. The three items were significantly correlated with the total score. This may suggests their significant contribution towards the measurement of decision authority.

Factor Analysis of Social Support Scale. The present study has operationalized social support from organization in terms of supervisor support and coworker support. Each component of social support was measured with four items. Each of the eight items of social support scale had a correlation of .30 or greater with at least one other item. A high value of the Kaiser-Meyer-Olkin measure of sampling adequacy (.81) along with the significant Bartlett's test of sphericity (χ^2 (28) = 467.61, p = .000) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The measures of sampling adequacy (MSA) along the diagonal of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item shared some common variance with other items. Overall, these indicators suggested that factor analysis of social support including all eight items is statistically appropriate procedure. Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of social support. The initial eigen values showed that the first factor explained 54.80% of the variance and the second factor accounted for 14.31% of the variance. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used.

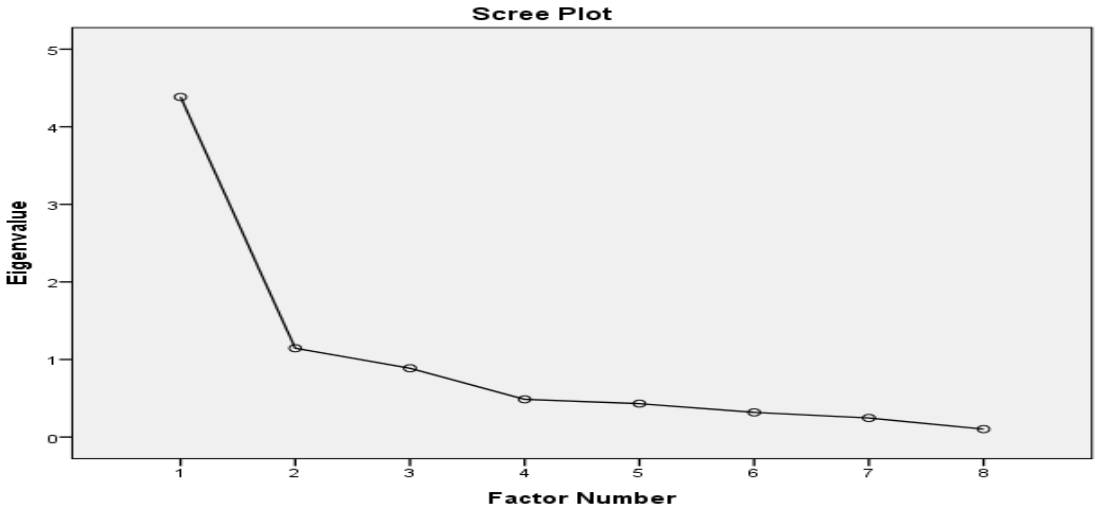

Figure 10. Scree plot for factor analysis of social support

Table 15

Factor Loadings Through Principal Axis Factoring with Promax Rotation for Social Support (N = 100)

	Standardized Factor Loadings	
Item No.	F_1	F_2
CO1	.06	**.65**
CO2	.22	.14
CO3	.02	**.83**
CO4	-.004	**.85**
SU1	**.77**	-.02
SU2	**.90**	-.01
SU3	**.90**	.05
SU4	**.78**	.02

Note. Factor loadings > .3 are in bold face.

Factor loading for social support demonstrated that except item no. 2 of coworker support, all items had high loadings on their respective factors. This indicated that social support was in consonance with its operationalization in the

present study as comprising of two independent yet related subscales of coworker support and supervisor support.

Factor Analysis of Utrecht Work Engagement Scale (UWES). The present study has operationalized work engagement through 9-item Utrecht Work Engagement Scale (UWES). The factorability of the nine UWES items was confirmed as the correlation matrix of the nine items signified that all items had a correlation of at least .3 with at least one other item. Moreover, the significant Bartlett's test of sphericity (χ^2 (102) = 1067.10, p = .000) along with a high value of Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The diagonals of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item shared some common variance with other items. These overall indicators suggested that all nine items should be included in factor analysis.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of UWES. The initial eigen values showed that the first factor explained 49.67% of the variance and the second factor accounted for 14.68% of the variance. Since the extracted factors were correlated with each other, promax rotation of the factor-loading matrix was used. Two, three, and four factor solutions were examined and the three-factor solution was chosen because it explained a sensible portion of the variance (74.87%) of the variance; it was in agreement with pertinent theory of work engagement; it was parsimonious; curve of scree plot levelled off after three factors; and besides being difficult to interpret, fourth factor had inadequate number of item loadings.

Figure 11. Scree plot for factor analysis of Utrecht Work Engagement Scale

Table 16

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Utrecht Work Engagement Scale (N = 100)

	Standardized Factor Loadings		
Item No.	1	2	3
V1	-.22	**.66**	.16
V2	**.61**	**.30**	-.20
D3	.27	**.67**	-.07
D4	**.63**	**.33**	-.09
V5	**.72**	.10	.08
A6	**1.09**	**-.37**	.06
D7	**.34**	**.33**	.19
A8	.25	.11	**.63**
A9	-.12	.08	**.64**

Note. Factor loadings > .3 are in bold face.

As evident in Table 16, the factorial structure of UWES was not in concordance with the structure proposed by Schaufeli and Bakker (2003). Items of

vigor and dedication components had cross loadings on Factor 1 and 2. Item 2 and 5 of vigor subscale loaded on Factor 1 whereas its first item loaded on Factor 2. Similarly, item 4 and 7 of dedication loaded on Factor 1 whereas item 3 loaded on Factor 2. Item 7 of dedication had almost equivalent loadings on both Factor 1 and 2. Two items of absorption loaded on Factor 3 whereas one item loaded on Factor 1. Overall, two items of each factor converged on their corresponding factor whereas one item of each factor loaded on different factor.

Table 17

Correlations of Subscales of Utrecht Work Engagement Scale (N =100)

Subscales	Vigor	Dedication	Absorption	Work Engagement
Vigor		.77***	.43***	.89***
Dedication			.45***	.89***
Absorption				.73***
Work Engagement				

***$p < .001$

The correlation matrix presented in Table 17 illustrates the relationships among various subscales of Utrecht Work Engagement Scale. The results demonstrate that the three subscales are significantly correlated with one another as well as with the total score on work engagement. Thus, it has been supported that various subscales of Utrecht Work Engagement Scale are internally consistent and significantly participate in the measurement of their focal construct.

Factor Analysis of Job Related Affective Wellbeing Scale (JAWS). Job Related Affective Wellbeing Scale (JAWS) comprised of 20 items and assessed employees' affective reactions to their jobs. Items measuring negative emotions were reverse scored. Exploratory factor analysis of JAWS was undertaken in order to examine its dimensional structure. The factorability of the 20 JAWS items was firstly confirmed as an inspection of correlation matrix of the 20 items indicated that all items had a correlation of at least .3 with at least one other item. Secondly, the significant

Bartlett's test of sphericity (χ^2 (190) = 768.63, p = .000) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. Thirdly, the Kaiser-Meyer-Olkin measure of sampling adequacy of .85 was above the recommended value of .6, which also provided support for factor analysis. Fourthly, except for [b]12th item, the diagonals of the anti-image correlation matrix were all above .5, which suggested the inclusion of each item in the factor analysis. Finally, the communalities were all above .3 (except for item no. 12 with a communality of .25), which further supported the idea that each item shared some common variance with other items. These results justified the decision of factor analysis of all item of JAWS.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of JAWS. The initial eigen values showed that the first factor explained 33.47% of the variance; the second factor accounted for 10.15% of the variance; the third factor contributed 7.12% of the variance. Each of fourth and fifth factors explained 5% variance. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Two, three, four, and five factor solutions were examined and the two-factor solution explaining 43.62% of the variance was selected because of its parsimony, levelling off the scree plot after two factors, and theoretical support from the pertinent literature.

[b] The measure of sampling adequacy (MSA) for 12th item was .333.

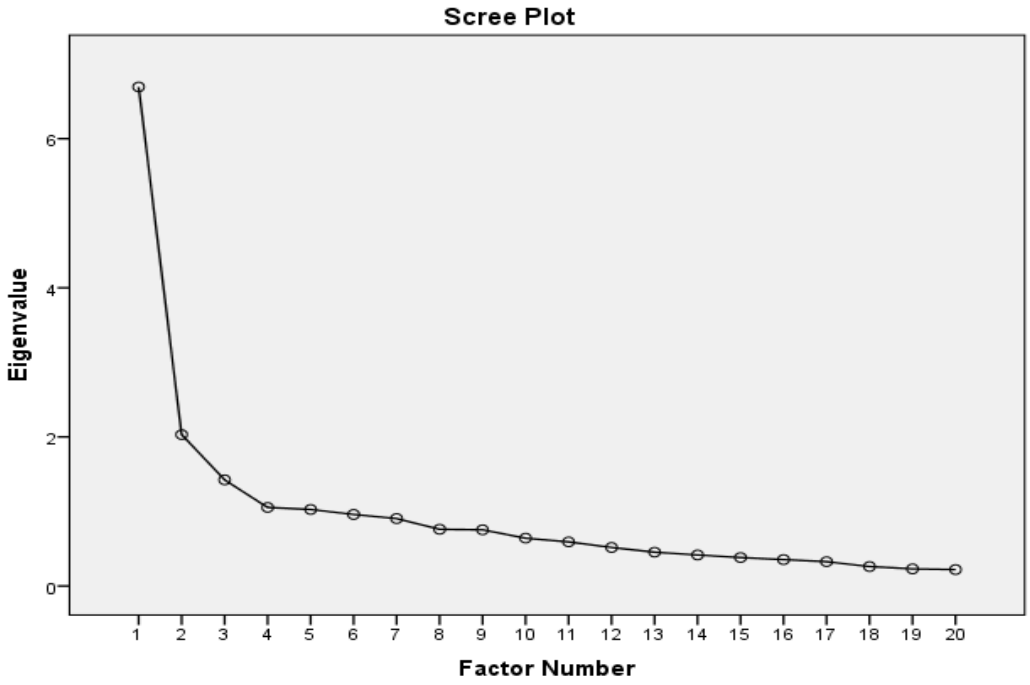

Figure 12. Scree plot for factor analysis of Job Related Affective Wellbeing Scale

Table 18

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Job Related Affective Wellbeing Scale (N = 100)

	Standardized Factor Loadings	
Item No.	F_1	F_2
PE1	**.77**	.20
NE2	**.45**	.25
NE3	**.50**	.14
NE4	**.44**	.14
PE5	**.35**	-.14
PE6	**.43**	-.26
NE7	**-.47**	**.39**
NE8	-.29	**.47**

Continued…

	Standardized Factor Loadings	
Item No.	F_1	F_2
NE9	-.30	.26
PE10	**.76**	-.06
PE11	**.71**	.05
PE12	.01	.07
PE13	**.60**	.05
NE14	-.02	**.71**
NE15	.12	**.73**
NE16	**.44**	**.43**
NE17	**-.43**	.19
PE18	**.74**	.14
PE19	**.72**	-.03
PE20	**.82**	.18

Note. Factor loadings > .3 are in bold face.

Factor loading for JAWS in Table 18 indicated that except item nos. 8, 14, and 15 of negative affect subscale, all other items had significant loadings on Factor 1. Item 8 14, and 15 had significant loading on Factor 2 whereas item 12 did not load on any of the two factors. This might suggest that all items (except item nos. 8, 14, and 15) were measuring a unidimensional construct of job related affective wellbeing.

Factor Analysis of Organizational Citizenship Behavior Scale. Organizational citizenship Behavior Scale comprised of 14 items where seven items were supposed to measure citizenship behavior targeted at organizations (OCBO) and seven items measured citizenship behavior targeted at individuals (OCBI). Exploratory factor analysis of Organizational citizenship Behavior Scale was undertaken in order to examine its dimensional structure.

The factorability of the scale was initially confirmed as an inspection of correlation matrix of the 20 items indicated that all items had a correlation of at least .3 with at least one other item. Secondly, the significant Bartlett's test of sphericity (χ^2

(91) = 373.98, p = .000) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. Thirdly, the Kaiser-Meyer-Olkin measure of sampling adequacy of .65 was just above the recommended value of .6, which also provided support for factor analysis. Fourthly, the diagonals of the anti-image correlation matrix were all above .5, which suggested the inclusion of each item in the factor analysis, however, the communalities of item nos. 7, 8, and 9 were below .3. This made the inclusion of these items in factor analysis somewhat doubtful.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of Organizational citizenship Behavior Scale. The initial eigen values showed that the first factor explained 23.22% of the variance; the second factor accounted for 15.30% of the variance; the third factor contributed 12.62% of the variance; the fourth factor explained about 9% variance; and finally the fifth factor added a unique variance of 7.60%. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used.

Two, three, four, and five factor solutions were examined. The four-factor solution explaining 60.02% of the variance was preferred because of the 'leveling off' of eigen values on the scree plot after four factors, and the insufficient number of primary loadings on subsequent factors.

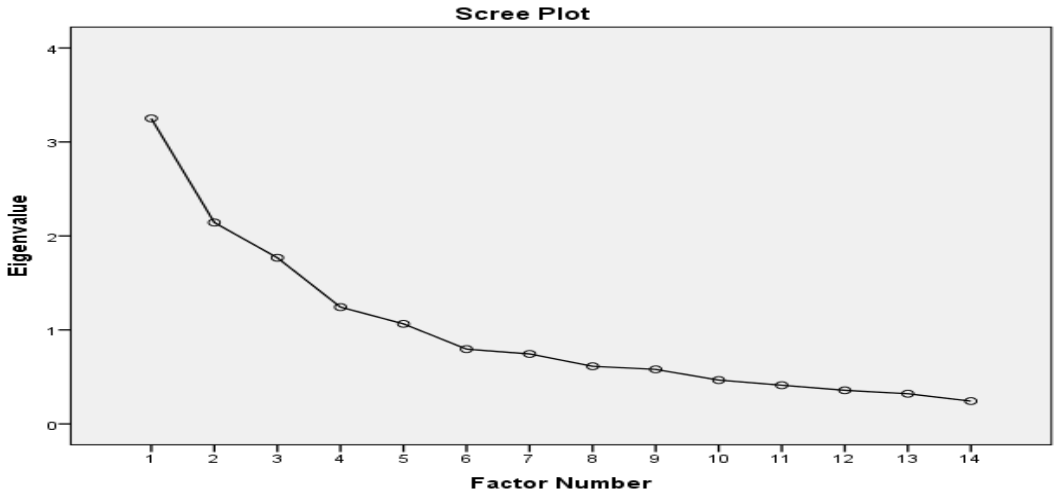

Figure 13. Scree plot for factor analysis of Organizational Citizenship Behavior Scale

Table 19

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Organizational Citizenship Behavior Scale (N = 100)

Item No.	Standardized Factor Loadings			
	F_1	F_2	F_3	F_4
OCBO1	-.11	**.74**	-.002	.08
OCBO2	.13	**.69**	-.11	-.002
OCBO3	-.12	**.45**	**.41**	-.11
OCBO4	.04	**.36**	**.59**	-.12
OCBO5	.05	-.17	**.79**	.11
OCBO6	.17	.20	.17	**.46**
OCBO7	**-.30**	-.04	-.002	**.63**
OCBI8	-.08	.11	-.22	**.51**
OCBI9	.21	.24	-.09	.11
OCBI10	.11	.23	**-.56**	.20
OCBI11	**.60**	-.05	.22	.14
OCBI12	**.40**	-.08	.04	**.47**
OCBI13	**.82**	-.08	-.13	-.23
OCBI14	**.69**	.11	-.03	-.28

Note. Factor loadings > .3 are in bold face.

Factor loading for Organizational Citizenship Behavior Scale indicated that the Factor 1 comprised of last four items of OCB targeted at individual scale (OCBI), Factor 2 comprised of first three items of OCB targeted at organization (OCBO); Factor 3 included item nos. 4, 5, and 10; and Factor 4 was constituted by item nos. 6, 7, 8, and 12. This is in sharp contrast with the proposed typology of organizational citizenship behavior scale (William & Anderson, 1991).

A scrutiny of items revealed that item nos. 3, 4, and 5 were negative items. These items might have been loaded along with negative loading of item no. 10 because of response set of respondents who were somehow failed to differentiate

these items from the positively phrased items. When these were removed from the analysis and a two factor solution was undertaken, all items of OCBO loaded on their respective factor whereas except for items 8, 9, and 10, all other items had significant loadings on their respective factor of OCBI. Item 9 had no loading on either of the factor whereas items 8 (β = .45) and 10 (β = .30) had loadings on OCBO factor. It was also worth mentioning that loading of item 10 was just on the cutoff point of .30. Given that the communalities of these three items were less than .30, their inclusion of these three items in factor analysis was also not well justified.

Table 20

Correlations of Subscales of Organizational Citizenship Behavior Scale (N = 100)

Subscales	OCBO	OCBI	OCB
OCBO		.22*	.74***
OCBI			.82***
OCB			

*$p < .05$, ***$p < .001$

Organizational Citizenship Behavior Scale had two subscales including Organizational Citizenship Behaviors Targeted at Organization (OCBO) and Organizational Citizenship Behaviors Targeted at Individuals (OCBI). The correlation between these two subscales came out to be .22 ($p < .05$) which suggests that the two subscales are significantly correlated with each other. Both subscales also significantly correlated with total score on Organizational Citizenship Behavior Scale.

Factor Analysis of Organizational Deviance Scale. Organizational Deviance Scale comprised of 19 items where first 12 items assessed organizational deviance targeted at organizations and last seven items tapped organizational deviance targeted at individuals. Factorability of these 19 items was confirmed through various established standards. Each of the 19 items of Organizational Deviance Scale had a correlation of .30 or greater with at least one other item. The significant Bartlett's test of sphericity (χ^2 (171) = 1335.23, p = .000) along with a high value of the Kaiser-Meyer-Olkin measure of sampling adequacy (.86) indicated that the correlation matrix

was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The measures of sampling adequacy (MSA) along the diagonal of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. The communalities were all above .3, which further supported the idea that each item shared some common variance with other items. Overall, these indicators suggested that factor analysis of Organizational Deviance Scale including all items was statistically appropriate procedure. Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of Organizational Deviance Scale. The initial eigen values showed that the first factor explained 47.15% of the variance; the second factor accounted for 8.79% of the variance; the third factor added a unique variance of 6.86%, fourth factor contributed 6% to the explained variance; and fifth factor explained an additional variance of 5.33%. Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Two, four, five, and six factor solutions were examined and the two-factor solution was preferred. This two-dimensional factorial structure explained about 56% of the variance and it closely resembled Bennett and Robinson's (2000) conceptualization of organizational deviance. Furthermore, the eigen values in the scree plot were levelled off after two factors and the subsequent factors had insufficient number of item loadings. The additional factors were also quite difficult to interpret.

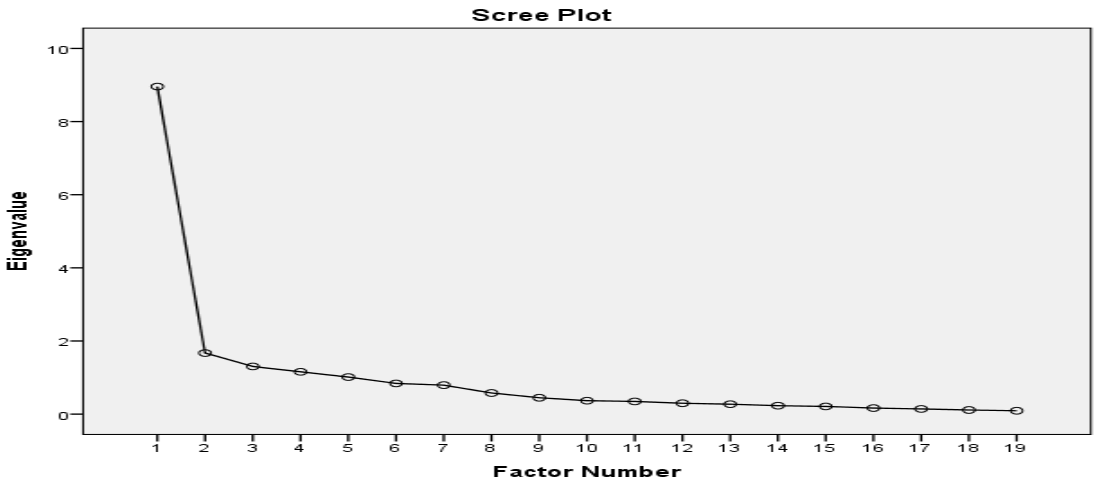

Figure 14. Scree plot for factor analysis of Organizational Deviance Scale

Table 21

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Organizational Deviance Scale (N = 100)

	Standardized Factor Loadings	
Item No.	F_1	F_2
CWBO1	-.04	**.62**
CWBO2	**-.35**	**.94**
CWBO3	**.37**	**.33**
CWBO4	-.16	**.71**
CWBO5	.07	**.51**
CWBO6	**.36**	**.45**
CWBO7	.12	**.43**
CWBO8	**.31**	**.39**
CWBO9	.29	**.54**
CWBO10	.22	**.60**
CWBO11	**.44**	**.36**
CWBO12	.23	**.53**
CWBI13	**.90**	-.22

Continued…

	Standardized Factor Loadings	
Item No.	F_1	F_2
CWBI14	**.93**	-.16
CWBI15	**.85**	-.06
CWBI16	**.73**	.16
CWBI17	**.77**	-.12
CWBI18	**.44**	.22
CWBI19	**.64**	.25

Note. Factor loadings > .3 are in bold face.

Factor loading for Organizational Deviance Scale demonstrated that all items of OCBI subscale had high loadings on Factor 1 and none of these items had any cross loading. Thus, Factor 1 was identified as counterproductive work behaviors targeted at individuals. All items of counterproductive work behaviors targeted at organization were loaded on Factor 2 except for items 2, 3, 6, 8, and 11, which demonstrated cross loadings on Factor 1. Among these items, loadings of item 3 and 11 were higher on Factor 1 as compared to Factor 2. Overall, it can be concluded that Organizational Deviance Scale had demonstrated a good fit with its factorial structure proposed by Bennett and Robinson (2000) with only two items loading onto a factor they did not belong to.

Table 22

Correlations of Subscales of Workplace Deviance Scale (N = 100)

Subscales	CWBO	CWBI	CWB
CWBO		.71***	.95***
CWBI			.90***
CWB			

***$p < .001$

Workplace Deviance Scale had two subscales including counterproductive work behaviors targeted at organization (CWBO) and counterproductive work

behaviors targeted at individuals (CWBI). The correlation between these two subscales came out to be .76 ($p < .001$) which suggests that the two subscales are positively and significantly correlated with each other.

Factor Analysis of Maslach Burnout Inventory-ES (MBI-ES). The present research has operationalized burnout through Maslach Burnout Inventory-Educator Survey (MBI-ES). The inventory comprised of three subscales namely emotional exhaustion (EE, 9 items), depersonalization (DEP, 5 items), and reduced personal accomplishment (RPA, 8 items). The factorability of the 22 MBI-ES items was confirmed as the correlation matrix of the 22 items signified that all items had a correlation of at least .3 with at least one other item. Moreover, the significant Bartlett's test of sphericity (χ^2 (231) = 759.64, p = .000) along with a high value of Kaiser-Meyer-Olkin measure of sampling adequacy (.76) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The diagonals of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, which further supported the idea that each item shared some common variance with other items. These overall indicators suggested that all 22 items should be included in factor analysis.

Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of MBI-ES. The initial eigen values showed that the first factor explained 22.41% of the variance; the second factor accounted for 13.75% of the variance; the third factor contributed 10.67% to the explained variance; the fourth factor accounted for about 6% of variance; and fifth and sixth factors explained 5.25% and 4.75% of the variance respectively. Since the extracted factors were correlated with each other, promax rotation of the factor-loading matrix was used. Two, three, four, and six factor solutions were examined and the three-factor solution was chosen because it explained a sensible portion of the variance (46.84%) of the variance; it was in agreement with pertinent theory of work engagement; it was parsimonious; curve of scree plot levelled off after three factors;

and besides being difficult to interpret, fourth factor had inadequate number of item loadings.

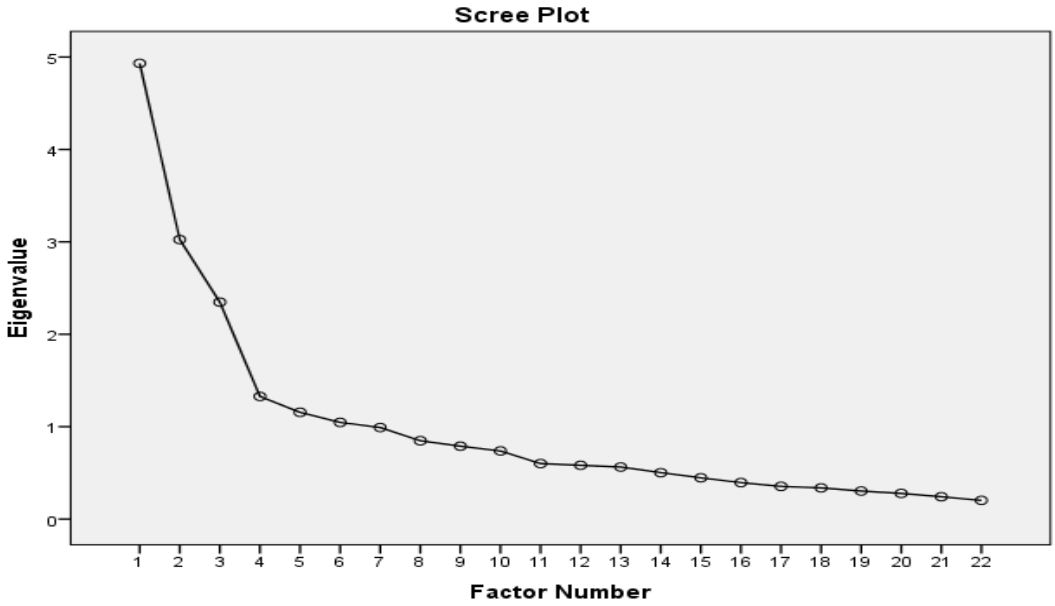

Figure 15. Scree plot for factor analysis of Maslach Burnout Inventory-ES

Table 23

Factor Loadings Through Principle Axis Factoring with Promax Rotation for Maslach Burnout Inventory-Educator Survey (N = 100)

	Standardized Factor Loadings		
Item No.	1	2	3
EE1	-.23	.02	**.83**
EE2	.03	-.21	**.65**
EE3	.06	-.003	**.70**
PA4	.05	**.68**	-.15
DEP5	**.66**	-.04	-.09
EE6	**.39**	.09	**.32**
PA7	.13	**.66**	-.008
EE8	**.31**	.24	**.37**
PA9	-.08	**.62**	.01

Continued…

	Standardized Factor Loadings		
Item No.	1	2	3
DEP10	**.54**	-.21	.07
DEP11	**.64**	-.05	.09
PA12	-.07	**.38**	**.31**
EE13	**.53**	.17	.14
EE14	**.45**	**-.42**	.06
DEP15	**.61**	-.09	-.08
EE16	**.63**	.03	.05
PA17	**.31**	**.56**	-.08
PA18	-.13	**.56**	-.16
PA19	-.11	**.40**	.20
EE20	**.65**	-.07	-.15
PA21	-.15	**.45**	.04
DEP22	**.66**	.09	-.15

Note. Factor loadings > .3 are in bold face.

As evident in Table 23, the factorial structure of MBI-ES was not in exact concordance with the structure proposed by Maslach, Jackson, and Leiter (1996). All items of reduced personal accomplishment had high loadings on Factor 2, which therefore constituted a discriminant factor of reduced personal accomplishment. All items of depersonalization exclusively loaded on Factor 1, however several items of emotional exhaustion had also high loading on Factor 1. In fact, items 1, 2, 3, and 8 of emotional exhaustion had high loadings on Factor 3 whereas the rest of five items were loaded on Factor 1. Overall, these findings suggested that although reduced personal accomplishment was an independent factor of burnout, items of emotional exhaustion, however, were enmeshed with those of depersonalization.

Table 24

Correlations of Subscales of Maslach Burnout Inventory-ES (N = 100)

Sr. #	Subscales	1	2	3	4
1	Emotional Exhaustion		.51***	.17	.82***
2	Depersonalization			.11	.73***
3	Personal Accomplishment				.59***
4	Burnout				

***$p < .001$

The correlation matrix drawn in Table 24 illustrates the relationships among various subscales of Maslach Burnout Inventory. The matrix signifies Emotional Exhaustion Subscale as significantly related with Depersonalization Subscale as well as the total score of burnout on the inventory. Depersonalization was also found to be significantly correlated the total score of burnout on the inventory. Personal Accomplishment Subscale was not significantly related to either of the subscales; however, it was significantly correlated with total score of burnout on the inventory.

Factor Analysis of In-role Performance Scale. In-role Performance Scale comprised of seven items with last two items negatively phrased. Each of the seven items of In-role Performance Scale had a correlation of .30 or greater with at least one other item. A high value of the Kaiser-Meyer-Olkin measure of sampling adequacy (.82) along with the significant Bartlett's test of sphericity (χ^2 (21) = 303.18, p = .000) indicated that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. The measures of sampling adequacy (MSA) along the diagonal of the anti-image correlation matrix were all above .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3 (except item no. 5), which further supported the idea that each item shared some common variance with other items. Overall, these indicators suggested that factor analysis of In-role Performance Scale was statistically appropriate procedure. Principle axis factoring was used as the extraction method because the key purpose was to identify the factorial structure of In-role Performance Scale. The initial eigen values showed that

the first factor explained 52.43% of the variance and the second factor accounted for 15.11% of the variance.

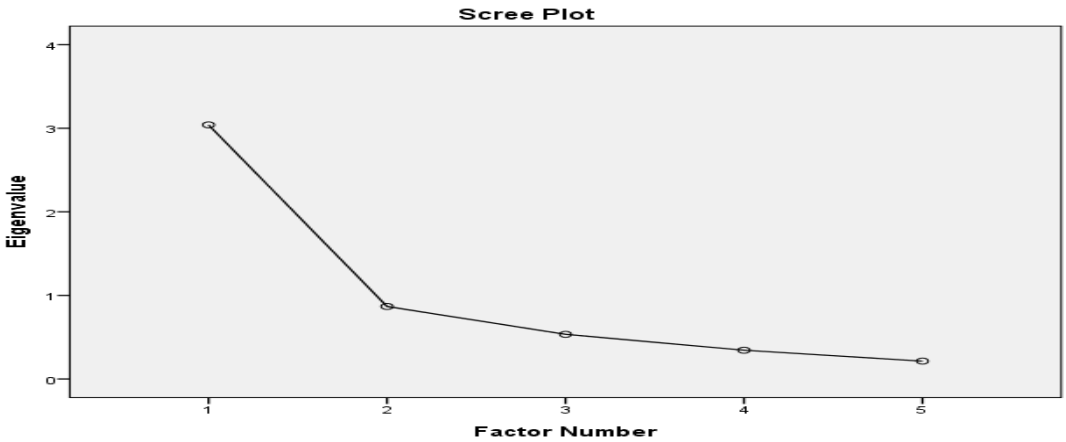

Figure 16. Scree plot for factor analysis of In-role Performance Scale

Table 25

Factor Loadings Through Principle Axis Factoring with Promax Rotation for In-role Performance Scale (N = 100)

	Standardized Factor Loadings	
Item No.	F_1	F_2
Per1	**.71**	.14
Per2	**.90**	.001
Per3	**.86**	-.007
Per4	**.67**	-.04
Per5	**.38**	-.08
Per6	-.16	**.99**
Per7	.28	**.52**

Note. Factor loadings > .3 are in bold face.

Since the extracted factors were correlated with one another, promax rotation of the factor-loading matrix was used. Factor loading for In-role Performance Scale demonstrated that except item no. 6 and 7, all items had high loadings on Factor 1. Both item 6 and 7 had high loadings on Factor 2, which might point to respondents'

response set because of which they might not differentiate these negative items from the positive ones.

Relationships Among the Variable of the Present Study. Zero-order bivariate correlations among the major variables of the present study were computed in order to discern the pattern of relationships among them. Table 26 portrays the correlation matrix computed among all the variables of the present study and provided a preliminary insight into the proposed relationships among variables of the present study. The matrix suggests that all variables are correlated with one another in a theoretically meaningful way as all correlations were in the expected directions. The correlation coefficient ranged from .01 to .70. Psychological capital, work engagement, promotive psychological ownership, organizational citizenship behavior, in-role performance, job related affective wellbeing were positively related with one another and negatively related to counterproductive work behaviors, negative affectivity, and burnout.

Table 26

Correlations Among the Variables of the Present Study (N = 100)

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	PsyCap	-	.48***	-.55***	.44**	-.09	.63***	-.03	.21*	.49***	.39***	.63***	.53***	.62***	-.61***	-.50***
2	PA	-	-	-.38***	.31**	.04	.43***	.15	-.08	.33***	.41***	.50***	.19	.31**	-.24**	-.30**
3	NA	-	-	-	-.35**	.14	-.32***	.22*	-.07	-.30**	-.22*	-.50***	-.21*	-.44***	.52***	.42***
4	AL	-	-	-	-	-.18	.34**	-.02	.12	.73***	.32***	.42***	.27**	.21*	-.23*	-.19
5	PreOwn	-	-	-	-	-	-.07	-.12	.25*	-.23*	-.10	-.15	-.02	.02	.21*	.03
6	ProOwn	-	-	-	-	-	-	.13	.33***	.47***	.39***	.42***	.53***	.43***	-.40***	-.46**
7	QROL	-	-	-	-	-	-	-	-.07	.05	.05	-.01	.09	-.06	.06	.26**
8	JA	-	-	-	-	-	-	-	-	.27**	.18	.22*	.30**	.15	-.02	-.32***
9	SS	-	-	-	-	-	-	-	-	-	.59***	.55***	.38***	.29**	-.29**	-.34***
10	WE	-	-	-	-	-	-	-	-	-	-	.56***	.25*	.30**	-.31**	-.43***
11	JAWS	-	-	-	-	-	-	-	-	-	-	-	.35***	.46***	-.54***	-.48***
12	OCB	-	-	-	-	-	-	-	-	-	-	-	-	.56***	-.46***	-.43**
13	Perf	-	-	-	-	-	-	-	-	-	-	-	-	-	-.70***	-.52***
14	CWB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.59***
15	BO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note. PsyCap = psychological capital. PA = positive affectivity. NA = negative affectivity. AL = authentic leadership. PreOwn = preventative ownership. ProOwn = promotive ownership. QROL = quantitative role overload. JA = job autonomy. CoSupport = coworker support. SuSupp = supervisor support. WE = work engagement. JAWS = job related affective wellbeing. OCB = organizational citizenship behavior. Perf = self-reported in-role performance. CWB = counterproductive work behaviors. BO = burnout.

*$p < .05$, **$p < .01$, ***$p < .001$

Discussion of Pilot Study

Pilot study was undertaken with an objective of ascertaining the structural dimensions of various constructs of present study in the context of Pakistani university teachers. It further aimed at examining the psychometric properties of various instruments that are to be used for the measurement of various constructs involved in the current investigation. Such a psychometric analysis helped in discerning the suitability of various scales for the indigenous population, which have been actually developed in western societies. Moreover, except Maslach Burnout Inventory-Educator Survey (MBI-ES), all the scales are developed in typical organizational context. Thus, adaptation of instruments to the endemic culture of Pakistan and tailoring the scales to the job context of university teachers of Pakistan was another important purpose of pilot study. Pilot study was also proven very instrumental in bringing out the most salient job resources and job demands in teaching staff of Pakistani universities.

In order to achieve the aforementioned objectives, pilot study was conducted in multiple steps. It comprises of nine distinct phases starting from focus group discussion for structural equivalence of psychological capital, psychological ownership, work engagement, and authentic leadership in aboriginal settings. This step was of paramount importance as these four construct have hardly been studied in Pakistani population and to the researcher's knowledge, this is the first empirical and large scale study that intends to examine these novel constructs in educational settings. The series of focus group discussions revealed that the theoretical background of these concepts and the structural dimensions of their operationalization are quite comprehensive to incorporate all salient perceptions of these constructs among Pakistani university teachers. It turned out that the conceptualization of psychological capital as proposed by Luthans, Youssef, and Avolio (2007); authentic leadership as explained by Walumba, Avolio, Gardner, Wernsing, and Peterson (2008); psychological ownership as conceived by Avey, Avolio, Crossley, and Luthans (2009); and work engagement as worked out by Schaufeli and Bakker (2003) needs no modification. Hence, the first step of pilot study concluded that no additional

dimension is needed in any of these four constructs and the existing theory and measurement are quite applicable in our indigenous settings of university teachers.

The second step of pilot study was meant to discover most salient job resources and job demands among university teachers of Pakistan. Since job demands and resources model (J-DR) is being incorporated in the present research, this step was of utmost significance in discerning the most pertinent job resources and demands as perceived by Pakistani university faculty. A series of focus group discussions with university teachers of different universities revealed a peculiar pattern of job demands and resource among our university teachers. These focus groups identified 11 job resources and 10 job demands. Job autonomy, coworker support, and supervisor support turned out to be the most frequently cited types of job resources whereas quantitative role overload, role ambiguity, and role conflict were identified as the most frequently cited types of job demands. The findings are consistent with recent study of Boyd, Bakker, Pignata, Winefield, Gillespie, and Stough (2011) who found job autonomy and quantitative overload as most salient job resource and job demand respectively among Australian university teachers. In the light of these outcomes, the present study has incorporated job autonomy and social support (comprising of coworker and supervisor support) as job resources and quantitative role overload as job demand to be further studied in relation to other variables of the present research.

The third step of study I was a tryout of the selected instruments and it aimed at seeking feedback from a small sample of university teachers as they go through various scales of the present study. The respondents in this step provided some invaluable information pertaining to readability, comprehension, and diction of the scales. They also commented on the relevance or irrelevance of each item to their job context. Some items were identified as ambiguous in meanings and interpretations. Similarly, some phrases and proverbs were found which did not have equivalent meanings for all the respondents. The participants also highlighted some difficult words and phrases for which they had to consult dictionaries. Thus, this step

necessitated fifth step of pilot study, which sought expert opinion on these instruments.

Expert opinion was sought in order to have some informed and scholarly estimates of the face and content validity of scales that are used for operationalization of various constructs. All scales were found to be content valid, however, the experts (all of whom were PhDs in psychology) emphasized the need for adaptation of instruments to job context of university teachers as most of the scales comprised of items tailored to the typical organizational context.

As revealed through the expert opinion on the instruments, adaptations of the scales were undertaken in sixth step of pilot study. A committee approach was adopted for the task, which modified, changed, and rephrased certain items of various scales as to make them more comprehendible and relevant to the job context of university teaching. The difficult English words were changed with their easy and near most synonymous words; proverbs and difficult English words were translated into simple English. The organizational context of items was also modified to fit them in university teaching milieu. Hence, this step provided the researcher with ready to use scales especially tailored to the characteristics of university teaching job, which led to the eighth step of sampling and data collection for pilot study.

The adapted instruments were administered on a convenient sample of 100 full time teaching employees of various universities of capital city and the Punjab province. This step was undertaken in order to collect the data for statistical analyses so that the psychometric properties of the sales might have empirically been established. The analyses of data not only revealed reliability of measurement devices but also provided experiential cues to the items, which might have not been contributing towards the measurement of their focal construct. The reliability of scales and their subscales have been estimated through the computation of Cronbach's alpha coefficients of internal consistency. Results revealed that most of the scales and their subscales have excellent alpha coefficients of .80s to .90s. The alpha coefficients of all scales and their subscale turned out to be above .60 except

for Optimism Subscale (α = .53) of PsyCap Questionnaire. On a closer inspection of the data, it was found that the aforementioned subscales involved some reverse coded items in scales, which entail predominantly positive items. PsyCap Questionnaire comprised of 24 items, 21 of which were positively phrased. Among the three negatively phrased items, two items (item nos. 21 and 23) lie in this subscale whereas the third one (item no. 13) lies in Resilience Subscale. The relatively low (yet acceptable) alpha for Resilience Subscale as compared to Hope and Self-efficacy Subscales also points in the same direction.

In order to scrutinize the data further, all scales were subjected to exploratory factor analyses. Since majority of measures used in the present study espouse rich theoretical background, factor analysis was helpful in discerning the factorial structure of various measurement tools. Moreover, factor analysis yielded important indices for the convergent and discriminant validity of various constructs and their constituent factors. Findings of exploratory factor analyses for majority of scales revealed that their factorial structure was consistent with the pertinent theory. Psychological Ownership Questionnaire, Positive and Negative Affect Schedule, Job Related Affective Wellbeing Scale, Organizational Deviance Scale, Social Support Scale, In-role Performance Scale, and Quantitative Overload Scale had yielded consistent structure with their relevant theoretical grounds.

Exploratory factor analysis of PsyCap Questionnaire revealed that self-efficacy and hope are two independent yet related factors of psychological capital as majority of items measuring these dimension had loaded on their corresponding factors. This provided evidence that these two factors were not only discriminant enough to get their items loaded on their respective factors but also converge well to operationalize psychological capital. Items of resilience and optimism, however, did not reveal such categorical factorial structure as most of the items of the two subscales were loaded on a single factor. An inspection of various items of these two subscales revealed that it was relatively difficult to discern items measuring these two factors. For instance, item no. 14 and 18 of resilience and items no. 24 of optimism subscale loaded on hope factor. These three items entail some critical

features of hope as items 14 and 18 were suggestive of agency or goal directed energy for handling multiple tasks at a single point of time whereas item 24 explicitly stated approaching "this job with a ray of hope". According to Snyder, Irving, and Anderson (1991), hope is a positive motivational state that is derived from an interaction between sense of successful agency and or goal directed energy and pathways or planning to meet goals. Thus loading of these three items on hope subscale was an expected corollary. Another important finding signified that all the negatively phrased items of PsyCap Questionnaire (item 13 of resilience subscale and items 20 and 23 of optimism subscale) loaded onto a separate factor signaling that these items were not measuring the same construct they were supposed to measure. This might be attributed to the response set on the part of some respondents who might not have differentiated these items from positively phrased items. The aforementioned problematic items were retained for the main study; however, their negative phrasing was made bold and underlined in the questionnaire. It was expected that this might facilitate the respondents in differentiating between positively and negatively phrased items.

A similar pattern of findings was emerged from the factor analysis of Authentic Leadership Questionnaire where self-awareness and relational transparency demonstrated discriminant as well as convergent validity with the superordinate construct of authentic leadership. However, indicators of internalized perspective and balanced processing were not very discriminant from each other as well as other factors. Item nos. 9 and 10 of internalized perspective might have loaded on relational transparency because these items as well as item nos. 6, 7, and 8 of relational transparency were based on concordance between one's deeply held beliefs or core values and one's overt actions or decisions. Finally, items 11 to 13 of internalized perspective and all items of balanced processing loaded on a single factor perhaps because all of these items pertained to leader's capability of integrating follower's inputs into his/her plan of action.

Exploratory factor analysis of Utrecht Work Engagement Scale also yielded mixed results, as the three factors did not demonstrate high discrimination amongst

themselves. Item 1 of vigor subscale and 3 of dedication subscale focused on zeal about one's job, which might explain their loading on a single factor. The rest of items of both vigor and dedication subscales loaded on a single factor, whereas item nos. 8 and 9 of absorption loaded on a separate scale. These findings of the present study suggested that amongst Pakistani university teachers, work engagement might be conceptualized as comprising of two dimensions namely vigor/dedication and absorption. Similar findings have been reported by Naudi and Rothmann (2004) who found that work engagement comprised of two factors: vigor/dedication and absorption in a sample of South African emergency medical staff. Among academic staff of higher education institutions of South Africa, Nicolene (2005) also found a 2-factor structure of work engagement comprising of dedication/vigor and absorption. Recently, Lekutle and Nel (2012) replicated the same findings about factorial structure of work engagement in a South African sample of employees of cement industry.

The findings of exploratory factor analysis of Organizational Citizenship Behavior Scale also appeared to be not promising. The initial 4-factor solution was in contrast to the proposed factorial structure of the instrument. However, a close inspection of items of this scale revealed that the negatively phrased items of this scale were problematic. These items might indicate a response set on the part of respondents who did not differentiate these reverse items from the positive ones. This line of reasoning is further augmented by the fact that after excluding item nos. 3, 4, and 5 (the negative items), a 2-factor solution yielded a clear factorial structure in accordance with William and Anderson's (1991) conception of OCB. Yun, Takeuchi, and Liu (2007) also reported similar factorial structure of this scale where item nos. 3, 4, and 5 being the reversed items emerged as independent factor. Therefore, these items were dropped from their further analyses. However, in case of the present research, all items were retained in the main study. The negative phrasing of the aforementioned items were made bold and underlined so that the respondents might respond differentially to positively and negatively phrased items.

Finally, the findings of exploratory factor analysis of Maslach Burnout Inventory-Educator Survey did not support its 3-factor structure. Results revealed that depersonalization items loaded on emotional exhaustion whereas personal accomplishment items loaded on their respective factor. Specifically, item nos. 2, 6, 13, 16, and 22 were problematic. The data of the present study thus revealed a 2-factor structure of the inventory comprising of emotional exhaustion encompassing depersonalization and personal accomplishment. This finding of the present study is not surprising given that several studies had reported cross loading of certain items of emotional exhaustion. For instance, in their large scale cross-sectional survey of nurses from eight different countries, Poghosyan, Aiken, and Sloane (2009) found that across all the countries sampled, the two items (6 and 16) related to the "stress" and "strain" involved in working with people loaded on the depersonalization subscale rather than the emotional exhaustion subscale to which they were initially assigned. Naude and Rothmann (2004) found that these two items along with item no.22 also had cross-loadings. Similarly, item nos. 13 and 16 had cross-loadings on depersonalization in Schaufeli, and van Dierendonck's (1993) study; Byrne (1991), and Yadama and Drake (1995) testified to the problematic nature of items 2, 4, 16 and 21.

In addition to the aforementioned individual items, several researchers have found that burnout could be better conceptualized as comprising of two components. Whitehead, Ryba, and O' Driscoll (2000), for instance, reported that among school teachers of New Zealand, emotional exhaustion and depersonalization component overlap with each other. Similarly, Galanakis, Moraitou, Garivaldis, and Stalikas (2009) reported that burnout consists of 2-factors, whereby emotional exhaustion encompasses the component of depersonalization. These studies provide empirical support for the findings of the present study where burnout turned out to be a 2-factor construct comprising of emotional exhaustion/depersonalization and personal accomplishment.

The dimensional structure of each instrument was further examined by computing inter subscale correlations of each scale where all subscale of a scale were

correlated with one another and the total score. Another evidence of convergent validity was gleaned when the correlations revealed that most of the subscales of each scale significantly correlated with one another and the scale total.

Personal Accomplishment Subscale of Maslach Burnout Inventory was, however, an exception as it was neither significantly related to Emotional Exhaustion nor to the Depersonalization. This has been in line with the theoretical background of Maslach Burnout Inventory where Personal Accomplishment has been conceived as independent of other two subscales and its component items do not load negatively on them. Alternatively, Personal Accomplishment cannot be assumed the opposite of Depersonalization or Emotional Exhaustion (Maslach, Jackson, & Leiter, 1996). Hence, the low correlations of Personal Accomplishment Subscale with Depersonalization and Emotional Exhaustion Subscales are quite justified and consistent with the literature.

Finally, the correlation matrix explained relationships among various variables of the present study in the expected directions. PsyCap was found to be positively related with positive affectivity, OCB, work engagement, social support, job related affective wellbeing, promotive ownership, and in-role performance. It was found to be negatively related with counterproductive work behaviors, burnout, and negative affectivity. Work engagement was positively related with psychological capital, positive affectivity, OCB, in-role performance, job related affective wellbeing. Burnout, counterproductive work behaviors, and negative affectivity were its negative correlates. Authentic leadership was positively related with psychological capital, promotive ownership, social support, OCB, and in-role performance. In the same vein, promotive psychological ownership was positively related with work engagement, OCB, social support, and in-role performance; and negatively related with counterproductive work behaviors and burnout. All these relationships are in tune with the proposed model of the present study and provide an initial support to the expected relationships among the variables.

Conclusion

Overall, the findings of the present study were quite encouraging in terms of psychometric properties of various scales and subscales. Most of the scales and their subscales were found to be quite reliable and internally consistent. Exploratory factor analyses and inter subscale correlations pointed towards the construct validity of these constructs as most of the items significantly loaded onto their corresponding factor and various subscales of a given scale were correlated with each other and the overall construct in meaningful ways. Finally, the pattern of relationships among various variables of the present study was quite in tune with the expected directions and none of the relationship was significant in opposite direction. This provided an initial insight into the hypothesized relationships among various variables and suggests an initial supports to the proposed model of the present study.

Chapter IV

MAIN STUDY

As already discussed in the second chapter, this research comprises of two studies. The previous chapter delineated study I of this research whereas the current chapter was couched in order to explicate the details of study II i.e., the main study.

Objectives of Main Study

The primary objective of the main study was to test the proposed models of positive organizational behavior among university teachers of Pakistan. More precisely, main study was undertaken in order to achieve the following specific objectives:

1. To assess the fit between the theoretical and observed factorial structure of various instruments of the present study through confirmatory factor analyses.
2. To test the proposed models of positive organizational behavior whereby hypothesized relationships among variables of the present study were examined.
3. To explore the impact of demographic variables such as gender, age, job status, job experience, and faculty on variables of the present research.

Hypotheses

Numerous hypotheses have been proposed that specified relationships among variables of the present research. These hypotheses were derived from pertinent literature. Psychological ownership and work engagement were proposed as serial mediators between psychological capital and different work behaviors such as organizational citizenship behaviors, job related affective well-being, in-role performance, counterproductive work behaviors, and burnout. Positive and negative affectivity were proposed as control variables. Job demands (quantitative role overload) and job resources (job autonomy and social support) were the proposed moderators of relationship of psychological capital, psychological ownership, and

work engagement with the aforementioned work outcomes. Authentic leadership was also proposed to have positive relationship with desirable work outcomes and an inverse association with the negative work outcomes. The complete hypotheses have been listed in second chapter (see pp. 81-86).

Sample

The conveniently drawn sample of main study comprised of N = 500 university teachers from various public sector universities of the Punjab province and the capital city of Islamabad. The inclusion criteria of the sample was an age range of 22 to 60 (M = 31.78, SD = 7.20) years, educational baseline of masters (16 years of formal education), and a minimum job experience of one year (M = 5.68, SD = 6.16). The minimum job experience of one year was necessary so that the participants of the present study have been properly socialized into their job roles and university culture; age criteria was important because most of Pakistani students accomplish their 16 years of education up to the age of 22 and officially retires from their jobs at the age of 60 years; educational baseline of 16 years of formal education was imperative because it was the minimum academic qualification for a university teaching position. The underrepresentation of senior faculty members in the sample is reflective of the corresponding population where associate and full professors are also quite rare. The detailed sample characteristics are presented in Table 27.

Table 27

Demographic Characteristics of Participants of the Main Study (N = 500)

Characteristic	*n*	%	Missing (%)
Gender	491	98.20	9 (1.8)
Men	200	40.73	
Women	291	59.27	
Age	477	95.4	23 (4.6)
Up to 30 Years 466	275	57.65	
Above 30 Years	202	42.35	
Faculty	490	98.00	10 (2)
Science	192	39.18	
Arts and Social Sciences	298	60.82	

Continued…

Characteristic	*n*	%	Missing (%)
Qualification	484	96.80	16 (3.2)
BS/Masters	138	28.52	
MPhil/MS	235	48.55	
PhD	111	22.93	
Designation	489	97.80	11 (2.2)
Research Associate	54	11.04	
Lecturer	293	59.92	
Assistant Professor	128	26.18	
Associate Professor	10	2.04	
Professor	4	0.82	
Job Status	491	98.20	9 (1.8)
Contractual	206	41.96	
Regular	285	58.04	
Job Experience	488	97.60	12 (2.4)
Up to 4 Years	271	55.53	
More Than 4 Years	217	44.47	
Universities of the Punjab Province	269	53.80	0 (0)
University of Sargodha	60	22.30	
GCU Lahore	47	17.47	
GCU Faisalabad	44	16.36	
Arid Agricultural University Rwp.	46	17.10	
FJWU Rawalpindi	42	15.61	
Islamia University Bahawalpur	30	11.15	
Universities of Islamabad	142	28.40	0 (0)
Quaid-i-Azam University	50	35.21	
International Islamic University	36	25.35	
NUST	56	39.44	
Universities of KPK	89	17.80	0 (0)
Hazara University, Hazara	42	47.19	
University of Peshawar	47	52.81	

Instruments

All the instruments used in the present study were in English language and yielded valid self-report operationalizations of their corresponding constructs on Likert type scale format. The details of these instruments have already been presented in Step 3 of second chapter (see pp.103-116).

Procedure

The chairpersons of various academic departments of different universities were contacted by the researcher on behalf of National Institute of Psychology and they were requested to grant permission for data collection in relation to the variables of the present study. They were briefed about the purpose, objectives, and rationale of this study and were assured that the collected information would be anonymously used for research purpose only. After getting the consent of the chairpersons, the faculty members who were willing to participate in the research were briefed about the purpose of the study and the booklets containing the questionnaires were handed over to them. Besides the written instructions at the beginning of each booklet, the respondents were also verbally instructed as how to respond to various items in the booklet. They were requested to read each statement in the booklet carefully and respond as accurately and honestly as possible, by checking the option that they thought was most applicable to them or their work environment. The respondents were assured that the information they had provided would only be used for research purposes and their personal identity would never be disclosed. The researcher heartily thanked them for their support and participation in this study. The filled questionnaires from the teachers were collected back by the researcher himself or his accomplices.

Results of Main Study

Results of main study have been divided into three portions. The first proportion deals with analysis of missing values and measurement models for various measurement tools. The measurement models involved a series of confirmatory factor analyses for the assessment of factorial structure of measurement devices. The second portion of this chapter comprises of structural models, which have tested the proposed

models of the present study pertaining to the hypothesized relationship among major variables of this research. The third portion presents findings of multivariate analyses of variance whereby impact of certain demographics was explored in relation to major variables of the present study.

Part I (a): Data Screening and Analysis of Missing Values

Initially a date set of 523 cases was subjected to screening for accuracy and the identification of univariate and multivariate outliers of various variables of the present study. The accuracy of data was assessed by frequency of all responses on each variable and inspecting the range of each entered variable. Errors of data entry were found in approximately 4% cells of SPSS data sheet, which were rectified according to the hard copies of filled questionnaires of these cases. After ensuring the accuracy of data file, summated scores of continuous variables were standardized and standardized scores greater than the absolute value of 3.29 were considered as univariate outliers. Box plots were also inspected for the identification of univariate outliers. These outliers were found on counterproductive work behaviors (n = 6), in-role performance (n = 4), psychological capital (n = 3), and organizational citizenship behavior (n = 4). These cases were deleted from the data set.

Multivariate outliers were assessed through the calculation of Mahalanobis D^2 where major variables of the present study were regressed on dummy coded demographic variables in multiple regression. This statistic assesses the distance from the centroid (multidimensional equivalent of a mean) for a set of scores for each of the independent variables included in the analysis. The larger the value of the Mahalanobis D^2 for a case, and the smaller its corresponding probability value, the more likely the case is to be a multivariate outlier. Mahalanobis D^2 is distributed as a chi-square statistic with degrees of freedom equal to the number of independent variables in the analysis. The probability value enables us to make a decision about the statistical test of the null hypothesis, which proposed that the vector of scores for a case is equal to the centroid of the distribution for all cases. Typically, a case is considered as multivariate outlier if its probability associated with D^2 is ≤ 0.001. The SPSS cumulative density function was used in order to calculate the area under the chi-square curve from the left end of the distribution to the point corresponding to our statistical value. The right-tail probability of obtaining a D^2 value of this size was

computed by subtracting the cumulative density function value from 1. The analysis identified six multivariate outliers, which were deleted from the data set. Thus, a complete data set of $N = 500$ was retained.

The cleaned data set was subjected to analysis of missing values in SPSS-20. There were 86 cases (17.2%) in the data set that had at least one response missing on a variable. The missing values on various variables ranged from 0.3% to 10.6%. Highest missing values were found on variable of item 3 of Workplace Deviance Scale (10.6%) followed by item no. 12 of Job Related Affective Wellbeing Scale (JAWS, 5.2%). For all other variables, missing values were less than 5%. The Little MCAR test was non-significant [χ^2 (40988) = 3357.31, $p = 1.00$], which demonstrated that the data was missing at random and there was no discernable systematic pattern in the missing data. Thus, the assumption of data missing completely at random (MCAR) was met. Separate variance t-test were computed where mean values of each variable were compared before and after the imputation of item 3 of Workplace Deviance Scale and item no.12 of JAWS which revealed non-significant differences for all the variables. The missing values were imputed through expectation maximization (EM) technique with inferences assumed based on the maximum likelihood under the normal distribution (Hill, 1997). The EM technique is much more preferable to other traditional methods of handling missing data such as case wise or list wise deletion, substitution with the mean or median, or single imputation through regression because it is an iterative process that does not directly fill the missing values, rather uses functions of them in the log-likelihood. Each iteration comprises of an E step and an M step. Given the observed values and current parameter estimates, the E (expectation) step computes the conditional expectation of the missing data. These expected values are then substituted for the missing data. Now the M (maximization) step conceives the data file as being complete (since the missing values have been substituted by the conditional expected values) and computes maximum likelihood estimates of the parameters. These new parameter estimates are again substituted back into the E step and a new M step is performed. The procedure continues iteratively through these two steps until convergence when the change of the parameter estimates from iteration to iteration becomes negligible (Little & Rubin, 1987). Means of each variable before and after imputations were compared through t-

tests, which revealed non-significant differences between mean scores of original and imputed data sets.

Part I (b): Measurement Models

The organization of this first part of results of main study is such that for each measurement tool, a comparison of various models including all the scale items and the finalized items with various factorial structures is presented. This is followed by tables of factor loadings and reliabilities. Figures of factor analyses from AMOS Graphics are presented next followed by tables of discriminant validities.

Confirmatory factor analysis of PsyCap Questionnaire. The factorial structure of PsyCap Questionnaire was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 28 presents fit indices of various competing factorial model of this scale and Table 29 depicts factorial structure of this instrument.

Table 28

Stepwise Model Fit Indices for CFA of PsyCap Questionnaire (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (24 Items, Second Order)										
	986.25	248	.86	.83	.83	.78	.077	.063	-	-
Model 2 (21 Items, First Order)										
	278.44	159	.95	.93	.97	.93	.039	.038	707.81***	89
Model 3 (21 Items, Second Order)										
	283.44	160	.95	.93	.97	.93	.039	.034	5.00*	1

*p = .05, ***p < .001

Table 28 presents the stepwise model fit indices for confirmatory factor analysis of PsyCap Questionnaire. The original measurement model of positive psychological capital (PsyCap) was estimated through a second order confirmatory factor analysis where psychological capital was the second order factor with self-efficacy, hope, resilience, and optimism as first order factors (see Model 1). Each first order factor comprised of six indicators. Thus, this model consisted of 24 items. The findings of the first model of PsyCap where 24 indicators were independent in terms of their error covariances yielded unsatisfactory results. The chi-square to *df* ratio was

3.98. This suggested that the sample data did not fit to the proposed measurement model. Other measures of fit also demonstrated an unacceptable fit (*GFI*=.86, *AGFI*=.73, *CFI*=.83, *NFI* = .78, *RMSEA*=.077, Standardized *RMR*=.063).

The model was re-specified after excluding the items, which have low standardized factor loadings ($\beta < .50$). Item 13 of resilience subscale and item nos. 20 and 23 had low factor loadings therefore, they were dropped. Error terms were allowed to covary. Model 3 in Table 1 delineates the results of confirmatory factor analysis where 21 indicators loaded on their respective first order factors and the four first order factors converged on the superordinate construct of psychological capital. The chi square to *df* ratio was 1.77, which was below the recommend value of 2. Other indices of model fit also demonstrated an excellent fit between the data and the model. The values of *CFI, GFI, AGFI,* and *NFI* are all above .90 and hence meet the stringent criteria of fit indices. The value of *RMSEA* is 0.039 with a non-significant p value ($p = .99$) and the standardized *RMR* is well below the cutoff point of .05. The higher order factorial structure of PsyCap Questionnaire was further ascertained by comparing second order factor model with first order model having four factors. Chi square difference test suggested that model 2 is slightly better than model 3 ($\Delta\chi^2 = 5.99$, $p = .05$).

Table 29

Standardized Solutions by Confirmatory Factor Analysis of PsyCap Questionnaire (N = 500)

	Factors			
Items	Self-efficacy	Hope	Resilience	Optimism
	.87			
1	.73			
2	.74			
3	.66			
4	.75			
5	.56			
6	.50			
		.94		
7		.56		

Continued…

Items	Factors			
	Self-efficacy	Hope	Resilience	Optimism
8		.70		
9		.62		
10		.77		
11		.76		
12		.67		
			.88	
14			.51	
15			.50	
16			.57	
17			.49	
18			.62	
				.75
19				.65
21				.66
22				.52
24				.62

Note. Bold type standardized factor loadings are second order factor loadings for psychological capital.

Table 29 presents the standardized solutions by confirmatory factor analysis of PsyCap Questionnaire. Since psychological capital has been conceived as a higher order construct comprising of closely related factors, therefore, error variances were allowed to covary. Item nos. 13, 20, and 23 had factor loadings below .40; therefore, they were dropped from further analysis. These three items were the only negatively scored items in this questionnaire. The factor loadings in bold type represent the standardized solutions for second order factor analysis which indicated that factor loadings of all first order factors on the second order factor of psychological capital was greater than .70. This testifies the operationalization of positive psychological capital as a superordinate construct comprising of four factors.

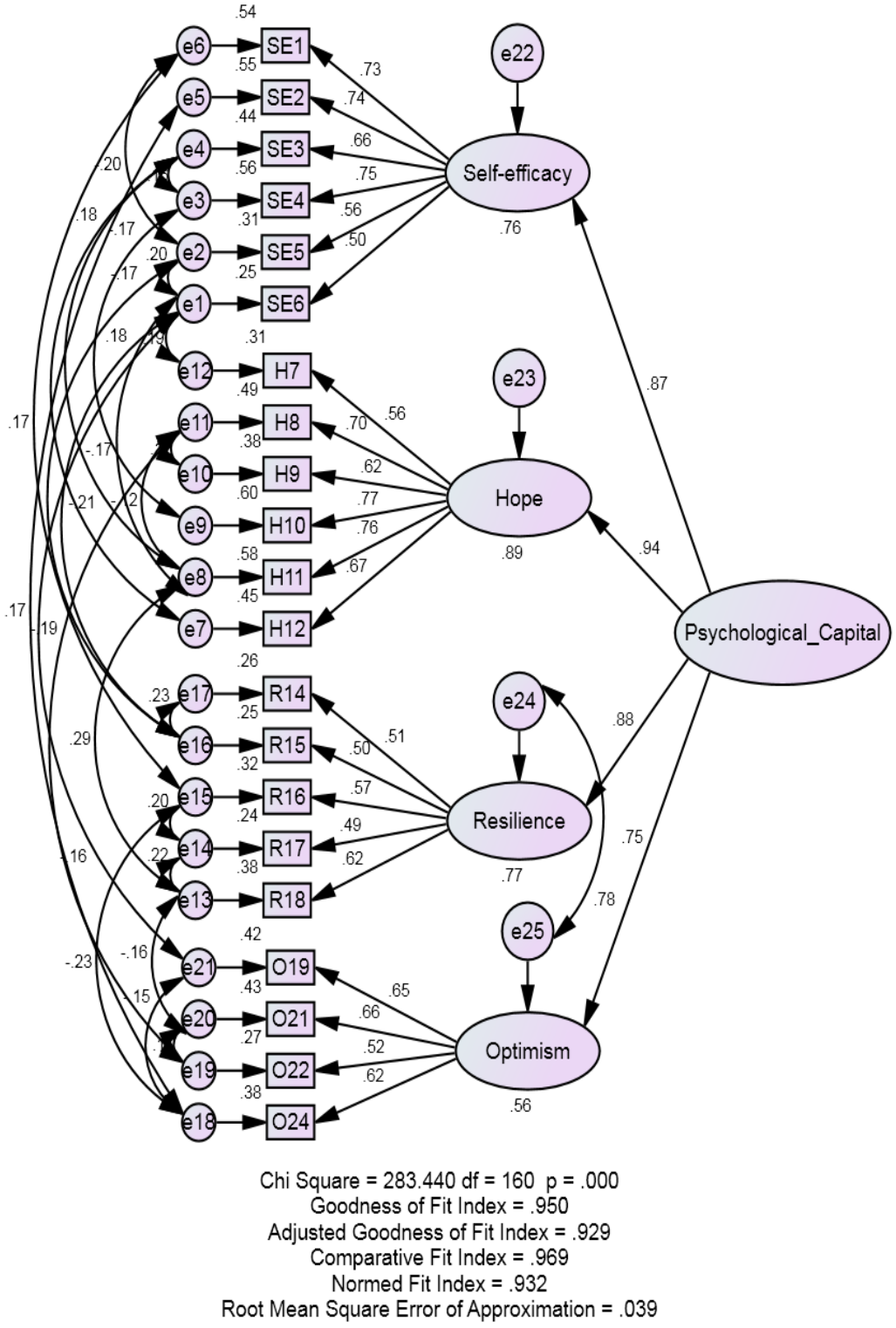

Figure 17. Standardized factor loadings in confirmatory factor analysis of PsyCap Questionnaire

Confirmatory factor analysis of Positive and Negative Affectivity of PANAS. Positive and Negative Affectivity Schedule (PANAS) has been operationalized as comprising of two independent dimensions namely positive affectivity (PA) and negative affectivity (NA). The factorial structure of each of these dimensions was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 30 presents fit indices of various competing factorial model of PA and NA; and Table 31 depicts standardized factor loadings.

Table 30

Stepwise Model Fit Indices for CFA of Positive and Negative Affectivity Schedule (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (20 Items)										
	775.64	169	.86	.83	.78	.74	.085	.069	-	-
Model 2 (18 Items)										
	212.05	114	.96	.93	.96	.92	.042	.042	563.59***	55

***$p < .001$

Table 30 presents the stepwise model fit indices for confirmatory factor analysis of Positive and Negative Affectivity Schedule (PANAS). The original measurement model of PANAS comprised of 20 indicators (model 1) where 10 indicators operationalized positive affectivity and the other 10 measured negative affectivity. The error variances in this model were independent of one another. The findings of the first model of PANAS where 20 indicators were independent in terms of their error covariances yielded unsatisfactory results with a poor chi-square to *df* ratio of 4.59. This suggested that the sample data did not fit to the proposed measurement model. Other measures of fit also demonstrated an unacceptable fit. Items with factor loadings below .40 were discarded from further analysis, which gave rise to model 2 that comprised of nine indicators of positive affectivity and nine indicators of negative affectivity. This model demonstrated an excellent fit with chi

square to df ratio of 1.86. The values of *CFI, GFI, AGFI,* and *NFI* were above .90; *RMSEA* also indicated a good fit with non-significant p value. Chi square difference test also suggested that model 2 demonstrated significantly better fit with data as compared to model 1 ($\Delta\chi^2 = 563.59$, $p < .001$).

Table 31

Standardized Solutions by Confirmatory Factor Analysis of Positive and Negative Affectivity Schedule (N = 500)

Items	Factors	
	Positive Affectivity	Negative Affectivity
1	.53	
3	.53	
5	.58	
9	.57	
12	.45	
14	.53	
16	.55	
17	.50	
19	.67	
2		.44
4		.73
6		.57
7		.47
11		.51
13		.65
15		.75
18		.74
20		.56

Table 31 presents the standardized factor loadings of PANAS. Item no. 10 of positive affectivity and item no. 8 of negative affectivity had factor loadings below

.40; therefore, these items were discarded. All other items had standardized loadings of greater than .40 on their respective factors and no evidence of cross loading was recorded in the modification indices. This provided empirical support for the factorial structure of Positive and Negative Affectivity Schedule as comprising of two latent factors namely positive affectivity and negative affectivity.

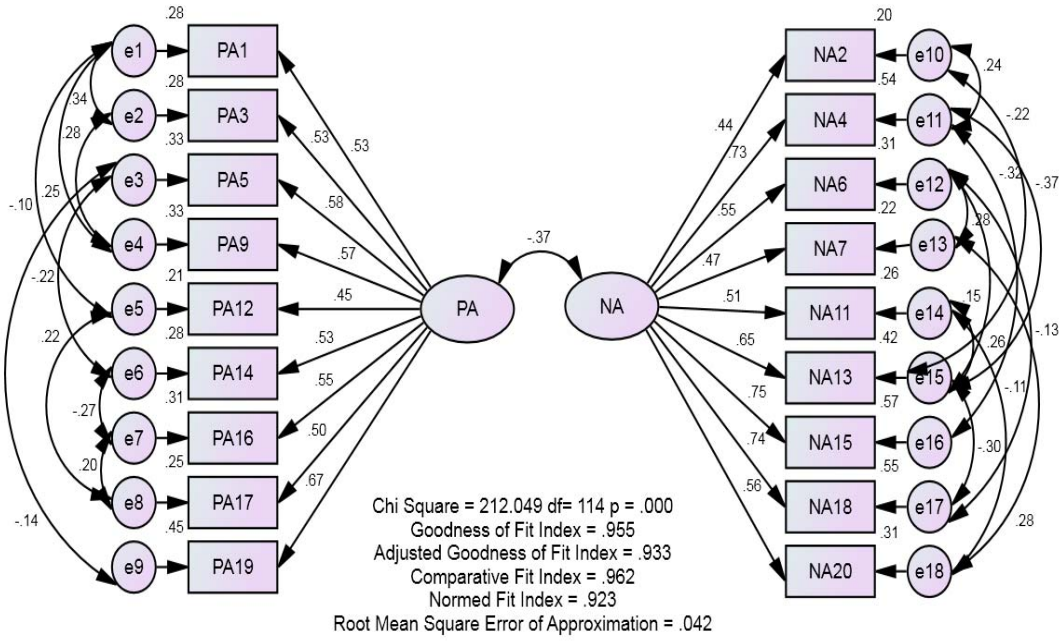

Figure 18. Standardized factor loadings in confirmatory factor analysis of Positive and Negative Affectivity Schedule

Confirmatory factor analysis of Authentic Leadership Questionnaire. The factorial structure of Authentic Leadership Questionnaire was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 32 presents fit indices of various competing factorial model of this scale and Table 33 depicts standardized factor loadings.

Table 32

Stepwise Model Fit Indices for CFA of Authentic Leadership Questionnaire (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (16 Items, Second Order)										
	647.29	100	.85	.79	.88	.86	.105	.060	-	-
Model 2 (16 Items, First Order)										
	136.57	74	.97	.94	.99	.97	.041	.029	510.72***	26
Model 3 (16 Items, Second Order)										
	143.49	75	.97	.94	.99	.97	.043	.029	6.92**	1

***$p < .001$

Table 32 presents the stepwise model fit indices for confirmatory factor analysis of Authentic Leadership Questionnaire (ALQ). The original measurement model of authentic leadership was estimated through a second order confirmatory factor analysis where authentic leadership was the second order factor with self-awareness, relational transparency, internalized perspective, and moral balanced processing as first order factors (see Model 1). This model assumed that error variances of the indicators were independent of one another. Each first order factor comprised of four indicators. Thus, this model consisted of 16 items. The findings of the first model of ALQ where 16 indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 6.47. This suggested that the sample data did not fit to the proposed measurement model. Other measures of fit also demonstrated an unacceptable fit (*GFI*=.85, *AGFI*=.79, *CFI*=.88, *NFI* = .86, *RMSEA*=.105, *Standardized RMR*=.060).

The model was re-specified with the same 16 indicators because standardized factor loadings of all the indicators were greater than .50 but this time error variance of various indicators were allowed to covary. As per suggestion of modification indices, error variances of two first order latent factors namely self-awareness and relational transparency were also allowed to covary. Model 3 in Table 5 delineates the results of confirmatory factor analysis where 16 indicators loaded on their respective

first order factors and the four first order factors converged on the superordinate construct of authentic leadership. The chi square to *df* ratio was 1.91, which was below the recommend value of 2. Other indices of model fit also demonstrated an excellent fit between the data and the model. The values of *CFI, GFI,* and *NFI* are all above .95 and hence meet the most stringent criteria of fit indices. The value of *RMSEA* is 0.043 with a non-significant p value (p = .86) and the standardized *RMR* is well below the cutoff point of .05. The higher order factorial structure of Authentic Leadership Questionnaire was further ascertained by comparing second order factor model with first order model having four factors. Chi square difference test suggested that the models fits the data equally well ($\Delta\chi^2$ = 2.75, p = n.s).

Table 33

Standardized Solutions by Confirmatory Factor Analysis of Authentic Leadership Questionnaire (N = 500)

Items	Factors			
	Self-awareness	Relational Transparency	Internalized Perspective	Balanced Processing
	.86			
1	.70			
2	.74			
3	.80			
4	.66			
		.81		
5		.61		
6		.90		
7		.58		
8		.72		
			.99	
9			.65	
10			.61	

Continued…

Items	Factors			
	Self-awareness	Relational Transparency	Internalized Perspective	Balanced Processing
11			.66	
12			.77	
13			.77	
				.94
14				.80
15				.78
16				.77

Note. Bold type standardized factor loadings are second order factor loadings for authentic leadership.

Table 33 presents the standardized factor loadings of second order confirmatory factor analysis of Authentic Leadership Questionnaire. The factor loadings of all first order factors were greater than .70 and it testifies that all first order factors converge well on their superordinate construct of authentic leadership. Standardized factor loadings of all indicators of first order factors were above .50, which elucidated that all indicators of various factors of authentic leadership had their unique contribution in the operationalization of this construct.

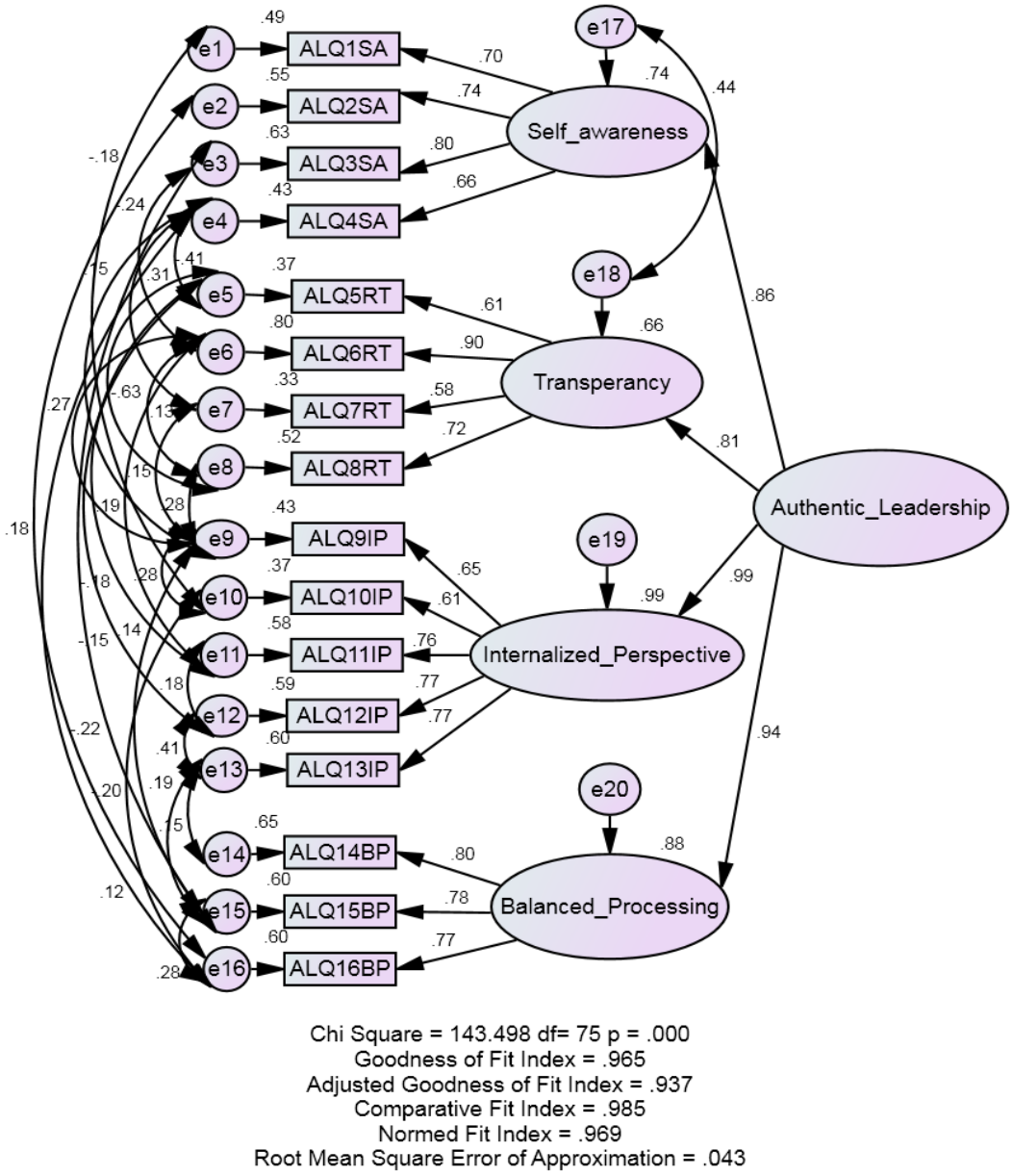

Figure 19. Standardized factor loadings in confirmatory factor analysis of Authentic Leadership Questionnaire

Confirmatory factor analysis of Psychological Ownership Questionnaire. The factorial structure of Psychological Ownership Questionnaire was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 34 presents fit indices of various competing factorial model of this scale and Table 35 depicts standardized factor loadings of the same.

Table 34

Stepwise Model Fit Indices for CFA of Psychological Ownership Questionnaire (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (12 Items, Second Order)										
	173.26	50	.95	.92	.96	.95	.070	.051	-	-
Model 2 (10 Items, First Order)										
	77.65	45	.97	.95	.99	.98	.038	.036	95.61***	5
Model 3 (10 Items, Second Order)										
	80.57	46	.97	.95	.99	.98	.039	.036	2.92	1

*$p < .05$, ***$p < .001$

Table 34 presents the stepwise model fit indices for confirmatory factor analysis of Psychological Ownership Questionnaire (POQ). The original measurement model of psychological ownership was estimated through a second order confirmatory factor analysis where psychological ownership was the second order factor with self-efficacy (3 indicators), accountability (3 indicators), belongingness (3 indicators), and self-identity (3 indicators) as first order factors (see Model 1). In sum, this model comprised of 12 indicators and independent error variances.

The findings of the first model of POQ where 12 indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 3.47. This suggested that the sample data did not fit to the proposed measurement model. Although values of *GFA, CFI*, and *NFI* meet the cutoff point, values of *RMSEA* and *Standardized RMR* indicated poor fit. The model was re-specified after allowing the error variances of various indicators to covary. The error variances of two first order latent factors namely self-efficacy and belongingness were also allowed to covary as per the suggestion of modification indices.

Model 3 in Table 7 delineates the results of confirmatory factor analysis where 12 indicators loaded on their respective first order factors and the four first order factors converged on the superordinate construct of promotive psychological ownership. The chi square to *df* ratio was 1.75, which was below the recommend

value of 2. Other indices of model fit also demonstrated an excellent fit between the data and the model. The values of *CFI, GFI, AGFI,* and *NFI* are all above .95 and hence meet the most stringent criteria of fit indices. The value of *RMSEA* is 0.039 with a non-significant p value (p = .91) and the standardized *RMR* is well below the cutoff point of .05. The higher order factorial structure of Psychological Ownership Questionnaire was further ascertained by comparing second order factor model with first order model having four factors. Chi square difference test suggested that model2 demonstrated a better fit with data as compared to model 3 ($\Delta\chi^2 = 5.99$, $p < .05$).

Table 35

Standardized Solutions by Confirmatory Factor Analysis of Psychological Ownership Questionnaire (N = 500)

	Factors			
Items	Self-efficacy	Accountability	Belongingness	Self-identity
	.65			
5	.81			
6	.90			
7	.78			
		.51		
8		.70		
9		.72		
10		.82		
			.96	
11			.87	
12			.85	
13			.83	
				.89
14				.84
15				.74
16				.69

Note. Bold type standardized factor loadings are second order factor loadings for psychological ownership.

Table 35 depicts the standardized factor loadings of second order confirmatory factor analysis of Psychological Ownership Questionnaire (Promotive Domain).

Standardized factor loadings of all indicators of first order factors were above .60, which revealed that all indicators of various factors of promotive psychological ownership had their unique contribution in the operationalization of this construct. The factor loadings of all first order factors were greater than .50 and it testifies that all first order factors converge well on their superordinate construct of authentic leadership.

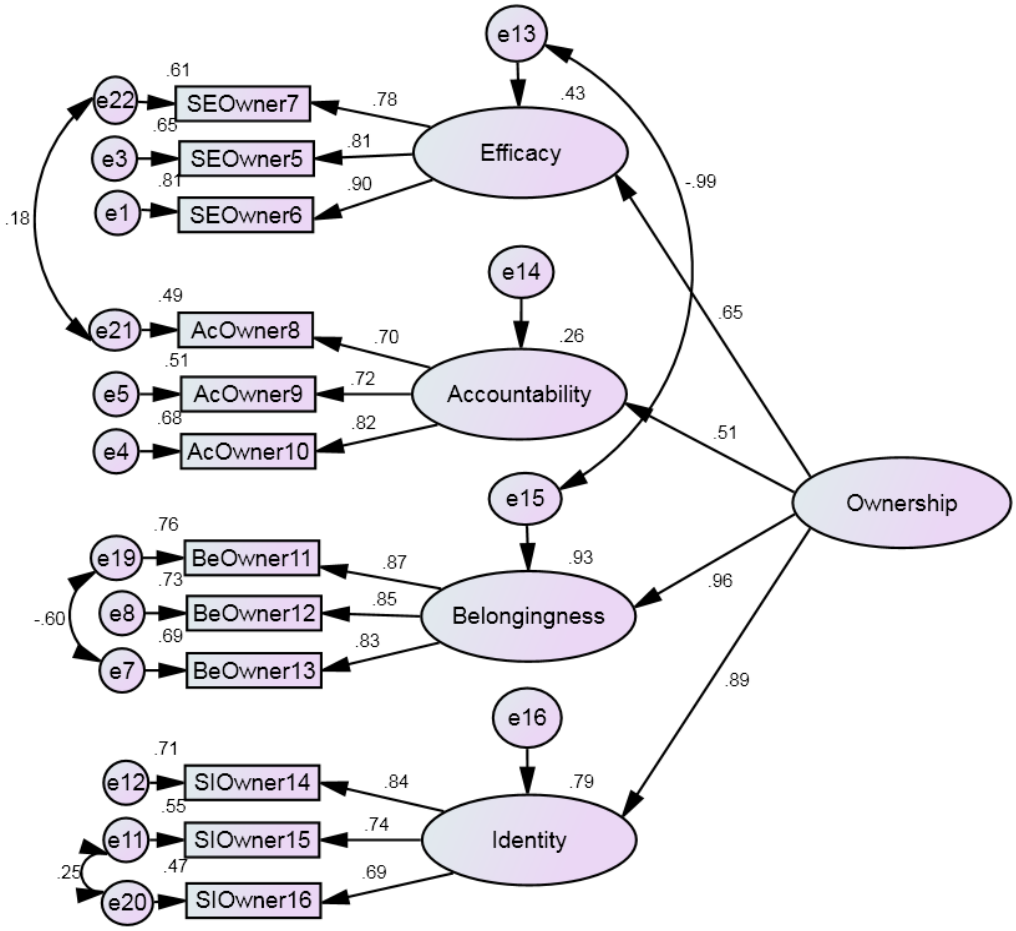

Figure 20. Standardized factor loadings in confirmatory factor analysis of Psychological Ownership Questionnaire

Confirmatory factor analysis of territoriality. The factorial structure of territoriality construct as measured through an independent dimension of Psychological Ownership Questionnaire was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 36 presents fit indices of various competing factorial model of this scale.

Table 36

Stepwise Model Fit Indices for CFA of Territoriality (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (4 Items, Without any Error Covariance)										
	15.48	2	.98	.93	.98	.98	.116	.024	-	-
Model 2 (4 Items, With Error Covariance)										
	.001	1	1.00	1.00	1.00	1.00	.000	.0002	15.48**	1

**$p < .001$

Table 36 presents the stepwise model fit indices for confirmatory factor analysis of territoriality as measured through Preventative Psychological Ownership domain of Psychological Ownership Questionnaire. The original measurement model of comprised of 4 indicators. The findings of the first model of territoriality where the four indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 7.74. This suggested that the sample data did not fit to the proposed measurement model. Although values of *GFA, CFI*, and *NFI* exceed the cutoff point, values of *RMSEA* and *Standardized RMR* indicated poor fit.

The model was respecified in consonance with the modification indices (MIs) and error terms of item 2 and 4 were allowed to covary. Model 2 in Table 9 delineates the results of confirmatory factor analysis where chi square to *df* ratio was dropped to .001, which was below the recommend value of 2. Other indices of model fit also

demonstrated an excellent fit between the data and the model. The values of *CFI, GFI, AGFI, NFI,* and *RMSEA* indicated a perfect fit between the model and data. Chi square difference test suggested that model 2 demonstrated a better fit with data as compared to model 1 ($\Delta\chi^2$ = 15.48, p < .01). The standardized factor loadings of territoriality ranged from .61 to .88, which suggested that the four items in this subscale had significant contributions in the measurement of their focal construct.

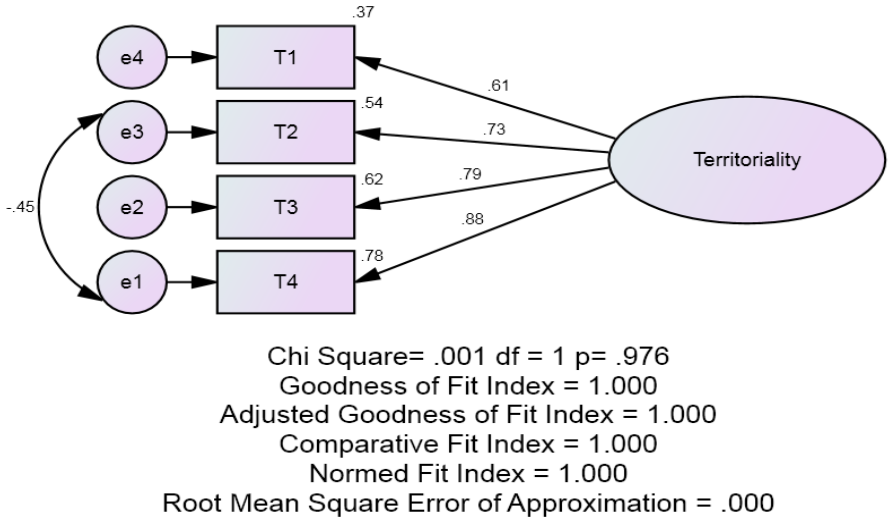

Figure 21. Standardized factor loadings in confirmatory factor analysis of territoriality subscale of Psychological Ownership Questionnaire

Confirmatory factor analysis of Quantitative Overload Scale. The factorial structure of Quantitative Overload Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 37 presents fit indices of various competing factorial model of this scale whereas.

Table 37

Stepwise Model Fit Indices for CFA of Quantitative Role Overload Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (6 Items, First Order)										
	127.62	9	.92	.82	.87	.86	.163	.063	-	-
Model 2 (5 Items, First Order)										
	2.36	2	.99	.99	1.00	.99	.019	.008	125.26***	7

***p* < .001

Table 37 presents the stepwise model fit indices for confirmatory factor analysis of Quantitative Role Overload Scale. The original measurement model of quantitative workload comprised of 6 indicators, which were independent of one another in terms of their error variances. The findings of the first model of Quantitative Role Overload Scale where 6 indicators were independent in terms of their error covariances yielded unsatisfactory results with a very high chi-square to *df* ratio of 14.18. This suggested that the sample data did not fit to the proposed measurement model. Other measures of fit also demonstrated an unacceptable fit. Item no. 5 had low factor loadings therefore, it was dropped. The model was re-specified in consonance with the modification indices (MIs) and error terms of various indicators were allowed to covary. Model 2 in Table 10 delineates the results of confirmatory factor analysis where chi square value of 2.36 was non-significant. The values of *CFI, GFI, AGFI,* and *NFI* were above .95; *RMSEA* also indicated a good fit with non-significant p value. Chi square difference test also suggested that model 2 demonstrated significantly better fit with data as compared to model 1 ($\Delta\chi^2$ = 125.26, $p < .001$). The standardized factor loadings of items of this scale ranged from .63 to .73, which suggested that these five items had significant contribution in the operationalization of quantitative overload. Figure 6 present a schematic view of factor analysis of Quantitative Overload Scale.

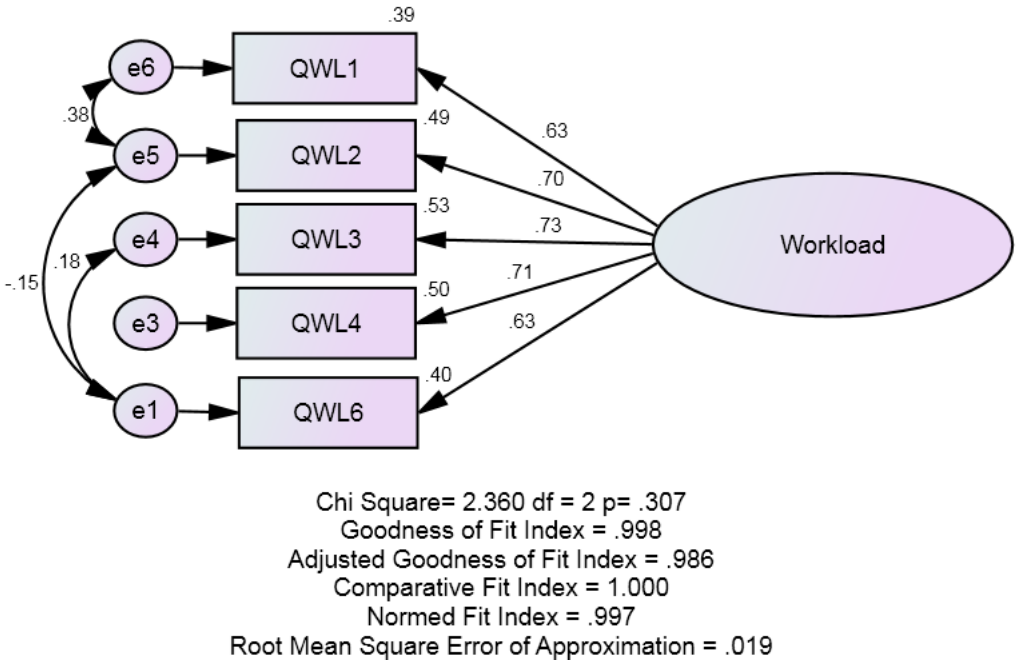

Figure 22. Standardized factor loadings in confirmatory factor analysis of Quantitative Overload *Scale*

Confirmatory factor analysis of Social Support. The present research has conceived social support as comprising of the composite of supervisor support and co-worker support. Factorial structure of social support was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 38 presents fit indices of various competing factorial model of this scale whereas Table 39 depicts standardized factor loadings.

Table 38

Stepwise Model Fit Indices for CFA of Social Support Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (8 Items, Second Order)										
	95.42	19	.95	.91	.96	.95	.090	.038	-	-
Model 2 (8 Items, First Order)										
	17.22	12	.99	.98	.99	.99	.030	.023	78.2***	7
Model 3 (8 Items, Second Order)										
	17.22	12	.99	.98	.99	.99	.030	.023	0	0

***$p < .001$

Table 38 depicts the stepwise model fit indices for confirmatory factor analysis of Social Support Scale. The original measurement model of social support was estimated through a second order confirmatory factor analysis where social support was the second order factor with coworker support (4 indicators) and supervisor support (4 indicators) as first order factors (see Model 1). In sum, this model comprised of 8 indicators with independent error variances. The findings of the first model of social support where 8 indicators were independent in terms of their error covariances yielded unsatisfactory results with a significant chi-square to *df* ratio of 5.02. This suggested that the sample data did not fit to the proposed measurement model. Although values of *GFA, CFI*, and *NFI* meet the cutoff point, values of *AGFI* and *RMSEA* indicated poor fit. The model was re-specified after allowing the error variances of various indicators to covary. Model 3 in Table 18 delineates the final results of confirmatory factor analysis where 8 indicators loaded on their respective first order factors and the two first order factors converged on the superordinate construct of social support. The chi square value was no more significant. Other indices of model fit also demonstrated an excellent fit between the data and the model. The values of *CFI, GFI, AGFI,* and *NFI* were all above .95. The value of *RMSEA* is 0.030 with a non-significant *p* value ($p = .86$) and the standardized *RMR* is well below the recommended value. The higher order factorial structure of Social

Support Scale was further ascertained by comparing second order factor model with first order model having four factors. Chi square difference test suggested that second order model fits the data better as compared to its counterpart first order model ($\Delta\chi^2$ = 5.99, $p < .05$).

Table 39

Standardized Solutions by Confirmatory Factor Analysis of Social Support (N = 500)

	Factors	
Items	Coworker Support	Supervisor Support
	.86	
1	.60	
2	.43	
3	.83	
4	.82	
		.63
5		.81
6		.88
7		.89
8		.84

Note. Bold type standardized factor loadings are second order factor loadings for social support.

Table 39 presents standardized factor loadings for social support and its two dimensions. All indicators had high loadings on their respective first order factors, which indicated that all indicators significantly contributed towards the measurement of their focal constructs. The factor loadings of all first order factors were significant and greater than .50, which testifies that all first order factors converge well on their superordinate construct of social support.

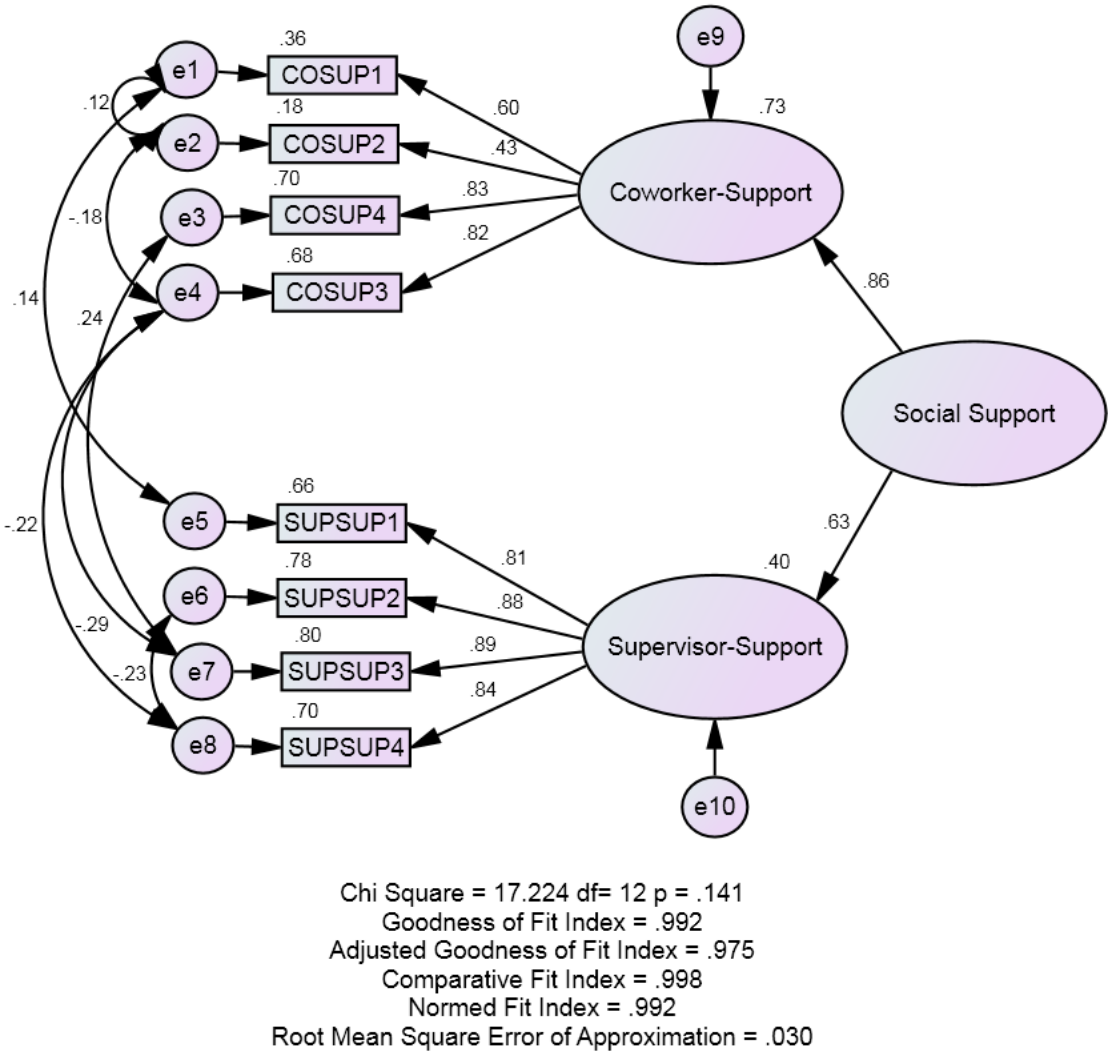

Figure 23. Standardized factor loadings in confirmatory factor analysis of Social Support Scale

Confirmatory factor analysis of Job Autonomy Scale. The factorial structure of Job Autonomy Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. The scale comprised of three items all of which had high loadings on their latent factor. Standardized factor loadings ranged from .60 to .85. The error variances of all indicators remained independent of one another and the model reflected an excellent fit to the data {χ^2 (1) = 0.54, GFI = .99, AGFI = .99, CFI = 1.00, NFI = .99, RMSEA = .000, St. RMR = .007}.

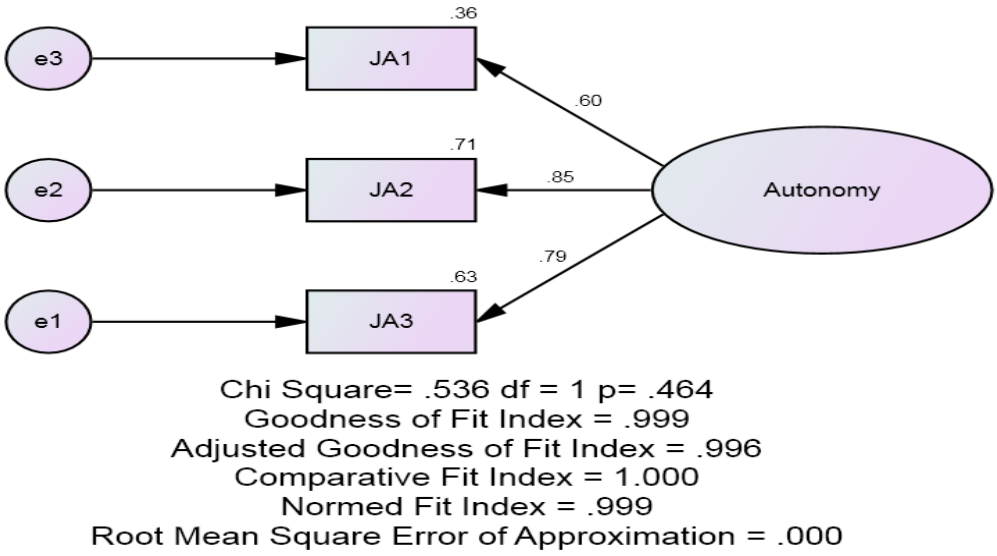

Figure 24. Standardized factor loadings in confirmatory factor analysis of Job Autonomy Scale

Confirmatory factor analysis of Utrecht Work Engagement Scale. The factorial structure of Utrecht Work Engagement Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 40 presents fit indices of various competing factorial model of this scale and Table 41 depicts standardized factor loadings for the same.

Table 40

Stepwise Model Fit Indices for CFA of Utrecht Work Engagement Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (9 Items, Second Order)										
	237.46	25	.90	.83	.89	.88	.131	.061	-	-
Model 2 (8 Items, First Order)										
	16.12	10	.99	.97	.99	.99	.035	.020	221.34***	15
Model 3 (8 Items, Second Order)										
	18.78	11	.99	.97	.99	.99	.038	.031	2.66	1

***$p < .001$

Table 40 presents the stepwise model fit indices for confirmatory factor analysis of Utrecht Work Engagement Scale. The original measurement model of work engagement was estimated through a second order confirmatory factor analysis where work engagement was the second order factor with vigor (3 indicators), dedication (3 indicators), and absorption (3 indicators) as first order factors (see Model 1). In sum, this model comprised of 9 indicators with independent error variances. The findings of the first model of UWES where 9 indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 9.49. This suggested that the sample data did not fit to the proposed measurement model. Other measures of fit also demonstrated an unacceptable fit (*GFI*=.90, *AGFI*=.83, *CFI*=.89, *NFI* = .88, *RMSEA*=.131, *Standardized RMR*=.061). The model was re-specified after excluding item no. 9 that has low factor loading on absorption subscale. Furthermore, error variances were allowed to covary. Model 3 in Table 13 delineates the final results of confirmatory factor analysis where 8 indicators loaded on their respective first order factors and the three first order factors converged on the superordinate construct of work engagement. The chi square value of this model was non-significant. The values of *CFI, GFI, AGFI,* and *NFI* are all above .95 and hence meet the most stringent criteria of fit indices. The value of *RMSEA* is 0.038 with a non-significant p value (p = .73) and the standardized *RMR* is also well below the cutoff point of .05. The higher order factorial structure of Utrecht Work Engagement Scale was further ascertained by comparing second order factor model with first order model having three factors. Chi square difference test suggested that both models fits the data equally well ($\Delta\chi^2$ = 2.75, p = n.s).

Table 41

Standardized Solutions by Confirmatory Factor Analysis of Utrecht Work Engagement Scale (N = 500)

Items	Factor		
	Vigor	Dedication	Absorption
	.98		
1	.42		
2	.80		
5	.63		
		.95	
3		.89	
4		.84	
7		.60	
			.88
6			.75
8			.62

Note. Bold type standardized factor loadings are second order factor loadings for work engagement.

Table 41 depicts the standardized factor loadings of second order confirmatory factor analysis of Utrecht Work Engagement Scale. Except for item no. 9 of absorption subscale, all other indicators had standardized factor loadings above .40 which revealed that items of various factors of work engagement had their unique contribution in the operationalization of this construct. The factor loadings of all first order factors were greater than .85 and it testifies that all first order factors converge well on their superordinate construct of work engagement.

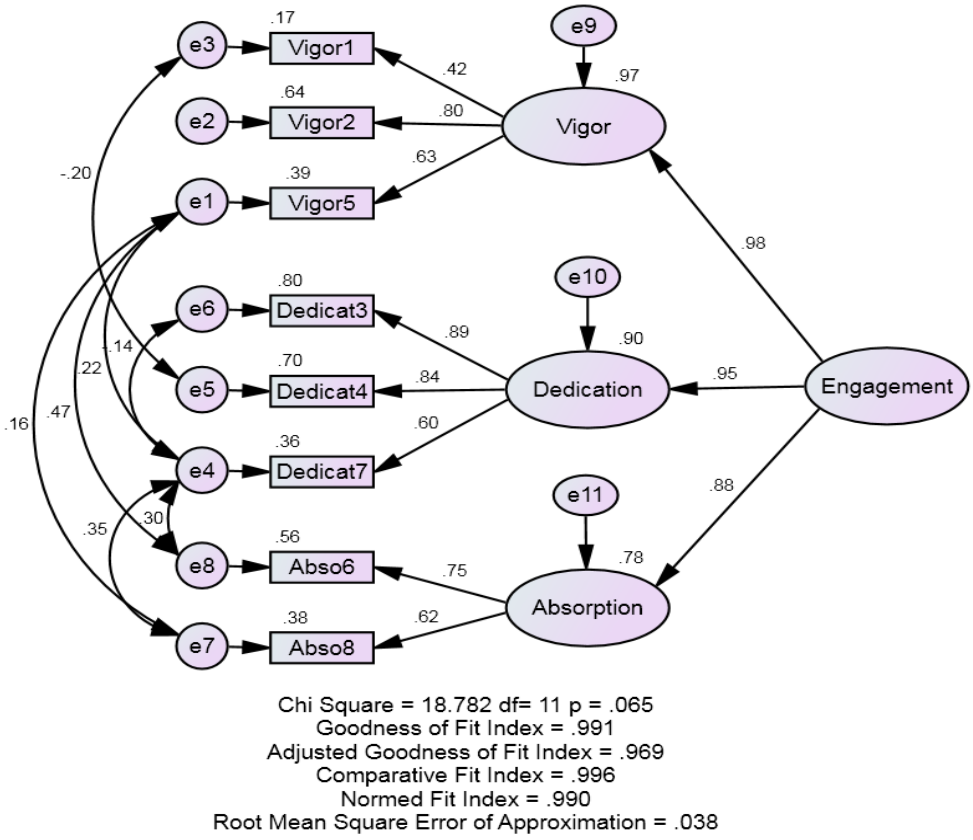

Figure 25. Standardized factor loadings in confirmatory factor analysis of Utrecht Work Engagement Scale

Confirmatory factor analysis of Job Related Affective Wellbeing Scale. The factorial structure of Job Related Affective Wellbeing Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 42 presents fit indices of various competing factorial model of this scale and Table 43 depicts factor loadings for the same.

Table 42

Stepwise Model Fit Indices for CFA of Job Related Affective Wellbeing Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (20 Items, Second Order)										
	800.53	169	.86	.82	.82	.78	.087	.070	-	-
Model 2 (17 Items, First Order)										
	159.64	95	.96	.94	.98	.95	.037	.037	640.89***	74
Model 3 (17 Items, Second Order)										
	159.64	95	.96	.94	.98	.95	.037	.037	0	0

***$p < .001$

Table 42 portrays stepwise model fit indices for confirmatory factor analysis of Job Related Affective Wellbeing Scale. The original measurement model of job related affective wellbeing comprised of 20 indicators and it was estimated through a second order confirmatory factor analysis with job related affective wellbeing as second order factor and positive affect (10 indicators) and negative affect (10 indicators) as first order factors (see Model 1) with independent error variances. The findings of the first model of JAWS where 20 indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 4.73. This suggested that the sample data did not fit to the proposed measurement model. Values of other measures of fit were also demonstrative of unacceptable model fit. The model was re-specified after excluding the items that had factor loadings below .40. Consequently, item nos. 5, 12, and 14 of positive affect and item no. 16 of negative affect were excluded from further analysis. Model 3 in Table 15 delineates the final results of confirmatory factor analysis where 17 indicators loaded on their respective first order factors and the two first order factors converged on the superordinate construct of affective wellbeing. The chi square to *df* ratio was 1.68. Other indices of model fit also demonstrated an excellent fit between the data and the model. The values of *CFI, GFI,* and *NFI* were all above .95. The value of *RMSEA* was well below .05 with a non-significant *p* value and the standardized *RMR* also demonstrated a reasonable fit. The higher order factorial structure of Job Related

Affective Wellbeing Scale was further ascertained by comparing second order factor model with first order model having two factors. Chi square difference test suggested that the second order model (model 3) was superior to the other in fitting the sample data ($\Delta\chi^2 = 9.53$, $p < .05$).

Table 43

Standardized Solutions by Confirmatory Factor Analysis of Job Related Affective Wellbeing (N = 500)

Items	Factors	
	Positive Affect	Negative Affect
	.65	
1	.56	
6	.47	
10	.70	
11	.71	
13	.66	
18	.71	
19	.81	
20	.66	
		1.00
2		.67
3		.43
4		.65
7		.65
8		.66
9		.71
14		.52
15		.57
17		.61

Note. Bold type standardized factor loadings are second order factor loadings for job related affective wellbeing.

Table 43 presents the standardized factor loadings for job related affective wellbeing. The factor loadings of all first order factors were significant and greater

than .70, which indicated the convergent validity and internally consistent structure of Job Related Affective Wellbeing Scale. Except for item no. 5, 12, and 14 of positive affect and item no. 16 of negative affect subscale, all other indicators had standardized factor loadings above .40, which revealed that items of various factors of job related affective wellbeing had their unique contribution in the operationalization of this construct.

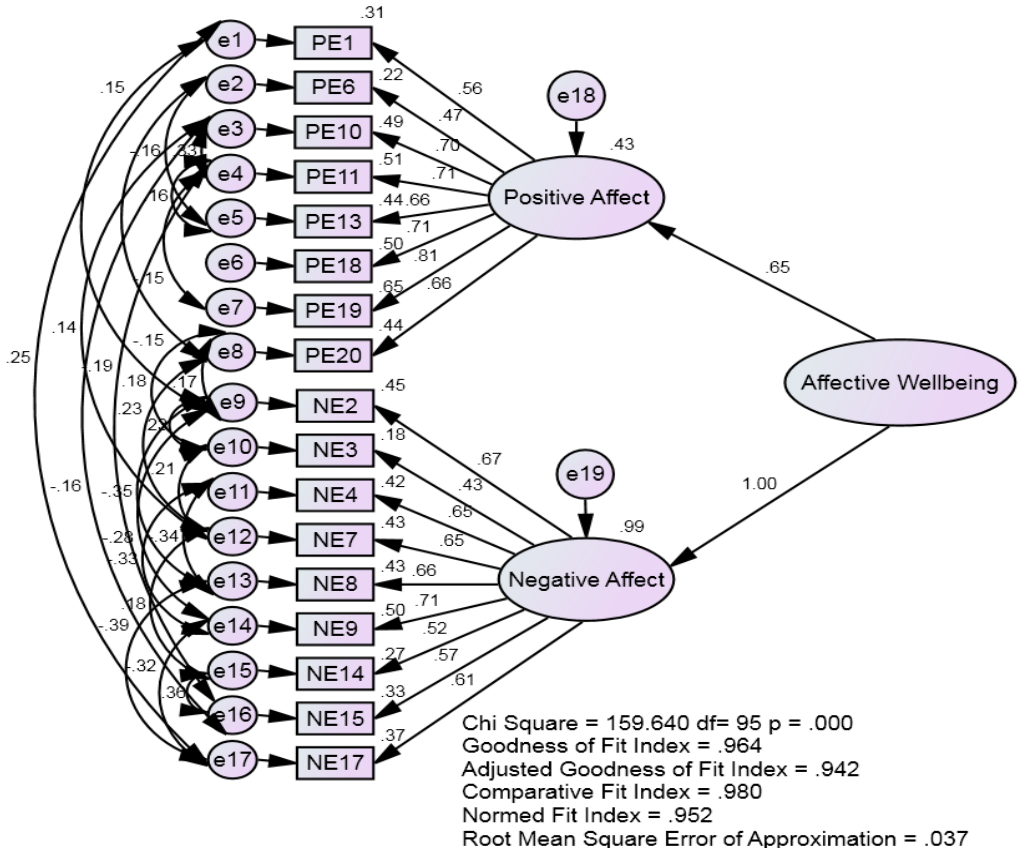

Figure 26. Standardized factor loadings in confirmatory factor analysis of Job Related Affective Wellbeing Scale

Confirmatory factor analysis of Organizational Citizenship Behavior Scale. The factorial structure of Organizational Citizenship Behavior Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 44 presents fit indices of various competing factorial model of this scale and Table 45 depicts factor loadings, reliability, and convergent validity of this measure.

Table 44

Stepwise Model Fit Indices for CFA of Organizational Citizenship Behavior Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (14 Items, Second Order)										
	438.36	76	.88	.83	.69	.66	.098	.089	-	-
Model 2 (10 Items, First Order)										
	52.84	28	.97	.95	.97	.94	.042	.037	385.52***	48
Model 3 (10 Items, Second Order)										
	53.01	29	.98	.96	.97	.94	.041	.037	0.17	1

***$p < .001$

Summary of stepwise model fit indices for confirmatory factor analysis of Organizational Citizenship Behavior Scale is delineated in Table 44. The original measurement model organizational citizenship behavior (OCB) was estimated through a second order confirmatory factor analysis where OCB was the second order factor with OCB targeted at individuals (OCBI, 7 indicators) and OCB targeted at organization (OCBO, 7 indicators) as first order factors (see Model 1) with independent error variances. In sum, this model comprised of 14 indicators. The assessment of fit for this model failed to produce satisfactory result. The chi-square to *df* ratio of 5.77 was suggestive of the unacceptable fit between the data and the proposed measurement model. Values of other measures of fit were also indicative of bad model fit. The model was re-specified after excluding the items that had low factor loadings. Consequently, item nos. 3, 4, 5, and 7 of OCBO factor were excluded from further analysis. Model 3 in Table 17 outlines the final results of confirmatory factor analysis where 10 indicators loaded on their respective first order factors and the two first order factors converged on the superordinate construct of OCB. This model produced a chi square to df ratio of 1.82 along with satisfactory fit indices. The higher order factorial structure of OCB was further ascertained by comparing second order factor model with first order model having two factors. Chi square difference test suggested that both model fits the data equally well ($\Delta\chi^2 = .017$, p = n.s).

Table 45

Standardized Solutions by Confirmatory Factor Analysis of Organizational Citizenship Behavior (N = 500)

Items	Factors	
	OCBO	OCBI
	.98	
1	.58	
2	.54	
6	.43	
		.61
8		.45
9		.60
10		.49
11		.65
12		.69
13		.52
14		.41

Note. Bold type standardized factor loadings are second order factor loadings for organizational citizenship behavior.

Table 45 describes the standardized factor loadings for Organizational Citizenship Behavior Scale. Organizational citizenship behavior targeted at organization had three indicators with standardized factor loading greater than .40 whereas all indicators of organizational citizenship behavior targeted at individuals had high factor loadings on their latent construct.

The second order construct of OCB demonstrated an acceptable level of composite reliability and its average extracted variance is quite adequate. The factor loadings of the two first order factors were significant and greater than .50.

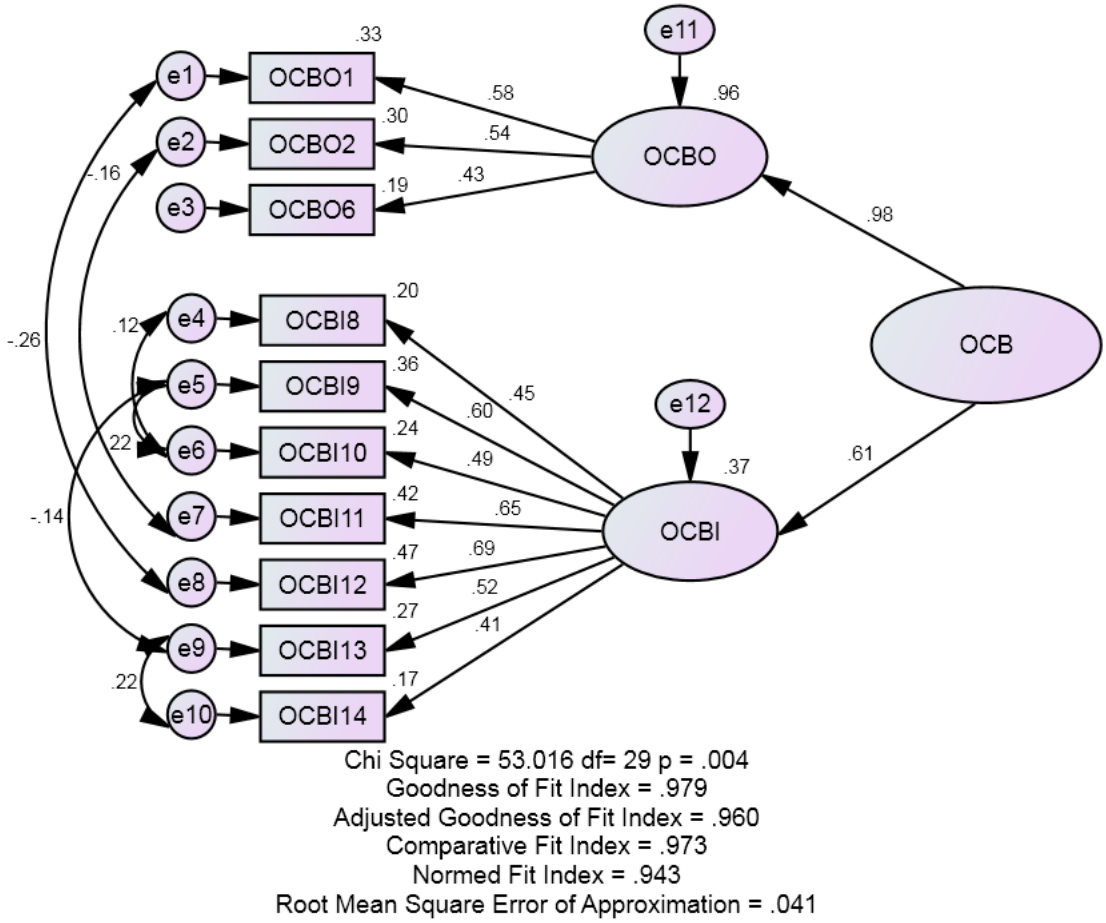

Figure 27. Standardized factor loadings in confirmatory factor analysis of Organizational Citizenship Behavior Scale

Confirmatory factor analysis of Organizational Deviance Scale. The factorial structure of Organizational Deviance Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 46 presents fit indices of various competing factorial model of this scale and Table 47 depicts standardized factor loadings for the same.

Table 46

Stepwise Model Fit Indices for CFA of Organizational Deviance Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (19 Items, Second Order)										
	737.77	152	.86	.83	.80	.76	.088	.063	-	-
Model 2 (16 Items, First Order)										
	160.75	81	.96	.94	.97	.94	.044	.035	577.02***	71
Model 3 (16 Items, Second Order)										
	164.55	82	.96	.94	.97	.94	.045	.035	3.8	1

***$p < .001$

Table 46 summarizes findings of stepwise model fit indices for confirmatory factor analysis of Organizational Deviance Scale. The original measurement model of organizational deviance comprised of 19 indicators and it was assessed through a second order confirmatory factor analysis where organizational deviance was the second order factor with deviance targeted at individuals (7 indicators) and deviance targeted at organization (12 indicators) as first order factors (see Model 1) with independent error variances. The evaluation of fit for this model failed to produce agreeable result. The chi-square to *df* ratio of 4.85 suggested lack of fit between the observed data and the proposed measurement model. Values of other measures of fit were also indicative of poor model fit. The model was re-estimated after excluding the items that had low factor loadings. Consequently, item nos. 2, 5, 12 of deviance targeted at organization factor were excluded from further analysis. All items of deviance targeted at individuals had standardized factor loadings greater than .40. Model 3 in Table 19 sketches the final results of confirmatory factor analysis where 16 indicators loaded on their respective first order factors and the two first order factors converged on the superordinate construct of organizational deviance. Chi square to df ratio was 2 along with satisfactory fit indices, which demonstrated that this model fitted the data very well. The higher order factorial structure of organizational deviance was further ascertained by comparing second order factor model with first order model having two factors. Chi square difference test suggested that both model fits the data equally well ($\Delta\chi^2 = 3.8$, p = n.s).

Table 47

Standardized Solutions by Confirmatory Factor Analysis of Organizational Deviance Scale (N = 500)

Items	Factors	
	CWBO	CWBI
	.96	
1	.42	
3	.43	
4	.47	
6	.54	
7	.52	
8	.54	
9	.71	
10	.64	
11	.49	
		.95
13		.55
14		.61
15		.55
16		.74
17		.58
18		.62
19		.73

Note. Bold type standardized factor loadings are second order factor loadings for counterproductive work behaviors.

Table 47 refers to standardized factor loadings for Organizational Deviance Scale. The convergent validity of organizational deviance is evident in the fact that factor loadings of all indicators were significant and above the cutoff value of .40. Both dimensions of counterproductive wok behaviors had very high factor loadings on their respective second order factor, which testified the convergent validity of this construct.

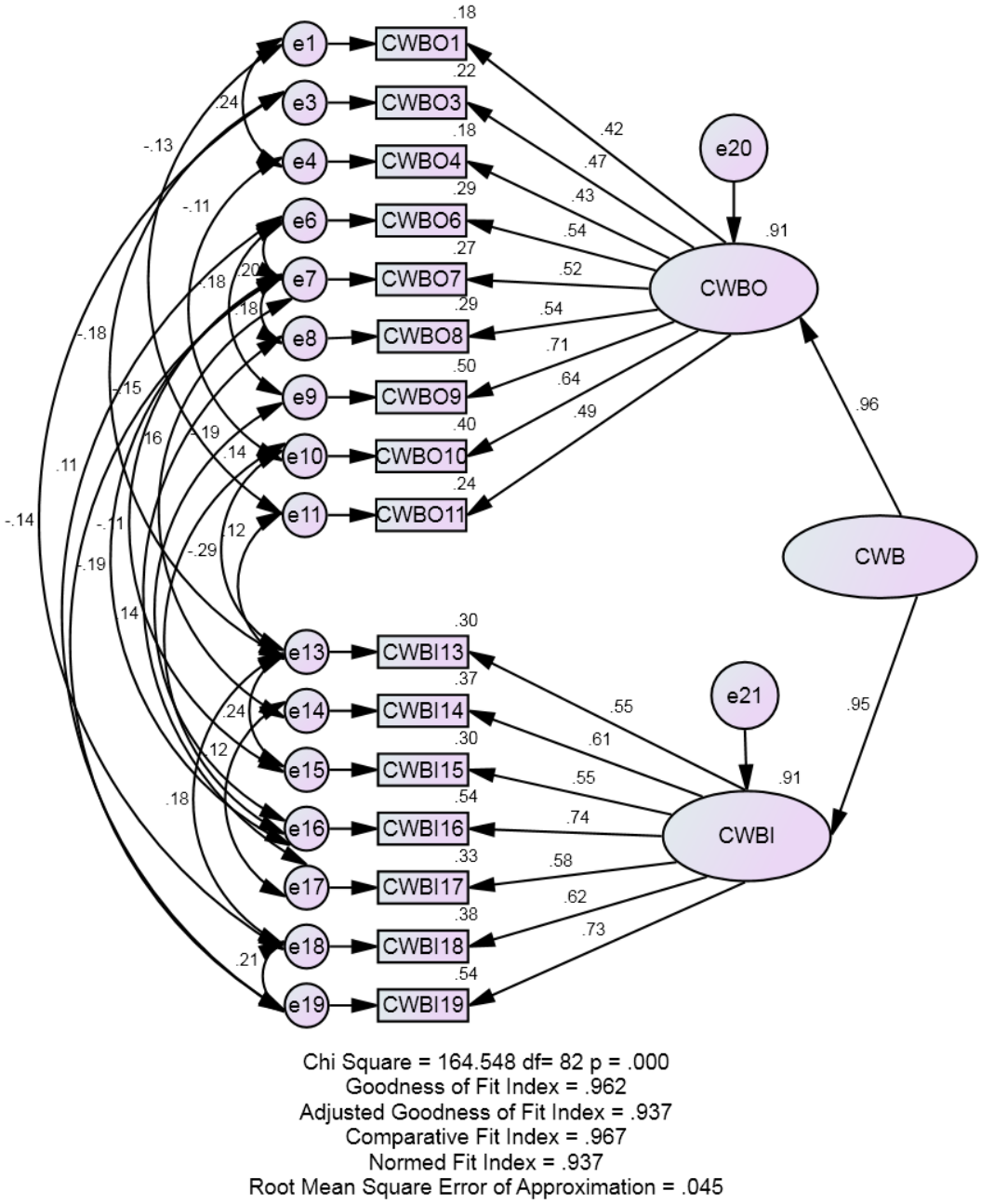

Figure 28. Standardized factor loadings in confirmatory factor analysis of Organizational Deviance Scale

Confirmatory factor analysis of Maslach Burnout Inventory. The factorial structure of Maslach Burnout Inventory was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 48 presents fit indices of various competing

factorial model of this scale and Table 49 delineates standardized factor loadings of the same.

Table 48

Stepwise Model Fit Indices for CFA of Maslach Burnout Inventory (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (22 Items, Second Order)										
	975.99	206	.83	.79	.71	.66	.087	.079	-	-
Model 2 (19 Items, First Order)										
	224.09	121	.96	.93	.95	.91	.041	.041	751.9***	85
Model 3 (19 Items, Second Order)										
	224.34	122	.96	.93	.96	.91	.041	.048	.25	1

***$p < .001$

Table 48 presents the stepwise model fit indices for confirmatory factor analysis of Maslach Burnout Inventory. The original measurement model of burnout was estimated through a second order confirmatory factor analysis where burnout was the second order factor with emotional exhaustion (9 indicators), reduced personal accomplishment (8 indicators), and depersonalization (5 indicators) as first order factors (see Model 1). In sum, this model comprised of 22 indicators with independent error variances. The findings of the first model of MBI where 22 indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 4.74. This suggested a lack of fit between observed data and the proposed measurement model. Other measures of fit also demonstrated an unacceptable fit (*GFI*=.83, *AGFI*=.79, *CFI*=.71, *NFI* = .66, *RMSEA*=.087, *Standardized RMR*=.079). The model was re-specified after excluding the items, which have low standardized factor loadings ($\beta < .30$). As a result, item no.14 of emotional exhaustion subscale and item nos. 5 and 22 of depersonlaization subscale were excluded from further analysis. Error terms of indicators were allowed to covary. Model 3 in Table 21 delineates the final results of confirmatory factor

analysis where 19 indicators loaded on their respective first order factors and the three first order factors converged on the superordinate construct of burnout. The chi square to *df* ratio was 1.83, which was below the recommend value of 2. Other indices of model fit also demonstrated an excellent fit between the data and the model. The values of *CFI, GFI, AGFI,* and *NFI* are all above .90 and hence meet the satisfactory criteria of fit indices. The value of *RMSEA* is 0.041 with a non-significant p value (p = .96) and the standardized *RMR* is well below the cutoff point of .05. The higher order factorial structure of Maslach Burnout Inventory was further ascertained by comparing second order factor model with first order model having four factors. Chi square difference test suggested that both models fits the data equally well ($\Delta\chi^2$ = .25, p = n.s).

Table 49

Standardized Solutions by Confirmatory Factor Analysis of Maslach Burnout Inventory (N = 500)

	Factor		
Items	Exhaustion	Reduced Accomplishment	Depersonalization
	.97		
1	.59		
2	.37		
3	.57		
6	.55		
8	.72		
13	.71		
16	.56		
20	.36		
		.32	
4		.40	
7		.56	
9		.53	
12		.38	
17		.52	

Continued…

Items	Factor		
	Exhaustion	Reduced Accomplishment	Depersonalization
18		.50	
19		.41	
21		.41	
			.75
10			.37
11			.79
15			.36

Note. Bold type standardized factor loadings are second order factor loadings for burnout.

Table 49 presents the standardized factor loadings of Maslach Burnout Inventory. All the retained indicators had standardized factor loadings greater than .35, which suggested that these items were significantly contributing towards the measurement of their focal constructs. The standardized factor loadings of first order factors of emotional exhaustion and depersonalization on the second order construct of burnout was quite high and demonstrated the convergent validity of these two factor as the constituent elements of burnout. The standardized factor loading of reduced personal accomplishment factor, though exceeded .30 was not very satisfactory which suggested that it might not constitute the core component of burnout. This is quite in line with the operationalization of burnout through MBI as Maslach, Jackson, and Leiter (1996) conceived personal accomplishment factor as independent of the two other factors of burnout.

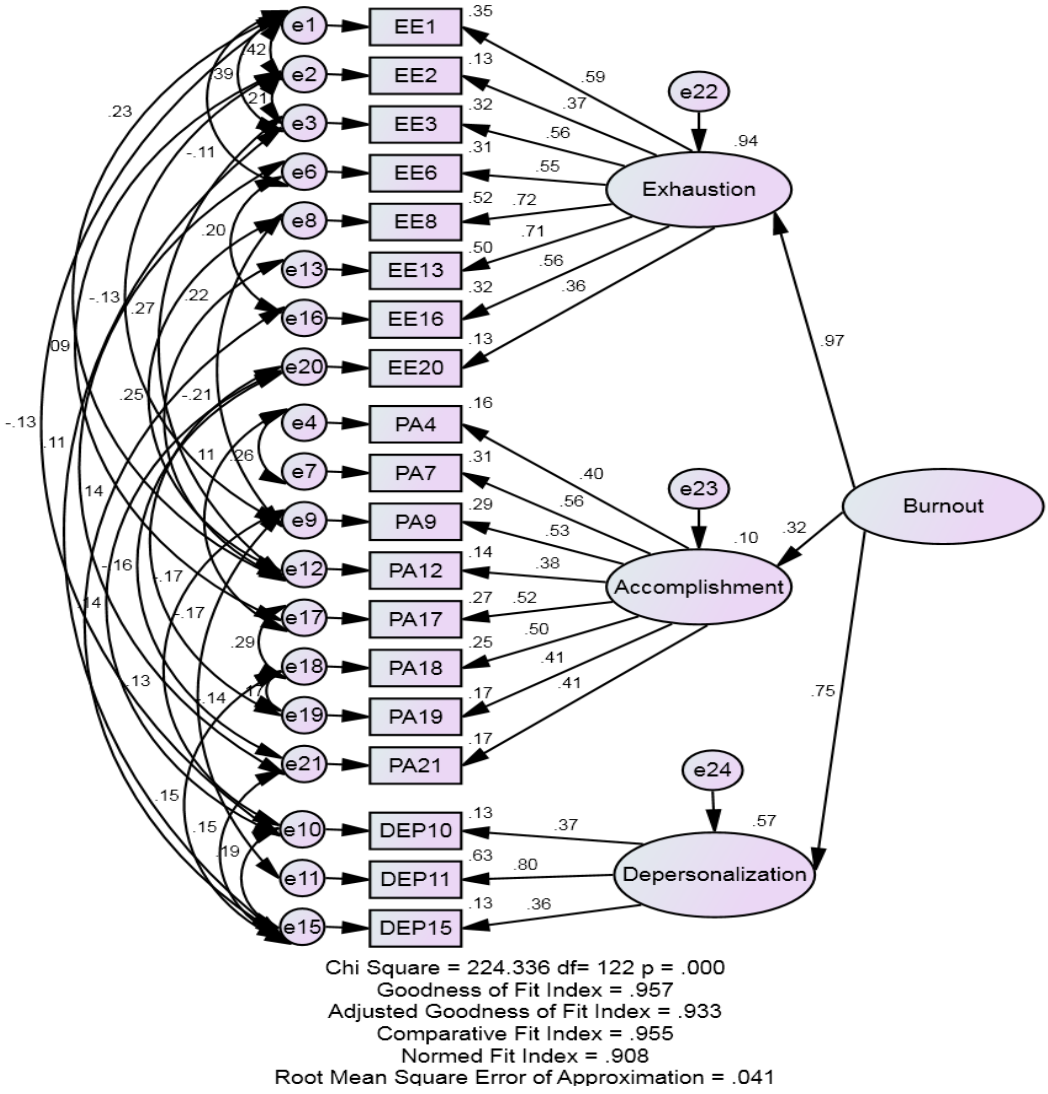

Figure 29. Standardized factor loadings in confirmatory factor analysis of Maslach Burnout Inventory

Confirmatory factor analysis of In-role Performance Scale. The factorial structure of In-role Performance Scale was assessed through confirmatory factor analysis (CFA) through AMOS-20. Table 50 presents fit indices of various competing factorial model of this scale.

Table 50

Stepwise Model Fit Indices for CFA of In-role Performance Scale (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model1 (7 Items, First Order)										
	94.50	14	.94	.89	.92	.90	.107	.059	-	-
Model 2 (5 Items, First Order)										
	.77	4	.99	.99	1.00	.99	.000	.007	93.73***	10

***$p < .001$

Table 50 presents the stepwise model fit indices for confirmatory factor analysis of In-role Performance Scale. The original measurement model of in-role performance comprised of 7 indicators, which were independent of one another in terms of their error variances. The findings of the first model of In-role Performance Scale where 7 indicators were independent in terms of their error covariances yielded unsatisfactory results with an unacceptable chi-square to *df* ratio of 6.75. This suggested a lack of fit between observed data and the proposed measurement model. Other measures of fit were also reflective of an unacceptable fit. Since item nos. 6 and 7 had standardized factor loadings below .40, therefore these items were discarded from further analysis. As per suggestions of modification indices, error variances of item no. 3 and 4 were allowed to covary. This gave rise to model 2 that comprised of 5 indicators having excellent fit with non-significant chi square value of .77. The values of *CFI, GFI, AGFI,* and *NFI* were above .95; *RMSEA* also indicated a good fit with non-significant *p* value. Chi square difference test also suggested that model 2 demonstrated significantly better fit with data as compared to model 1 ($\Delta\chi^2 = 93.73$, $p < .001$). The standardized factor loadings of the five indicators ranged from .50 to .89, which suggested that these items had significant contribution in the measurement of their focal latent construct.

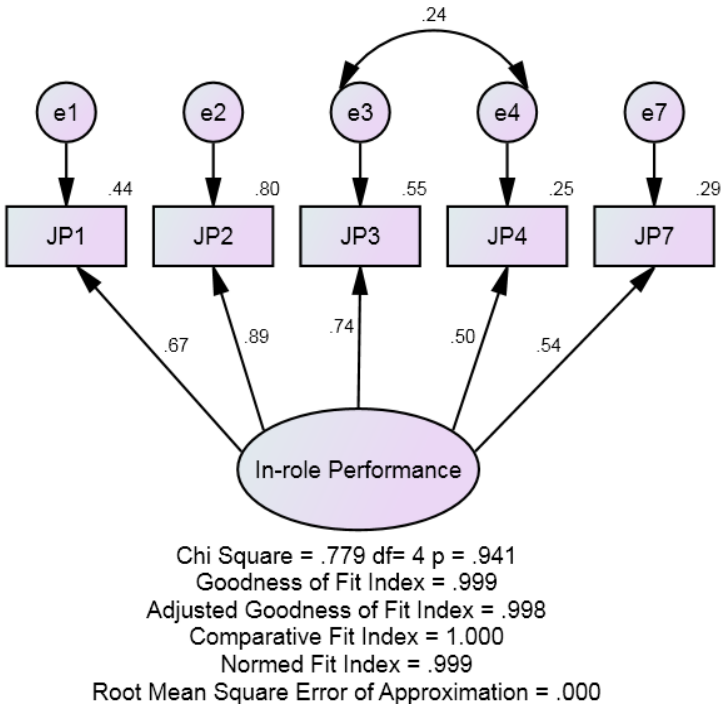

Figure 30. Standardized factor loadings in confirmatory factor analysis of In-role Performance Scale

Part II: Structural Models

The second part of results of main study comprises of structural models for investigating the hypothesized relationships among various variables of the present study. This part is organized such that psychometric properties and descriptive statistics for the variables are presented first. Then a series of structural models are presented. In structural models, model comparison is presented first which compared the serial versus parallel mediations of psychological ownership and work engagement between psychological capital and various work outcomes. Next, a schematic presentation from AMOS graphics for the proposed mediation model of each work outcome is displayed. This is followed by tables of direct and indirect effects along with biased corrected 95% confidence intervals based on bootstrapping of 2000 samples. After mediation models, visual displays from AMOS graphics are presented for moderation analyses followed by a tabular presentations of direct and indirect effects along with confidence intervals. Finally, significant moderations in each model are plotted and interpreted. Results of multivariate analyses of variance (MANOVAs) for demographics and the major variables of the present study are presented at the end of structural models. Finally, this chapter closes with a summary of results of hypotheses testing.

Psychometric Properties of Variables of the Present Study. Table 51 presents means, standard deviations, alpha coefficients of reliability, and 95% confidence intervals for means of major variable of the present study.

Table 51

Psychometric Properties of Major Study Variables (N = 500)

Variables	No. of Items	*M (SD)*	α	95% CI	Sk	Ku
PsyCap	21	57.72 (7.43)	.91	[57.09, 58.34]	-.50	.41
ALQ	16	27.86 (6.92)	.93	[27.23, 28.48]	-.58	-.15
POQ	10	47.71 (7.07)	.88	[47.08, 48.34]	-.79	.86
Ter	4	12.66 (4.62)	.82	[12.24, 13.09]	.18	-.75
SS	8	23.46 (4.29)	.86	[23.07, 23.84]	-.67	.45
Aut	3	12.25 (3.18)	.78	[11.97, 12.54]	-.51	.08
QWL	5	15.97 (4.24)	.82	[15.60, 16.36]	-.37	-.21
Eng	8	27.06 (6.17)	.86	[26.48, 27.64]	-.98	.93
Perf	5	18.32 (2.08)	.80	[18.14, 18.50]	-1.72	4.41
OCB	10	23.54 (3.68)	.76	[23.21, 23.87]	-.17	-.40
JAWS	17	28.80 (4.44)	.86	[28.39, 29.19]	-.68	.81
CWB	16	9.11 (3.24)	.87	[8.82, 9.39]	2.46	8.16
BO	19	12.62 (8.43)	.79	[11.88, 13.37]	.58	.01
PA	9	19.65 (3.54)	.80	[19.33, 19.97]	-.34	-.23
NA	9	7.37 (3.26)	.84	[7.08, 7.66]	.95	.48

Note. PsyCap = psychological capital. AL = authentic leadership. POQ = promotive psychological ownership. Ter = territoriality. SS = social support. Aut = job autonomy. QWL = quantitative overload. Eng = work engagement. Perf = in-role performance. OCB = organizational citizenship behaviors. JAWS = job related affective wellbeing. CWB = counterproductive work behaviors. BO = burnout. PA = positive affectivity. NA = negative affectivity.

[a]Standard error of skewness = 0.11. [b]Standard error of kurtosis = 0.22

Table 51 indicated that all construct measured in the present study entail satisfactory level of internal consistency as none of the alpha coefficients of internal reliability are below the traditional cutoff point of .70. Counterproductive work

behaviors demonstrated the highest degree of internal consistency whereas social support had the lowest levels of internal consistency. Nevertheless, its reliability was also not below the cutoff point of .70. Means and standard deviation of all variables are also reported for descriptive purposes. Biased corrected accelerated 95% confidence interval for mean is based on bootstrapping of 2000 samples and it indicated that none of the confidence interval was aberrantly wide. Furthermore, all means are very likely to be within their corresponding intervals, which is actually quite narrow for all the variables.

Relationships among variable of the present study. Table 52 present the zero-order bivariate correlations among major variable of the present study. Majority of correlations were in the expected directions and significant. Correlations ranged from -.002 to .62. None of the correlation was aberrantly high. Psychological capital, authentic leadership, promotive psychological ownership, and work engagement were positively related with one another as well as with social support, autonomy, in-role performance, organizational citizenship behavior, job related affective wellbeing, and positive affectivity. Psychological capital, authentic leadership, promotive psychological ownership, and work engagement were inversely related with counterproductive work behavior, burnout, and negative affectivity. Social support and autonomy were positively related to in-role performance, organizational citizenship behavior, job related affective wellbeing and positive affectivity and negatively related to counterproductive work behavior, burnout, and negative affectivity. Quantitative overload demonstrated positively relationships with majority of variables except its significant negative relationship with territoriality. Finally territoriality demonstrated significant negative relationship with engagement, social support, authentic leadership, job related affective wellbeing and significant positive relationship with burnout and counterproductive work behaviors.

Table 52

Zero Order Correlations Among Variables of the Present Study (N = 500)

Var	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PsyCap		.30***	.55***	-.05	.36***	.26***	.15**	.46***	.33***	.27***	.53***	-.31***	-.36***	.54***	-.33***
ALQ			.28***	-.16***	.62***	.32***	-.07	.29***	.17***	.12**	.37***	-.12**	-.21***	.18***	-.10*
POQ				.02	.38***	.38***	.24***	.37***	.26***	.30***	.47***	-.18***	-.33***	.39***	-.13**
Ter					-.21***	.05	.10*	-.10*	-.08	-.01	-.17***	.19***	.12**	.01	.08
SS						.39***	.05	.38***	.23***	.28***	.48***	-.18***	-.24***	.24***	-.05
Aut							.02	.25***	.10*	.22***	.33***	-.05	-.31***	.15***	.04
QWL								.09*	.02	.21***	.04	.01	.12**	.11*	-.002
Eng									.25***	.25***	.55***	-.19***	-.44***	.43***	-.13**
Perf										.37***	.33***	-.44***	-.33***	.19***	-.22***
OCB											.19***	-.18***	-.18***	.32***	-.09*
JAWS												-.28***	-.54***	.44***	-.21***
CWB													.37***	-.13**	.23***
BO														-.29***	.20***
PA															-.20***
NA															

Note: Var = variables. PsyCap = psychological capital. AL = authentic leadership. POQ = promotive psychological ownership. Ter = territoriality. SS = social support. Aut = job autonomy. QWL = quantitative overload. Eng = work engagement. BO = burnout. Perf = in-role performance. PA = positive affectivity. NA = negative affectivity. JAWS = job related affective wellbeing. OCB = organizational citizenship behaviors. CWB = counterproductive work behaviors.
*$p < .05$, **$p < .01$, ***$p < .001$

Structural Models

The first structural model relates various variables of the present study with in-role performance. The next model explores the same variables in relation to organizational citizenship behavior, which is followed by the structural models for job related affective wellbeing, counterproductive work behaviors, and burnout. The last structural model is an attempt at testing psychological capital and various forms of psychological ownership in the context of Job Demands-Resources model.

Models of In-role Performance. The first model of this study illustrates the mediating role of psychological ownership and work engagement between psychological capital and in-role performance. More specifically, it suggests a serial mediation where psychological capital leads to psychological ownership. This sense of ownership makes the employees engaged in their work and an engaged workers are more likely to exhibit in-role performance. This model also incorporates job demands resources model suggesting the moderating effects of social support (job resource) and quantitative overload (job demands) on the relationship between work engagement and in-role performance. Finally, this model examines the effect of positive and negative affectivity as control variables in relation to in-role performance, psychological ownership, and work engagement since these personal dispositions have consistently been linked to in-role performance in pertinent literature.

The proposed model of in-role performance was tested in two steps. In first step, only the mediation effects were tested. In second step, interaction terms were added to see the moderating effect of proposed moderators.

Mediation model. In the present study, two nested mediation models of in-role performance were tested. Table 53 presents the fit indices of two nested models of in-role performance and chi-square difference test.

Table 53

Model Fit Indices for In-role Performance (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model 1 (Parallel Mediation)										
	16.46	9	.99	.97	.99	.98	.041	.026	-	-
Model 2 (Serial Mediation)										
	9.60	8	.99	.98	.99	.99	.020	.019	6.86**	1

**$p < .01$

Model 1 was more constrained model where psychological ownership and work engagement were proposed to mediate the relation between psychological capital and in-role performance in parallel fashion. Thus, no path was assumed between psychological ownership and work engagement. Model 2 assumed that the aforementioned variables mediate between psychological capital and in-role performance in a serial fashion where psychological capital leads to psychological ownership, ownership in turn predicts work engagement, and finally engagement heads to in-role performance. As evident by the fit indices, both the models demonstrated acceptable fit to data, however, a chi-square difference test indicated that model 2 fits the data significantly better than model 1. Thus, our proposed model of serial mediation and hypothesis 14 are supported.

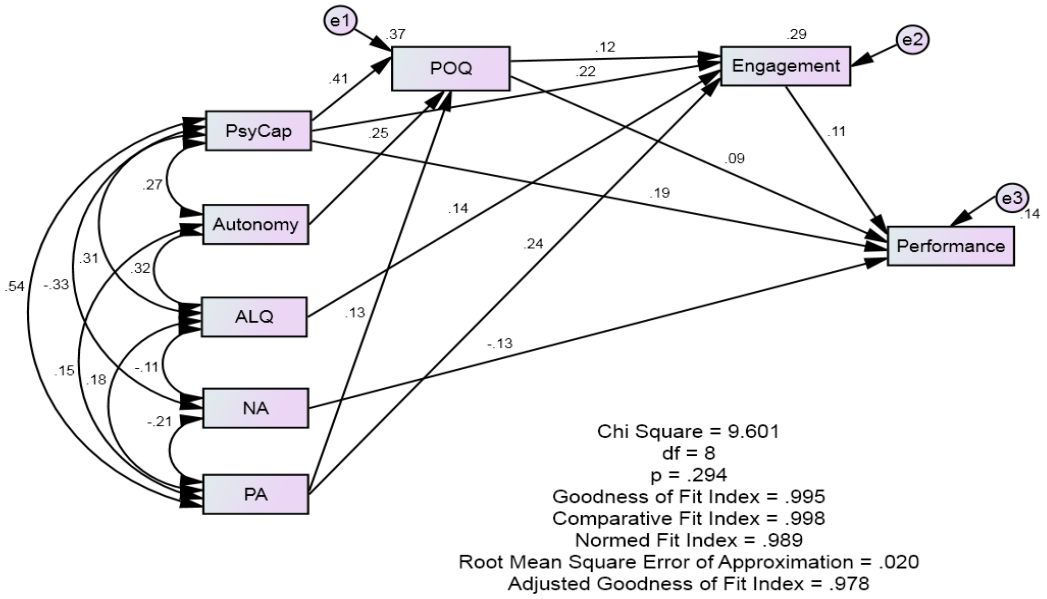

Figure 31. Mediational model of in-role performance

Figure 31 represents the proposed mediation model of in-role performance. Standardized path coefficients are shown along the paths. Multiple squared correlations are depicted along the rectangles of endogenous variables. Covariances between exogenous variables are displayed along the curved double-headed arrows. Only significant paths from controls are included in the model. Fit indices along with chi square test are also reported. The direct and indirect effects of various variables in the model are presented in Table 54.

Table 54

Standardized Path Coefficients for Direct and Indirect Effects

Criterion Variable	Predictor Variable	*β*	CI_{95}		*p*
			LL	UL	
POQ	PsyCap	.41	.313	.502	.001
Engagement	PsyCap	.22	.117	.320	.001
Performance	PsyCap	.19	.102	.293	.001
Engagement	POQ	.12	.034	.214	.008
Performance	Eng	.11	.005	.215	.040
Performance	POQ	.09	-.016	.196	.097
POQ	Aut	.25	.175	.323	.001
Engagement	ALQ	.14	.061	.227	.001
POQ	PA	.13	.041	.215	.009
Engagement	PA	.24	.161	.328	.001
Performance	NA	-.13	-.219	-.021	.018
Engagement	PsyCap through POQ	.05	.014	.097	.007
Performance	PsyCap through POQ	.047	.009	.092	.014
Performance	PsyCap through Eng	.024	.002	.060	.031
Performance	POQ through Eng	.013	.002	.038	.020
Performance	PsyCap through POQ and Eng	.068	.028	.110	.001
Engagement	Aut through POQ	.030	.009	.059	.008
Performance	Aut through POQ	.023	-.003	.053	.082
Performance	Aut through POQ and Eng	.027	.002	.055	.034
Performance	ALQ through Eng	.016	.002	.039	.021

Note. CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. Performance = in-role performance. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

Table 54 presents standardized coefficients for direct and indirect effects along with biased corrected 95% bootstrap confidence intervals and *p* values. Except for the direct effect of psychological ownership on in-role performance, all hypothesized direct paths were significant. This direct path becomes significant (β = .11, CI_{95} = .014, .206, p = .030) when path from engagement to in-role performance is constrained to zero. Thus our hypotheses 1a, 4th, 6b, 9a, and 19th were supported.

Authentic leadership and positive affectivity were positively related whereas negative affectivity was inversely related to psychological capital. This provided support to our hypothesis 4. Authentic leadership neither directly predicted psychological ownership nor in-role performance. Thus, 6a and 6c hypotheses of the present research were not supported. Work engagement fully mediated the relation between psychological ownership and in-role performance providing support for our 9c hypothesis. Similarly, except for the indirect effect of job autonomy through psychological ownership on in-role performance, all indirect paths were also significant. This suggests that multiple mediational processes are at work in the model. Our 8a hypothesis is supported as psychological ownership partially mediates between psychological capital and work engagement. It also partially mediated between psychological capital and in-role performance and thus our 8b hypothesis is supported. Psychological ownership also mediated between autonomy and engagement. Work engagement partially mediated between psychological ownership and in-role performance. Thus, our 12a hypothesis is confirmed. It also partially mediated between psychological capital and in-role performance rendering support to our 13a hypothesis and between authentic leadership and in-role performance. The net combined mediational effect of psychological ownership and work engagement between psychological capital and in-role performance was significant which confirmed our 6d hypothesis. Similarly, net combined mediational effect of psychological ownership and work engagement between autonomy and in-role performance was also significant. It should also be noted that psychological capital, psychological ownership, and work engagement explained unique variance in in-role performance above and beyond the variance explained by the control variables of positive and negative affectivity. Negative affectivity had a significant direct effect on in-role performance whereas positive affectivity had not a significant direct effect on in-role performance, however, its total effect on in-role performance was significant (β = .040, CI_{95} = .015, .070, p = .001). Thus, third hypothesis of present study is also defended.

Moderation analyses and final model of In-role Performance. As mentioned before, the second step in testing the proposed model of in-role performance comprised of moderation analyses. For this purpose, moderators and interaction terms

were added in the mediational model that has just been discussed. More specifically, social support and quantitative overload were examined as the potential moderators between engagement and in-role performance and between psychological capital and psychological ownership. Figure 32 depicts a visual display of the proposed model along with path coefficients and fit indices. Only significant paths from controls are included in the model. The model demonstrated excellent fit to the data with a non-significant chi square value of 48.23. Other measures of fit were also suggestive of good fit to the data as all of them were well above the cutoff point of .95 (CFI = .99, GFI = .99, AGFI = .96, NFI = .97). RMSEA value of .028 (p_{close} = .88) and standardized RMR value of .039 also testified to the fit of the proposed model. The direct effects, indirect effects, and moderations are presented in Table 55.

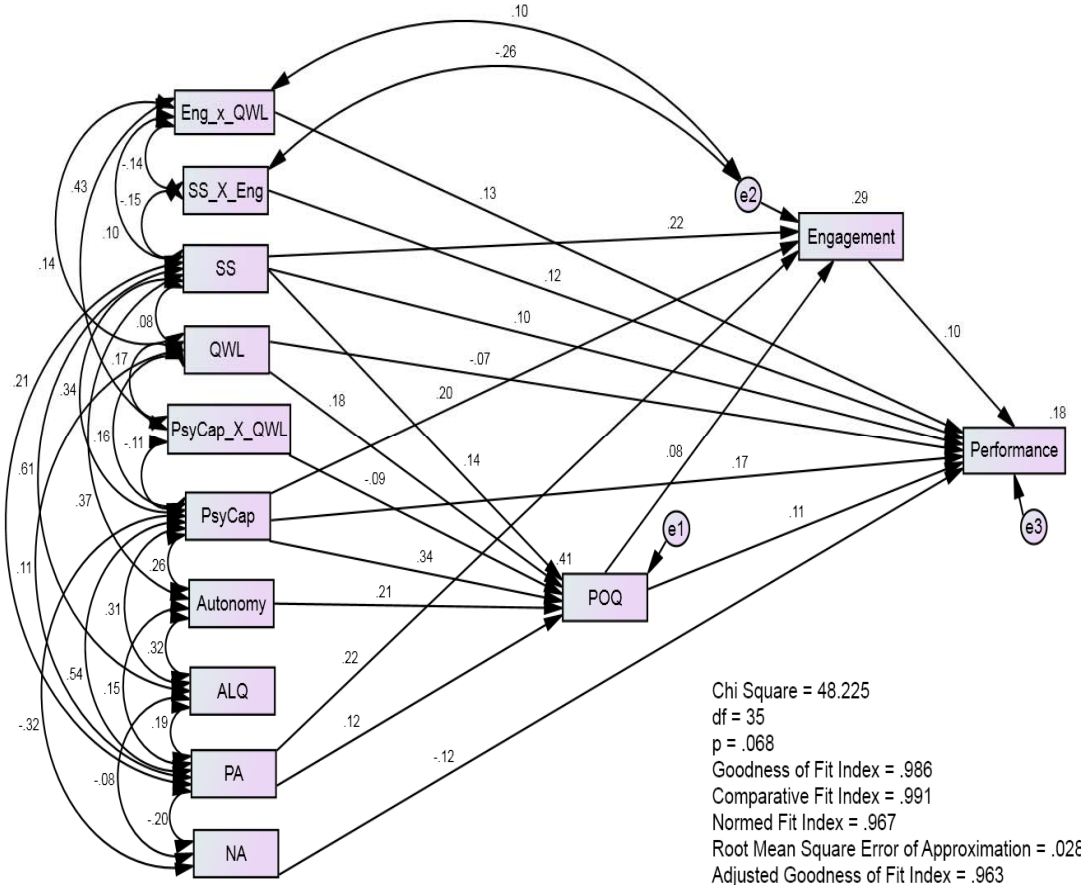

Figure 32. Final model of in-role performance

Table 55

Standardized Path Coefficients for Direct Effects, Indirect Effects, and Moderations

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
POQ	PsyCap	.34	.243	.434	.001
Eng	PsyCap	.20	.108	.288	.001
Performance	PsyCap	.17	.076	.273	.001
Eng	POQ	.08	-.005	.172	.065
Performance	Eng	.10	.001	.197	.049
Performance	POQ	.11	.008	.207	.034
POQ	Aut	.21	.128	.290	.001
POQ	PA	.12	.043	.206	.007
Eng	PA	.23	.140	.309	.001
Performance	NA	-.12	-.213	-.017	.023
POQ	SS	.14	.056	.226	.001
Eng	SS	.22	.138	.302	.001
Performance	SS	.10	.009	.189	.001
POQ	QWL	.18	.103	.268	.001
Performance	QWL	-.07	-.148	.016	.115
Performance	EngxQWL	.12	.033	.208	.014
Performance	SSxEng	.12	.017	.212	.020
POQ	PsyCapxQWL	-.09	-.197	-.005	.042
Eng	PsyCap through POQ	.027	-.001	.064	.059
Performance	PsyCap through POQ	.037	.004	.073	.028
Performance	PsyCap through Eng	.020	.001	.050	.038
Performance	POQ through Eng	.008	.000	.027	.060
Performance	PsyCap through POQ and Eng	.054	.019	.090	.004
Engagement	Aut through POQ	.017	.000	.040	.050
Performance	Aut through POQ	.019	-.001	.046	.069
Performance	Aut through POQ and Eng	.021	.001	.048	.040

Note. CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. Performance = in-role performance. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

As shown in Table 55, among the direct effects, only two effects were non-significant which included the path from psychological ownership to work

engagement and the path from quantitative overload to in-role performance. Social support predicted ownership, engagement, and in-role performance in positive direction rendering support to 23rd hypothesis of this study. Quantitative overload positively was positively related to ownership and negatively related to in-role performance. Hence, 28th hypothesis of this research was partially supported. Among the indirect paths, only two indirect paths were non-significant and it turned out that psychological ownership did not mediate between psychological capital and work engagement and work engagement did not mediate between psychological ownership and in-role performance. All other indirect paths were significant and the significant mediations have already been described in Table 54.

Moderation analyses revealed three significant moderations. These moderations have been plotted in Figure 33 to 35 for categorical interpretations. The significant path from the interaction term of psychological capital and quantitative workload to psychological ownership indicated that quantitative overload moderated between psychological capital and psychological ownership. A graphical presentation of this moderation effect is presented in Figure 33, which shows that quantitative overload dampens the positive relationship between psychological capital and psychological ownership. In other words, the positive relationship between psychological capital and psychological ownership holds more strongly when quantitative overload is low. Thus, hypothesis no. 27 of the present study is supported.

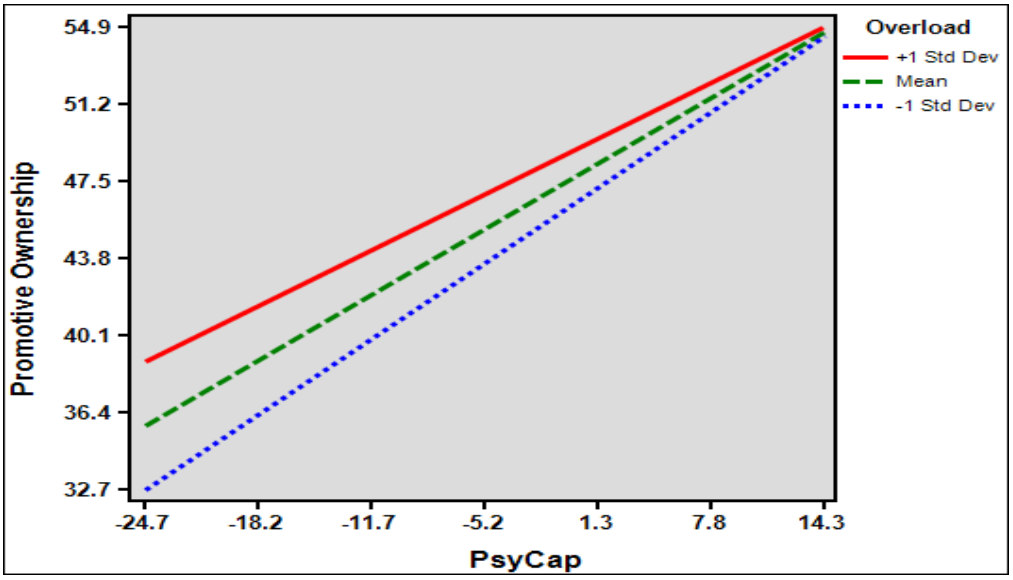

Figure 33. Quantitative overload as moderator between psychological capital and psychological ownership

The significant path from the interaction term of quantitative overload and work engagement on in-role performance provides evidence for the moderating potential of quantitative overload between work engagement and in-role performance. Figure 34 delineates this moderation and it can be seen the positive relationship between work engagement and in-role performance is strongest when quantitative overload is high. On the contrary, this positive association is substantially reduced when quantitative overload is low. Thus, our 29th hypothesis is also supported.

Figure 34. Quantitative role overload as moderator between work engagement and in-role performance**.**

Finally, social support also moderated the positive relationship between work engagement and in-role performance as evident by the significant path of interaction term of social support and work engagement on in-role performance. Figure 35 presents this moderation visually and it can be discerned that social support also strengthens the positive relationship between work engagement and in-role performance. It is apparent in Figure 35 that the positive relationship between work engagement and in-role performance holds more strongly under the condition of high social support. Thus, 15th hypothesis of this study is defended.

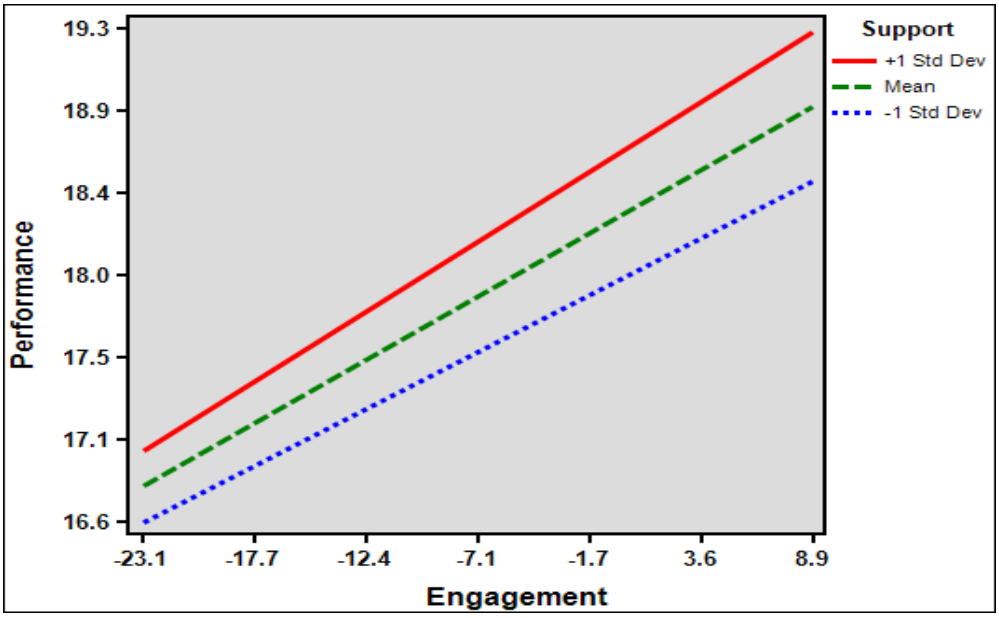

Figure 35. Social support as moderator between work engagement and in-role performance.

Models of Organizational Citizenship Behavior. The second model of this study illustrates the mediating role of psychological ownership and work engagement between psychological capital and organizational citizenship behavior. More specifically, it suggests a serial mediation where psychological capital leads to psychological ownership. This sense of ownership makes the employees engaged in their work and engaged workers are more likely to exhibit organizational citizenship behavior. This model also incorporates job demands resources model suggesting the moderating effects of social support, autonomy (job resource) and quantitative overload (job demands) on the relationship between various variables. More precisely, quantitative overload was hypothesized to moderate between psychological capital and psychological ownership; social support was hypothesized as moderating variable between authentic leadership and organizational citizenship behavior; and autonomy was supposed to be a moderating factor between authentic leadership and organizational citizenship behavior. Finally, this model examines the effect of positive and negative affectivity as control variables in relation to organizational citizenship behavior, psychological ownership, and work engagement since these personal dispositions have consistently been linked to organizational citizenship behavior in pertinent literature.

The proposed model of organizational citizenship behavior was tested in two steps. In first step, only the mediation effects were tested. In second step, interaction terms were added to see the moderating effect of proposed moderators.

Mediation model. In the present study, two nested mediation models of in-role performance were tested. Table 56 presents the fit indices of two nested models of organizational citizenship behavior and chi-square difference test.

Table 56

Model Fit Indices for Models of Organizational Citizenship Behavior (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model 1 (Parallel Mediation)										
	8.88	7	.99	.98	.99	.99	.023	.017	-	-
Model 2 (Serial Mediation)										
	4.73	6	.99	.99	1.00	.99	.000	.013	4.15*	1

*$p < .05$

Psychological ownership and work engagement were proposed to mediate the relation between psychological capital and organizational citizenship behavior in parallel fashion in model 1. This model was more constrained of the two nested models and thus no path was assumed between psychological ownership and work engagement. Model 2 assumed that the aforementioned variables mediate between psychological capital and organizational citizenship behavior in a serial fashion where psychological capital leads to psychological ownership, ownership in turn directs to work engagement, and finally engagement heads to organizational citizenship behavior. As evident by the fit indices, both the models demonstrated acceptable fit to data, however, a chi-square difference test indicated that model 2 fits the data significantly better than model 1. Thus, our proposed model of serial mediation and hypothesis no. 14 were supported.

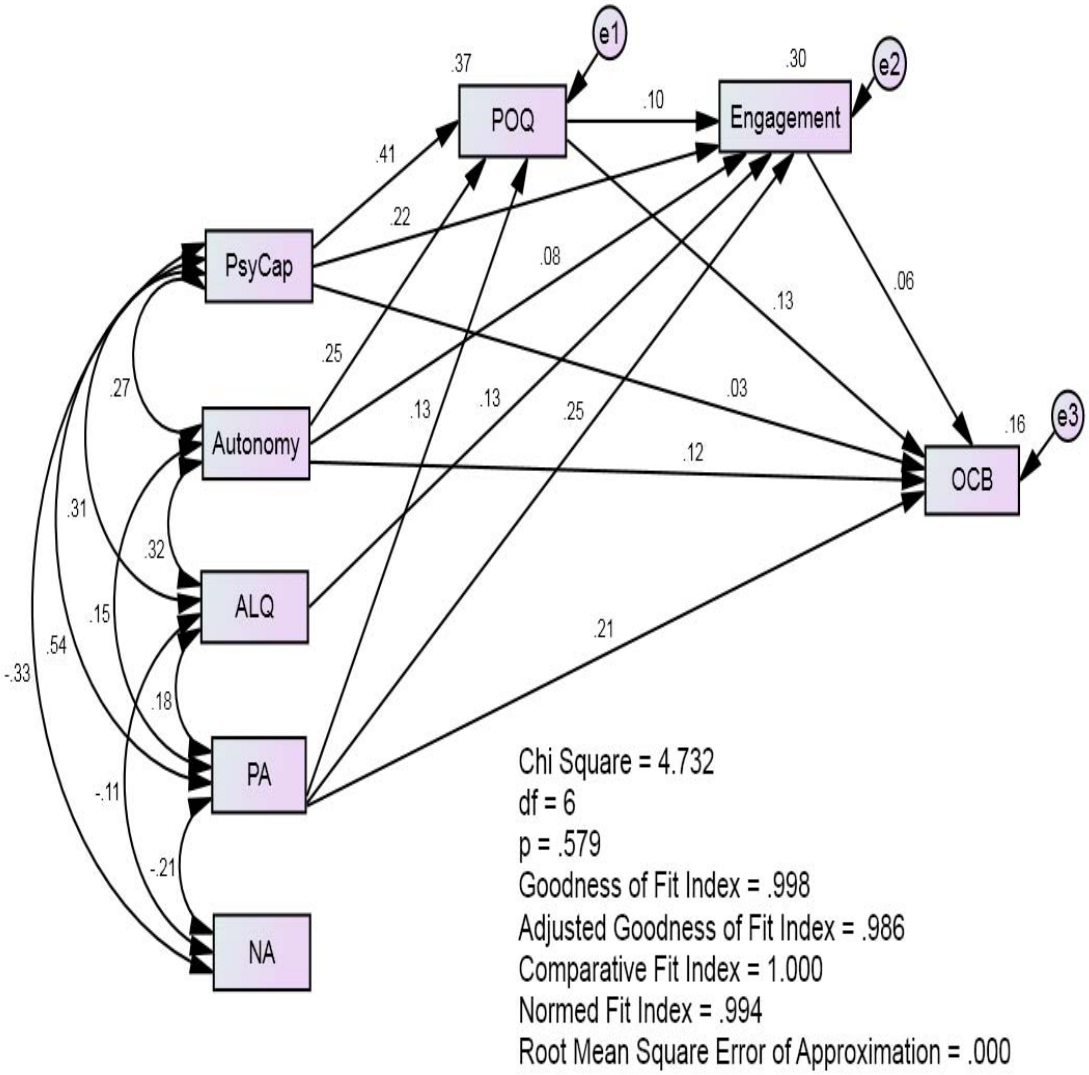

Figure 36. Mediational model of organizational citizenship behavior

Figure 36 represents the proposed mediation model of organizational citizenship behavior. Standardized path coefficients are shown along the paths. Multiple squared correlations are depicted along the rectangles of endogenous variables. Covariances between exogenous variables are displayed along the curved double-headed arrows. Only significant paths from controls are included in the model. Fit indices along with chi square test are also reported. The direct and indirect effects of various variables in the model are presented in Table 57.

Table 57

Standardized Path Coefficients for Direct and Indirect Effects

Criterion Variable	Predictor Variable	*β*	CI_{95}		*p*
			LL	UL	
POQ	PsyCap	.41	.31	.50	.001
Eng	PsyCap	.22	.11	.31	.001
OCB	PsyCap	.03	-.08	.15	.581
Eng	POQ	.10	.008	.19	.034
OCB	Eng	.06	-.04	.16	.243
OCB	POQ	.13	.03	.23	.011
POQ	Aut	.25	.18	.32	.001
Eng	Aut	.25	.01	.16	.039
OCB	Aut	.21	.03	.20	.012
Eng	ALQ	.13	.04	.21	.002
POQ	PA	.13	.04	.22	.009
Eng	PA	.25	.16	.33	.001
OCB	PA	.21	.11	.32	.001
Eng	PsyCap through POQ	.04	.004	.09	.029
OCB	PsyCap through POQ	.06	.02	.10	.007
OCB	PsyCap through Eng	.01	-.008	.04	.23
OCB	POQ through Eng	.006	-.002	.03	.156
OCB	PsyCap through POQ and Eng	.07	.02	.12	.008
Eng	Aut through POQ	.02	.003	.05	.030
OCB	Aut through POQ	.04	.01	.06	.007
OCB	Aut through Eng	.01	-.002	.02	.146
OCB	Aut through POQ and Eng	.04	.01	.07	.006
OCB	ALQ through Eng	.01	-.004	.03	.168

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. OCB = organizational citizenship behavior. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

Table 57 presents standardized coefficients for direct and indirect effects along with biased corrected 95% bootstrap confidence intervals and *p* values. Except for the direct effect of psychological capital and work engagement on organizational

citizenship behavior, all hypothesized direct paths were significant. It is imperative to note here that psychological capital and work engagement failed to explain unique variance in organizational citizenship behavior above and beyond the variance explained by the control variable of positive affectivity. Negative affectivity had no influence on organizational citizenship behavior, psychological capital, and work engagement. Thus, our third hypothesis was partially rejected. Authentic leadership did not demonstrate a direct effect on OCB. Thus, hypothesis 6c was not supported. Hypothesis 6e was rejected since authentic leadership had no direct effect on OCB. Among the indirect paths, the indirect effect of psychological capital through work engagement on organizational citizenship behavior; the indirect effect of psychological ownership through work engagement on organizational citizenship behavior; the indirect effect of job autonomy through work engagement on organizational citizenship behavior; the indirect effect of job autonomy through psychological ownership on organizational citizenship behavior; and the indirect effect of authentic leadership through work engagement on organizational citizenship behavior were non-significant. Among significant mediational paths, psychological ownership partially mediates between psychological capital and work engagement. It also partially mediated between psychological capital and organizational citizenship behavior and thus our 8c hypothesis is supported. Psychological ownership also partially mediated between autonomy and engagement and between autonomy and organizational citizenship behavior. Work engagement did not mediate between psychological capital and organizational citizenship behavior. Thus, our 13b hypothesis is not supported. It also did not mediate between psychological ownership and organizational citizenship behavior making our 12b hypothesis implausible. Work engagement also did not mediate between autonomy and organizational citizenship behavior and between authentic leadership and organizational citizenship behavior. The net combined mediational effect of psychological ownership and work engagement between psychological capital and organizational citizenship behavior was, however, significant which confirmed our 14th hypothesis. Similarly, net combined mediational effect of psychological ownership and work engagement between autonomy and organizational citizenship behavior was also significant.

It is noteworthy that psychological capital and work engagement did not predict OCB in the presence of positive affectivity as a control variable. Both of these paths, however, were significant in the absence of positive affectivity (for psychological capital to OCB β = .11, CI_{95} = .007, .214, p = .040; for work engagement to OCB β = .11, CI_{95} = .007, .207, p = .036). This provides support to 1b and 9b hypotheses of the present study. Similarly when affectivity was not taken into account, the indirect effect of promotive psychological ownership on OCB through work engagement became significant (β = .12, CI_{95} = .060, .187, p = .000); and the indirect effect of psychological capital on OCB through engagement was significant (β = .04, CI_{95} = .006, .077, p = .020). These finding provide empirical support to our hypotheses 12b and 13b respectively when positive affectivity was not taken as a control variable.

Moderation analyses and final model of Organizational Citizenship Behavior. Moderation analyses constituted the second step in testing the proposed model of organizational citizenship behavior. For this purpose, moderators and interaction terms were added in the mediational model that has just been described. More specifically, quantitative overload was supposed to moderate between psychological capital and psychological ownership; social support was hypothesized to moderate between authentic leadership and work engagement and between authentic leadership and organizational citizenship behavior; and autonomy was conceptualized as moderator between authentic leadership and organizational citizenship behavior. Figure 37 depicts a visual display of the proposed model along with path coefficients and fit indices. Only significant paths from controls are included in the model. The model demonstrated excellent fit to the data with a non-significant chi square value of 44.83 with df = 33. Other measures of fit were also reflective of an acceptable fit to the data as all of them were well above the cutoff point of .95 (CFI = .99, GFI = .99, AGFI = .96, NFI = .97). RMSEA value of .027 (p_{close} = .98) and standardized RMR value of .039 also testified to the fit of the proposed model. The direct effects, indirect effects, and moderations are presented in Table 58.

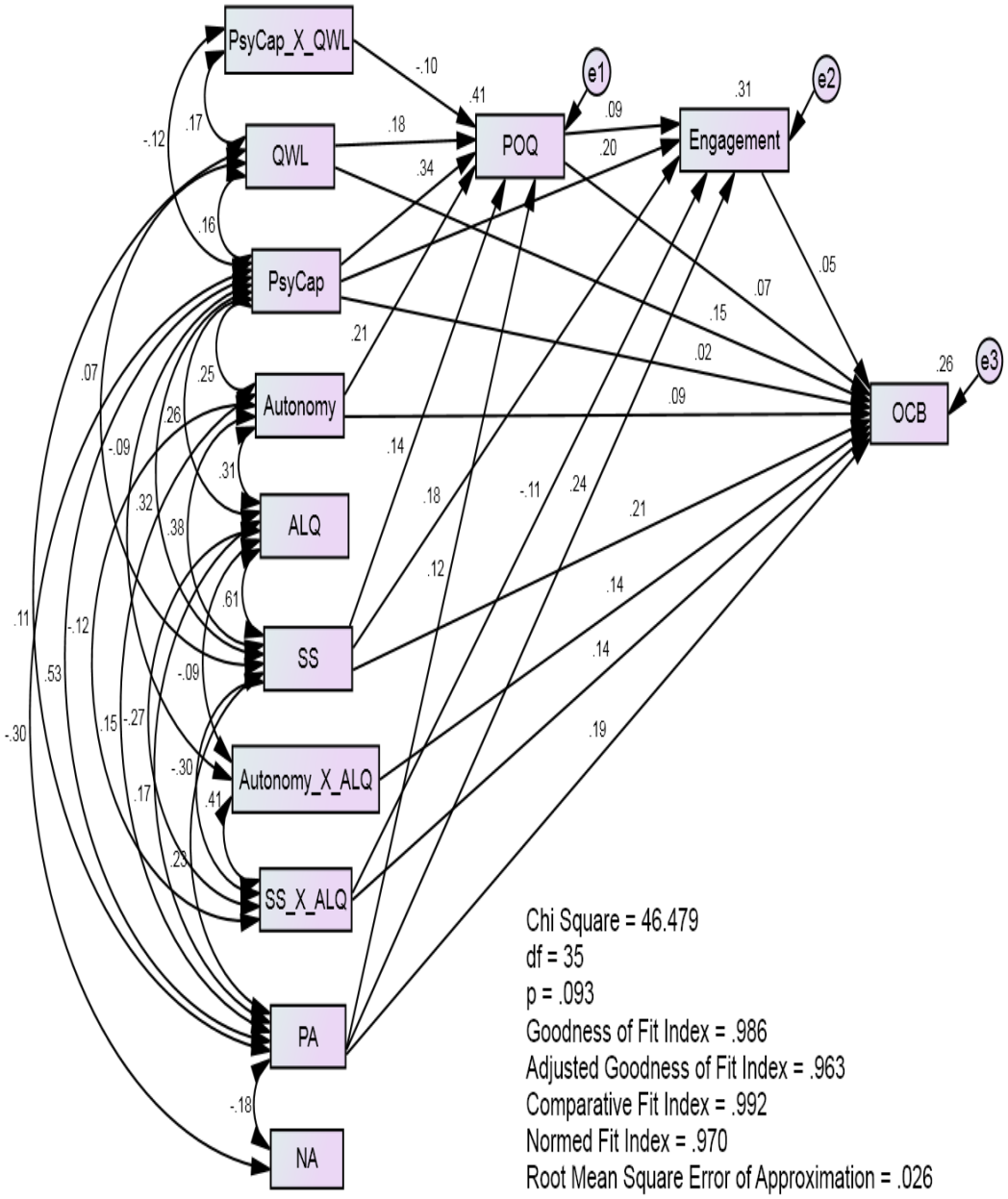

Figure 37. Final model of organizational citizenship behavior

Table 58

Standardized Path Coefficients for Direct Effects, Indirect Effects, and Moderations

Criterion Variable	Predictor Variable	*B*	CI_{95}		*p*
			LL	UL	
POQ	PsyCap	.34	.24	.43	.001
Eng	PsyCap	.20	.11	.30	.001
OCB	PsyCap	.03	-.09	.14	.647
Eng	POQ	.09	.007	.18	.031
OCB	Eng	.06	-.04	.15	.291
OCB	POQ	.07	-.03	.18	.190
POQ	Aut	.21	.13	.29	.001
OCB	Aut	.09	.004	.17	.045
Eng	ALQ	.02	-.08	.12	.698
OCB	ALQ	-.06	-.17	.049	.303
POQ	PA	.13	.04	.21	.007
Eng	PA	.24	.16	.32	.001
OCB	PA	.19	.10	.29	.001
POQ	SS	.14	.057	.23	.001
Eng	SS	.17	.07	.27	.002
OCB	SS	.25	.13	.32	.001
POQ	QWL	.18	.10	.27	.001
OCB	QWL	.14	.06	.22	.001
OCB	AutxALQ	.14	.07	.21	.001
Eng	SSxALQ	-.10	-.19	-.021	.024
OCB	SSxALQ	.14	.05	.23	.005
POQ	PsyCapxQWL	-.10	-.20	-.004	.043
Eng	PsyCap through POQ	.03	.004	.07	.022
OCB	PsyCap through POQ	.03	-.01	.06	.133
OCB	PsyCap through Eng	.01	-.01	.03	.248
OCB	POQ through Eng	.005	-.002	.022	.182
OCB	PsyCap through POQ and Eng	.04	-.005	.08	.085
Eng	Aut through POQ	.02	.002	.041	.024
OCB	Aut through POQ	.01	-.005	.04	.156
OCB	Aut through POQ and Eng	.02	-.004	.04	.128
OCB	ALQ through Eng	.001	-.004	.02	.522

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. OCB = organizational citizenship behavior. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

As shown in Table 58, among the new direct paths, social support was positively related with engagement, ownership, and OCB. Thus, hypothesis no. 22 was supported. Quantitative overload also turned out to be a positive predictor of ownership and OCB. Hence, 32nd hypothesis of the present study was not supported. The significant and non-significant indirect paths have already been described.

Moderation analyses revealed four significant moderations. These moderations have been plotted in Figure 38 to 40 for clear interpretations. The significant path from the interaction term of psychological capital and quantitative workload to psychological ownership indicated that quantitative overload moderated between psychological capital and psychological ownership. A graphical presentation of this moderation effect is already presented in Figure 33.

The significant path from the interaction term of social support and authentic leadership on work engagement provides evidence for the moderating potential of social support between work engagement and authentic leadership. Figure 38 delineates this moderation and it can be seen that social support dampens the positive relationship between work engagement and authentic leadership. It is evident in Figure 38 that the positive relationship between authentic leadership and work engagement holds more strongly in low social support condition. Alternatively, social support buffered the negative impact of lack of authentic leadership on work engagement. Thus, our 18th hypothesis is rejected.

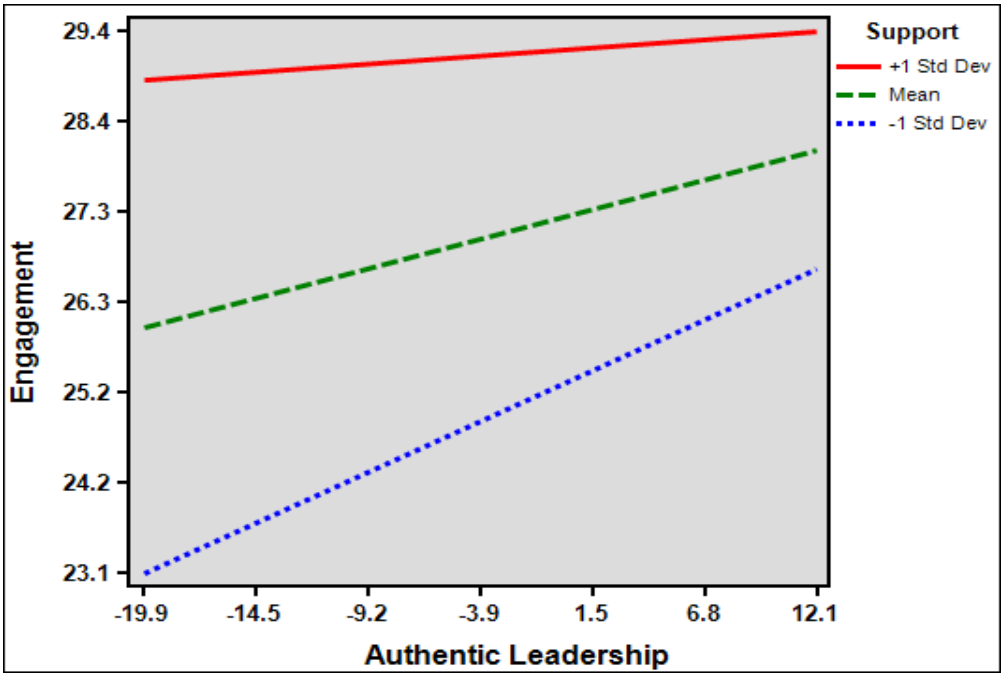

Figure 38. Social support as moderator between authentic leadership and work engagement

Social support also turned out to moderate the relationship between authentic leadership and organizational citizenship behavior. As seen in Figure 39, high perceptions of authentic leadership lead to high levels of organizational citizenship behavior when social support increases. Thus, our 16th hypothesis is supported.

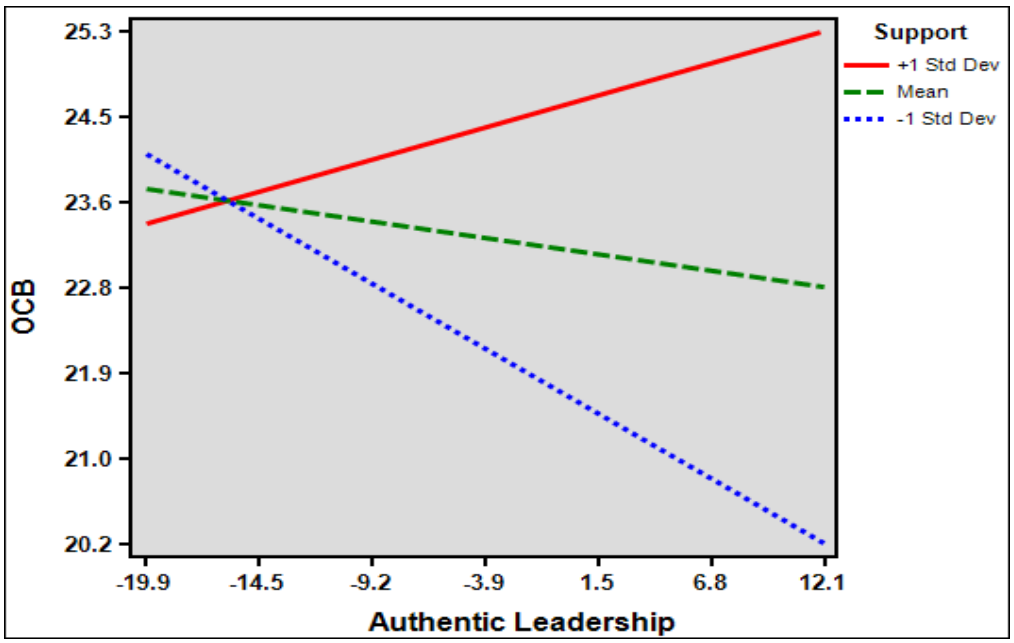

Figure 39. Social support as moderator between authentic leadership and OCB

The significant path of interaction term of job autonomy and authentic leadership to organizational citizenship behavior demonstrated fourth significant moderation of this model. As plotted in Figure 40, it is evident when job autonomy is high, the relationship between authentic leadership and organizational citizenship behavior is positive, whereas the same becomes negative when job autonomy is low. Thus, our 20th hypothesis is supported.

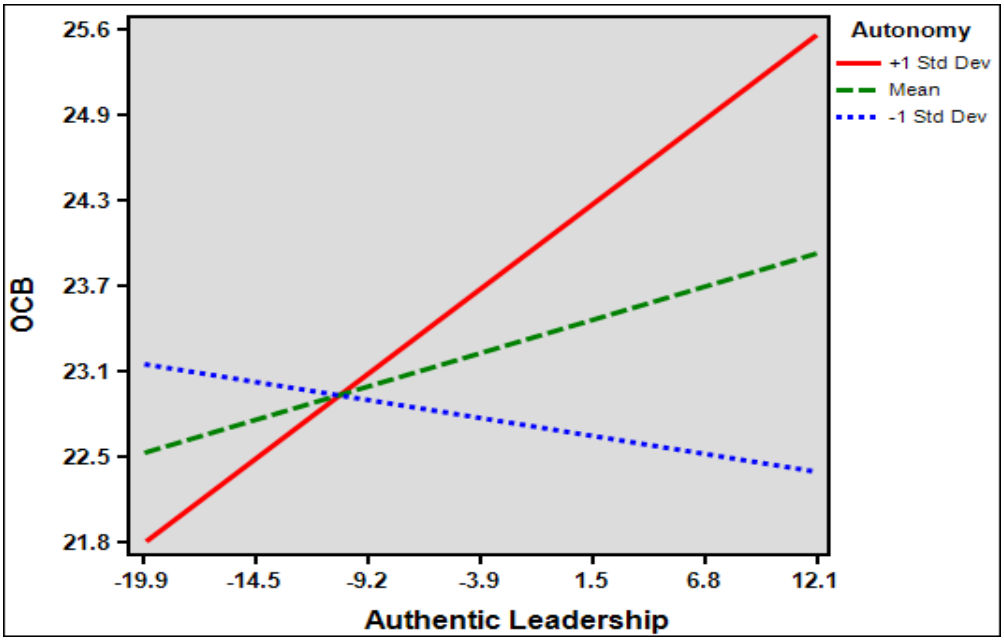

Figure 40. Job autonomy as moderator between authentic leadership and OCB

Models of Job Related Affective Wellbeing. The third model of this study illustrates the mediating role of psychological ownership and work engagement between psychological capital and job related affective wellbeing. More specifically, it suggests a serial mediation where psychological capital leads to psychological ownership. This sense of ownership makes the employees engaged in their work and an engaged workers are more likely to exhibit job related affective wellbeing. This model also incorporates job demands resources model suggesting the moderating effects of social support, job autonomy (job resources) and quantitative overload (job demands) on the relationship between work engagement and job related affective wellbeing. Finally, this model examines the effect of positive and negative affectivity as control variables in relation to job related affective wellbeing, psychological ownership, and work engagement since these personal dispositions have consistently been linked to job related affective wellbeing in pertinent literature.

The proposed model of job related affective wellbeing was tested in two steps. In first step, only the mediation effects were tested. In second step, interaction terms were added to see the moderating effect of proposed moderators.

Mediation model. In the present study, two nested mediation models of job related affective wellbeing were tested. Table 59 presents the fit indices of two nested models of job related affective wellbeing and chi-square difference test.

Table 59

Model Fit Indices for Job Related Affective Wellbeing (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model 1 (Parallel Mediation)										
	14.60	6	.99	.95	.99	.98	.054	.025	-	-
Model 2 (Serial Mediation)										
	7.73	5	.99	.97	.99	.99	.033	.017	6.87**	1

**$p < .01$

Model 1 was more constrained model where psychological ownership and work engagement were proposed to mediate the relation between psychological capital and job related affective wellbeing in parallel fashion. Thus, no path was assumed between psychological ownership and work engagement. Model 2 assumed that the aforementioned variables mediate between psychological capital and job related affective wellbeing in a serial fashion where psychological capital leads to psychological ownership, ownership in turn directs to work engagement, and finally engagement heads to job related affective wellbeing. As evident by the fit indices, both the models demonstrated acceptable fit to data, however, a chi-square difference test indicated that model 2 fits the data significantly better than model 1. Thus, our proposed model of serial mediation and 14th hypothesis are supported.

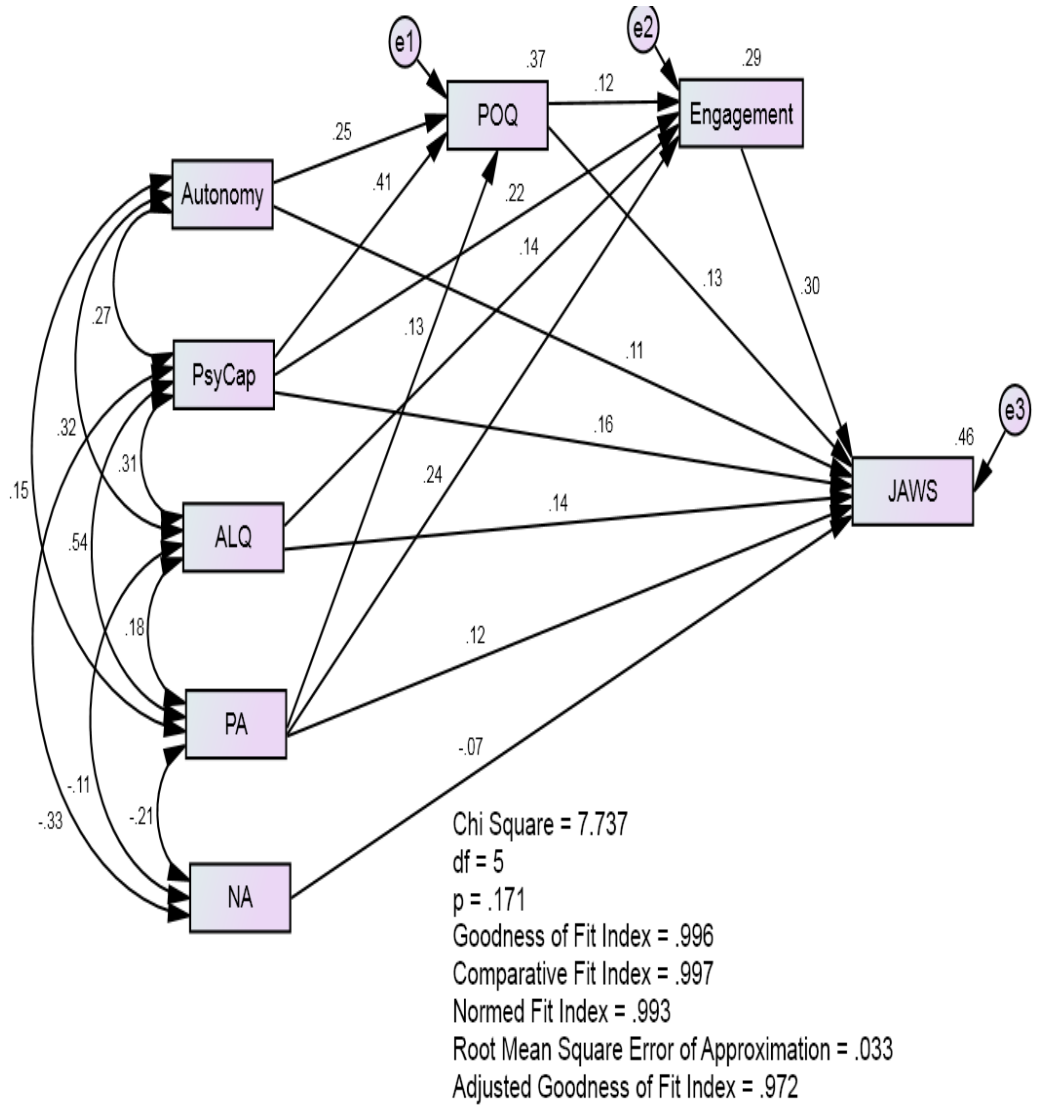

Figure 41. Mediational model of job related affective wellbeing

Figure 41 represents the proposed mediation model of job related affective wellbeing. Standardized path coefficients are shown along the paths. Multiple squared correlations are depicted along the rectangles of endogenous variables. Covariances between exogenous variables are displayed along the curved double-headed arrows. Only significant paths from controls are included in the model. Fit indices along with chi square test are also reported. The direct and indirect effects of various variables in the model are presented in Table 60.

Table 60

Standardized Path Coefficients for Direct and Indirect Effects

Criterion Variable	Predictor Variable	*B*	CI_{95}		*p*
			LL	UL	
POQ	PsyCap	.41	.313	.502	.001
Engagement	PsyCap	.22	.117	.320	.001
JAWS	PsyCap	.16	.059	.256	.003
Engagement	POQ	.12	.034	.214	.008
JAWS	Eng	.30	.223	.381	.001
JAWS	POQ	.13	.037	.227	.008
POQ	Aut	.25	.175	.323	.001
JAWS	Aut	.11	.033	.189	.005
Engagement	ALQ	.14	.061	.227	.001
JAWS	ALQ	.14	.063	.213	.001
POQ	PA	.13	.041	.215	.009
Engagement	PA	.24	.161	.328	.001
JAWS	PA	.12	.040	.207	.001
JAWS	NA	-.07	-.149	.005	.070
Engagement	PsyCap through POQ	.05	.014	.097	.007
JAWS	PsyCap through POQ	.080	.035	.134	.001
JAWS	PsyCap through Eng	.065	.034	.107	.001
JAWS	POQ through Eng	.036	.011	.067	.006
JAWS	PsyCap through POQ and Eng	.13	.084	.185	.001
Engagement	Aut through POQ	.030	.009	.059	.008
JAWS	Aut through POQ	.047	.012	.089	.007
JAWS	Aut through POQ and Eng	.042	.015	.074	.001
JAWS	ALQ through Eng	.042	.018	.076	.001

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. JAWS = job related affective wellbeing. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

Table 60 presents standardized coefficients for direct and indirect effects along with biased corrected 95% bootstrap confidence intervals and *p* values. All direct effects were significant except the path from negative affectivity to job related

affective wellbeing. Psychological capital, authentic leadership, and promotive ownership had a direct positive influence on job related affective wellbeing rendering support to hypotheses nos. 1c, 6d, and 9c respectively. All indirect paths were also significant which suggests that multiple mediational processes are at work in the model. Our 8a hypothesis is supported as psychological ownership partially mediates between psychological capital and work engagement. It also partially mediated between psychological capital, job related affective wellbeing, and thus our 8d hypothesis is also supported. Psychological ownership also mediated between autonomy and engagement. Work engagement partially mediated between psychological ownership and job related affective wellbeing. Thus, our 12c hypothesis is confirmed. It also partially mediated between psychological capital and job related affective wellbeing rendering support to our 13c hypothesis and between authentic leadership and job related affective wellbeing. The net combined mediational effect of psychological ownership and work engagement between psychological capital and job related affective wellbeing was significant which confirmed our hypothesis. Similarly, net combined mediational effect of psychological ownership and work engagement between autonomy and job related affective wellbeing was also significant. It should also be noted that psychological capital, psychological ownership, and work engagement explained unique variance in job related affective wellbeing above and beyond the variance explained by the control variables of positive and negative affectivity. Positive affectivity had a significant direct effect on job related affective wellbeing whereas negative affectivity had not a significant direct effect on job related affective wellbeing. Thus, third hypothesis of present study is also defended.

Moderation analyses and final model of Job Related Affective Wellbeing. As mentioned before, the second step in testing the proposed model of job related affective wellbeing comprised of moderation analyses. For this purpose, moderators and interaction terms were added in the mediational model that has just been discussed. More specifically, social support moderated between work engagement and job related affective wellbeing and between authentic leadership and work engagement. Job autonomy moderated between psychological ownership and job related affective wellbeing whereas quantitative overload moderated between psychological capital and job related affective wellbeing. Figure 42 depicts a visual

display of the proposed model along with path coefficients and fit indices. Only significant paths from controls are included in the model. The model demonstrated excellent fit to the data with a non-significant chi square value of 44.24 with *df* = 37. Other measures of fit were also suggestive of good fit to the data as all of them were well above the cutoff point of .95 (CFI = .99, GFI = .99, AGFI = .97, NFI = .97). RMSEA value of .020 (p_{close} = .99) and standardized RMR value of .043 also testified to the fit of the proposed model. The direct effects, indirect effects, and moderations are presented in Table 61.

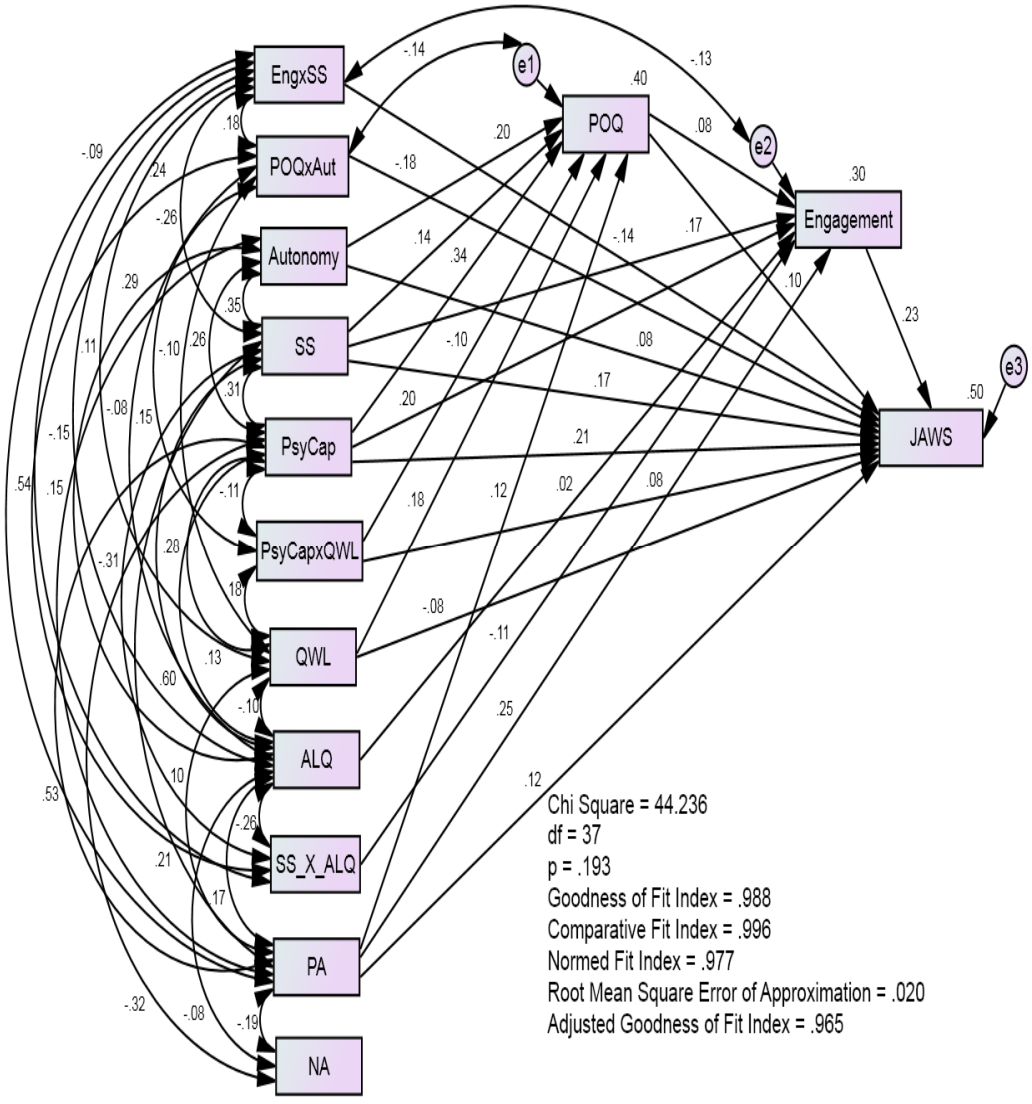

Figure 42. Final model of job related affective wellbeing

Table 61

Standardized Path Coefficients for Direct Effects, Indirect Effects, and Moderations

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
POQ	PsyCap	.34	.241	.436	.001
Eng	PsyCap	.20	.098	.286	.001
JAWS	PsyCap	.21	.128	.305	.001
Eng	POQ	.08	-.004	.165	.060
JAWS	Eng	.23	.165	.301	.001
JAWS	POQ	.10	.018	.192	.025
POQ	Aut	.20	.128	.279	.001
JAWS	Aut	.08	.008	.153	.027
POQ	PA	.12	.046	.207	.005
Eng	PA	.24	.160	.324	.001
JAWS	PA	.12	.043	.205	.002
POQ	SS	.14	.059	.223	.001
Eng	SS	.17	.071	.275	.002
JAWS	SS	.17	.090	.249	.001
POQ	QWL	.18	.106	.272	.001
JAWS	QWL	-.08	-.147	-.006	.034
JAWS	PsyCapxQWL	-.10	-.200	-.005	.041
JAWS	POQxAut	-.18	-.263	-.094	.001
Eng	SSxALQ	-.11	-.196	-.021	.022
JAWS	SSxEng	-.14	-.228	-.054	.001
Eng	PsyCap through POQ	.03	.000	.061	.048
JAWS	PsyCap through POQ	.05	.022	.076	.001
JAWS	PsyCap through Eng	.05	.015	.091	.004
JAWS	POQ through Eng	.02	.000	.042	.047
JAWS	PsyCap through POQ and Eng	.09	.047	.132	.001
Eng	Aut through POQ	.02	.000	.038	.046
JAWS	Aut through POQ	.02	.005	.045	.018
JAWS	Aut through POQ and Eng	.03	.007	.050	.008
JAWS	SSxALQ through Eng	-.03	-.050	-.006	.016

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. JAWS = job related affective wellbeing. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

As shown in Table 61, psychological ownership did not a have a direct effect on work engagement. All other direct effects were significant. Social support predicted ownership, engagement, and job related affective wellbeing in positive direction. Thus, 23rd hypothesis of this study was supported. 32nd hypothesis was partially supported as quantitative overload predicted ownership positively and job related affective wellbeing negatively. Among the indirect paths, none of the indirect effect was non-significant which indicated that multiple mediation processes are at play in the proposed model of job related affective wellbeing. These mediational processes have already been highlighted in Table 60.

Moderation analyses revealed five significant moderations. Figure 43 to 45 present visual display for these moderations and aid in understanding the processes behind these moderations. The moderating role of quantitative overload between psychological capital and psychological ownership has already been and visually depicted in Figure 33.

Quantitative overload turned out to be the moderating factor between psychological capital and job related affective wellbeing. A graphical presentation of this moderation effect is presented in Figure 43, which shows that the positive association between psychological capital and job related affective well-being is highest when quantitative overload is high. It means that teachers who were rich in psychological capital enjoyed higher levels of job related affective well-being even when they were experiencing increased amount of quantitative role overload. Thus, 30th hypothesis of the present study is not supported.

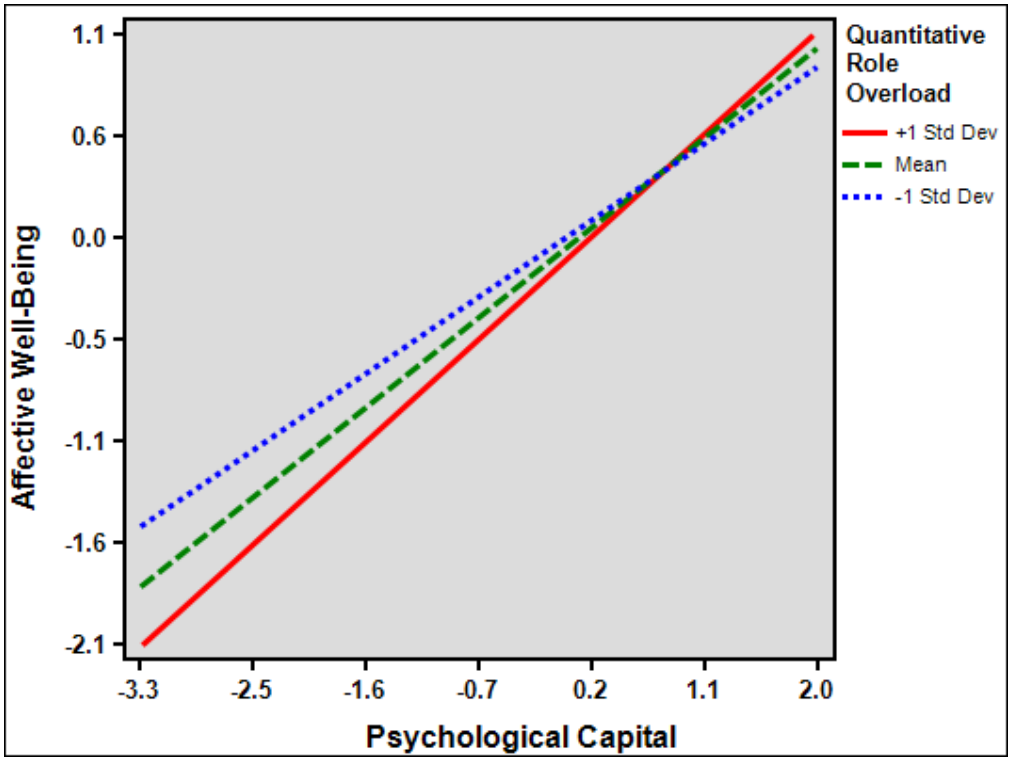

Figure 43. Quantitative role overload as moderator between psychological capital and job related affective wellbeing

Social support moderated between authentic leadership and work engagement, which has already been described and visually depicted in Figure 38. Social support also moderated between work engagement and job related affective wellbeing. This interaction is visually depicted in Figure 44 where it is discernable that social support dampens the positive relationship between work engagement and job related affective wellbeing. The positive relation between work engagement and job related affective wellbeing only holds for employees who perceived low social support in their organizations. Alternatively, social support is buffering the negative effect of lack of engagement on job related affective wellbeing. In the context of our hypothesis, this moderation also happened to be in the opposite direction, thus 17th hypothesis of this study is not supported.

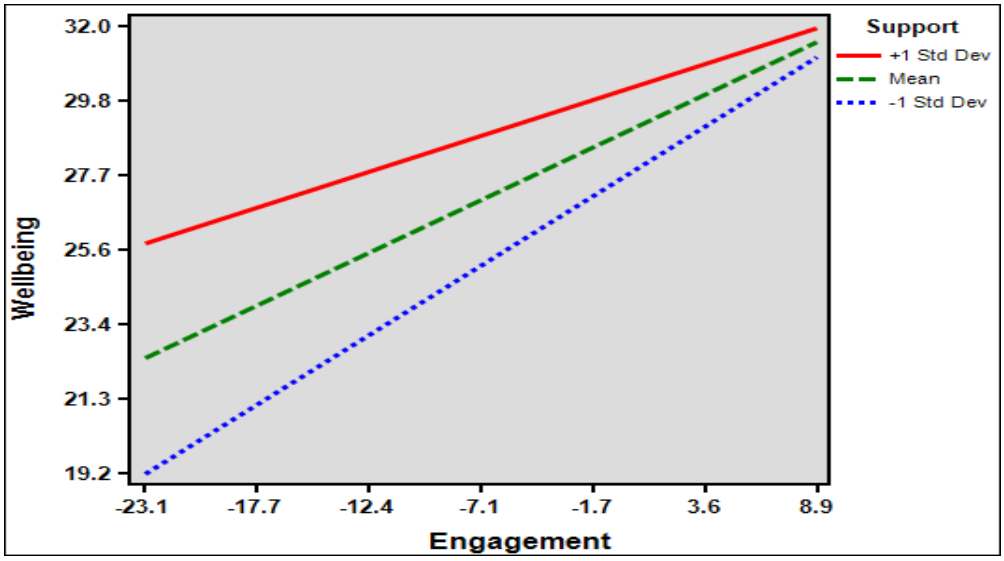

Figure 44. Social support as moderator between work engagement and job related affective wellbeing

Finally, job autonomy moderated the positive relationship between psychological ownership and job related affective wellbeing (see Figure 45). Job autonomy moderates between ownership and wellbeing such that their positive relationship is stronger when autonomy is low. In other words, it may be inferred that job autonomy moderated between lack of promotive ownership and job related affective wellbeing. The direction of this moderation is also contrary to our 21st hypothesis therefore, it was rejected.

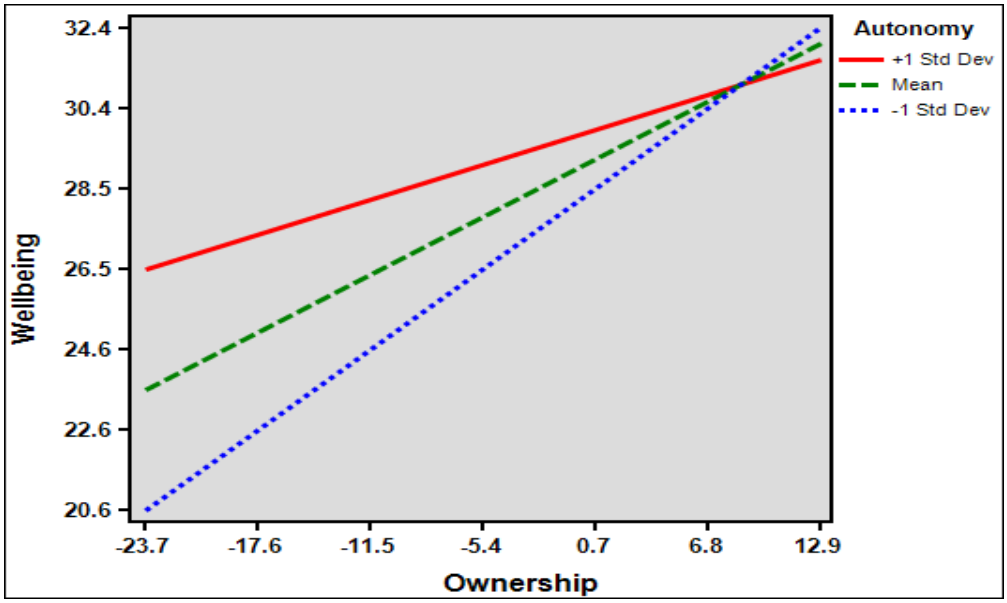

Figure 45. Job autonomy as moderator between psychological ownership and job related affective wellbeing

A very interesting finding of the present study is the moderated mediation where social support moderated the indirect effect of authentic leadership through work engagement on job related affective wellbeing. Social support demonstrated first order moderation as it moderated the path from authentic leadership to work engagement (the significant path from interaction term of authentic leadership and social support to work engagement) as well as second order moderation as it also moderated the path from work engagement to job related affective wellbeing (the significant path from interaction term of work engagement and social support to job related affective wellbeing). It turned out that the mediational effect of work engagement between authentic leadership and job related affective wellbeing holds more strongly for employees having less social support in their organization.

Models of Counter Productive Work Behaviors. The fourth model of this study illustrates the mediating role of psychological ownership and work engagement between psychological capital and counterproductive work behaviors. More specifically, it suggests a serial mediation where psychological capital leads to psychological ownership. This sense of ownership makes the employees engaged in

their work and an engaged workers are more likely to exhibit counter productive work behaviors. This model also incorporates job demands resources model suggesting the moderating effects of social support, job autonomy (job resources) and quantitative overload (job demands) on the relationship between work engagement and counterproductive work behaviors. Finally, this model examines the effect of positive and negative affectivity as control variables in relation to counter productive work behaviors, psychological ownership, and work engagement since these personal dispositions have consistently been linked to counter productive work behaviors in pertinent literature.

The proposed model of counter productive work behaviors was tested in two steps. In first step, only the mediation effects were tested. In second step, interaction terms were added to see the moderating effect of proposed moderators.

Mediation model. In the present study, two nested mediation models of counter productive work behaviors were tested. Table 62 presents the fit indices of two nested models of counter productive work behaviors and chi-square difference test.

Table 62

Model Fit Indices for Counterproductive Work Behaviors (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model 1 (Parallel Mediation)										
	17.79	9	.99	.97	.99	.98	.044	.027	-	-
Model 2 (Serial Mediation)										
	10.93	8	.99	.98	.99	.99	.027	.019	6.86**	1

**$p < .01$

Model 1 was more constrained model where psychological ownership and work engagement were proposed to mediate between psychological capital and CWB in parallel fashion. Thus, no path was assumed between psychological ownership and

work engagement. Model 2 assumed that the aforementioned variables mediate between psychological capital and counterproductive work behaviors in a serial fashion where psychological capital leads to psychological ownership; ownership in turn directs to work engagement, and finally engagement heads to counter productive work behaviors. As evident by the fit indices, both the models demonstrated acceptable fit to data, however, a chi-square difference test indicated that model 2 fits the data significantly better than model 1. Thus, our proposed model of serial mediation and 14th hypothesis were supported.

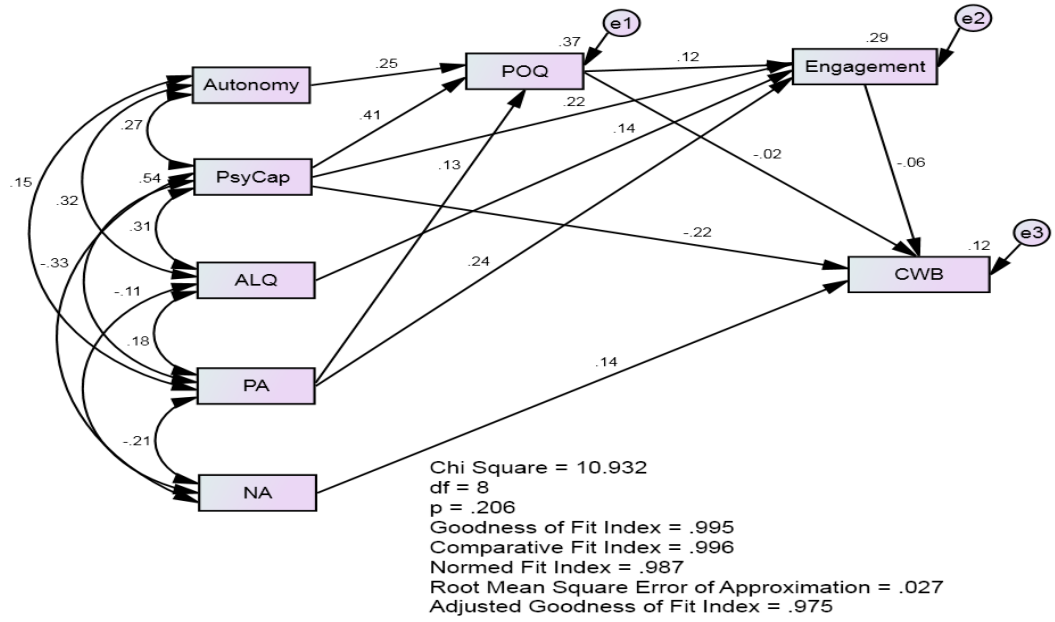

Figure 46. Mediation model of counter productive work behaviors

Figure 46 represents the proposed mediation model of counter productive work behaviors. Standardized path coefficients are shown along the paths. Multiple squared correlations are depicted along the rectangles of endogenous variables. Covariances between exogenous variables are displayed along the curved double-headed arrows. Only significant paths from controls are included in the model. Fit indices along with chi square test are also reported. The direct and indirect effects of variables in the model are presented in Table 63.

Table 63

Standardized Path Coefficients for Direct and Indirect Effects

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
POQ	PsyCap	.41	.313	.502	.001
Engagement	PsyCap	.22	.117	.320	.001
CWB	PsyCap	-.23	-.321	-.126	.001
Eng	ALQ	.14	.061	.227	.001
Engagement	POQ	.12	.034	.214	.008
CWB	Eng	-.06	-.157	.034	.210
CWB	POQ	-.02	-.114	.086	.731
POQ	Aut	.25	.175	.323	.001
Eng	ALQ	.14	.061	.227	.001
POQ	PA	.13	.041	.215	.009
Engagement	PA	.24	.161	.328	.001
CWB	NA	.14	.036	.248	.004
Engagement	PsyCap through POQ	.05	.014	.097	.007
CWB	PsyCap through POQ	-.01	-.053	.028	.523
CWB	PsyCap through Eng	-.01	-.040	.006	.182
CWB	POQ through Eng	-.007	-.026	.003	.142
CWB	PsyCap through POQ and Eng	-.02	-.067	.019	.261
Engagement	Aut through POQ	.03	.009	.059	.008
CWB	Aut through POQ	-.005	-.031	.021	.714
CWB	Aut through POQ and Eng	-.006	-.033	.018	.585
CWB	ALQ through Eng	-.009	-.028	.004	.142

Note. CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. CWB = counter productive work behaviors. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

Table 63 presents standardized coefficients for direct and indirect effects along with biased corrected 95% bootstrap confidence intervals and *p* values. All direct effects were significant except the paths from psychological ownership to work

engagement and counterproductive work behaviors. This shows that psychological ownership did not influence counter productive work behaviors. Thus, 10a hypothesis of the present study is rejected. Psychological capital predicted CWB inversely rendering support to 2a hypothesis. Authentic leadership also had no direct effect upon CWB. Thus, 7a hypothesis of present study was not supported. Among the indirect paths, our 8a hypothesis is supported as psychological ownership partially mediates between psychological capital and work engagement, however, it did not mediate between psychological capital and counterproductive work behaviors, and thus our 8e hypothesis is not supported. Psychological ownership also mediated between autonomy and engagement. Work engagement has no mediational effect on psychological ownership and counterproductive work behaviors. Thus, our 12d hypothesis is rejected. It also did not demonstrate any mediation between psychological capital and counterproductive work behaviors (hypothesis no. 13d was rejected) and between authentic leadership and counterproductive work behaviors. The net combined mediational effect of psychological ownership and work engagement between psychological capital and counterproductive work behaviors was also non-significant. Similarly, net combined mediational effect of psychological ownership and work engagement between autonomy and counterproductive work behaviors was also non-significant. It should also be noted that psychological capital and work engagement explained unique variance in counter productive work behaviors above and beyond the variance explained by the control variables of positive and negative affectivity. Positive affectivity had no direct effect on counter productive work behaviors whereas negative affectivity did have a significant direct effect on counter productive work behaviors. Thus, third hypothesis of present study is fortified.

Moderation analyses and final Model of Counter Productive Work Behaviors. As mentioned before, the second step in testing the proposed model of counter productive work behaviors comprised of moderation analyses. For this purpose, moderators and interaction terms were added in the mediational model that has just been discussed. More specifically, social support between authentic leadership and work engagement whereas quantitative overload moderated between psychological capital and psychological ownership. Figure 47 depicts a visual display of the proposed model along with path coefficients and fit indices. Only significant

paths from controls are included in the model. The model demonstrated excellent fit to the data with a non-significant chi square value of 32.33 with *df* = 28. Other indices of fit were also indicative of good fit to the data as all of them were well above the cutoff point of .95 (CFI = .99, GFI = .99, AGFI = .97, NFI = .98). RMSEA value of .018 (p_{close} = .99) and standardized RMR value of .032 also testified to the fit of the proposed model. The direct effects, indirect effects, and moderations are presented in Table 64.

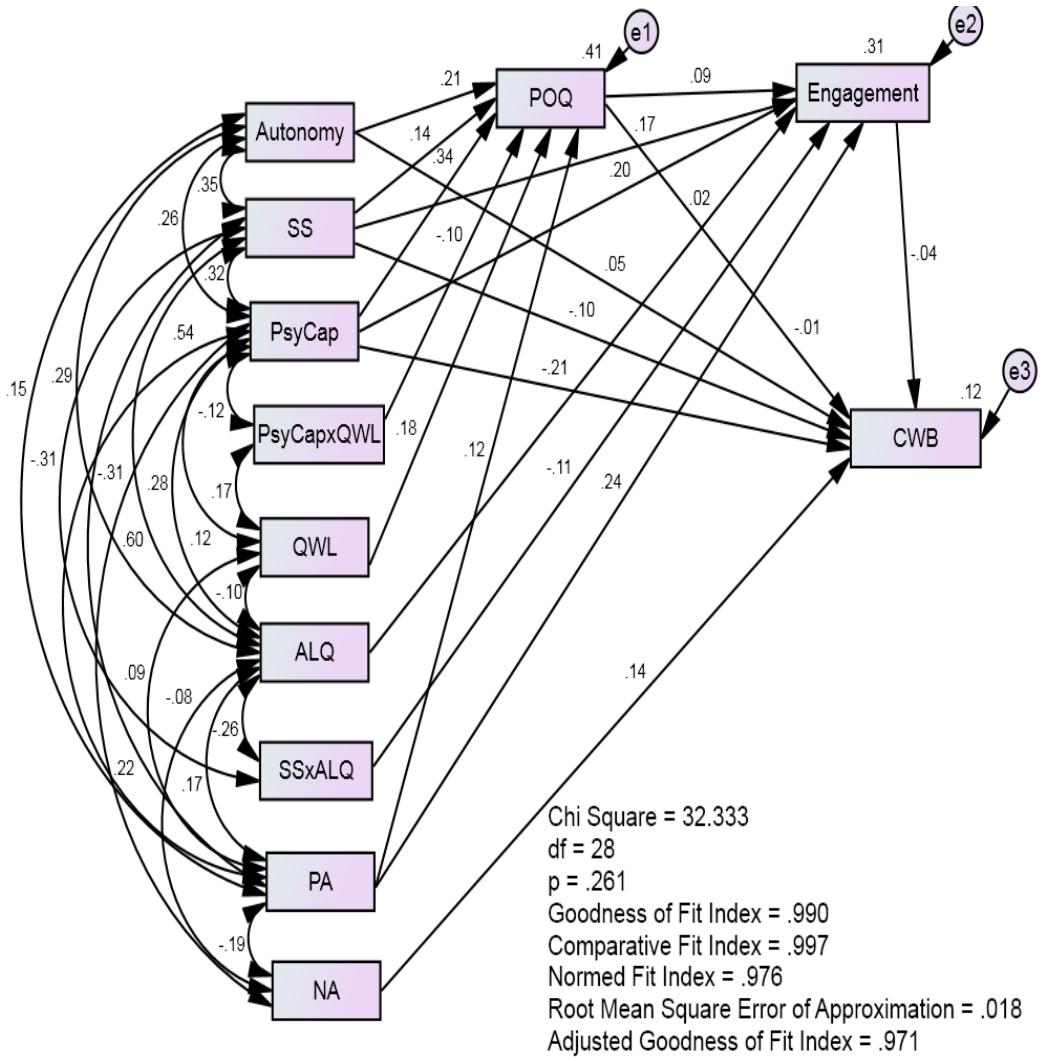

Figure 47. Final model of counter productive work behaviors

Table 64

Standardized Path Coefficients for Direct Effects, Indirect Effects, and Moderations

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
POQ	PsyCap	.34	.243	.434	.001
Eng	PsyCap	.21	.109	.300	.001
CWB	PsyCap	-.21	-.304	-.101	.001
Eng	ALQ	.02	-.081	.119	.700
Eng	POQ	.09	.007	.175	.031
CWB	POQ	-.01	-.115	.094	.799
CWB	Eng	-.04	-.131	.054	.400
POQ	Aut	.21	.129	.291	.001
CWB	Aut	.05	-.039	.133	.258
POQ	PA	.12	.046	.207	.005
Eng	PA	.24	.160	.324	.001
CWB	NA	.14	.032	.253	.012
POQ	SS	.14	.056	.225	.001
Eng	SS	.17	.068	.269	.002
CWB	SS	-.10	.176	-.023	.014
POQ	QWL	.18	.106	.272	.001
POQ	PsyCapxQWL	-.10	-.199	-.004	.043
Eng	SSxALQ	-.11	-.193	-.021	.024
Eng	PsyCap through POQ	.03	.000	.061	.048
CWB	PsyCap through POQ	-.01	-.053	.024	.415
CWB	PsyCap through Eng	-.009	-.033	.010	.342
CWB	POQ through Eng	-.004	-.019	.003	.233
CWB	PsyCap through POQ and Eng	.01	-.037	.010	.319
Eng	Aut through POQ	.02	.002	.041	.025
CWB	Aut through POQ	-.003	-.025	.019	.793
CWB	Aut through POQ and Eng	-.003	-.026	.018	.732
CWB	ALQ through Eng	.001	-.013	.003	.453

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. CWB = counter productive work behaviors. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

As shown in Table 64, psychological ownership, work engagement, and job autonomy did not predict counter productive work behaviors and authentic leadership had no direct effect on work engagement. All other direct effects were significant. Social support positively predicted ownership and engagement and inversely predicted CWB; rendering support to 23rd and 24th hypotheses respectively. Quantitative overload had no relationship with CWB, thus 32nd hypothesis of this study could not be defended. Among the indirect paths, significant mediations and non-significant indirect paths have already been discussed in mediational model of counter productive work behaviors.

Moderation analyses revealed two significant moderations. Quantitative overload moderated between psychological capital and psychological ownership whereas social support moderated between lack of authentic leadership and engagement. Both of these interactions have already been discussed and are visually depicted in Figures 33 and 38 respectively.

Models of Burnout. The fifth model of this study illustrates the mediating role of psychological ownership and work engagement between psychological capital and burnout. More specifically, it suggests a serial mediation where psychological capital leads to psychological ownership. This sense of ownership makes the employees engaged in their work and engaged workers are less likely to be a prey to burnout. This model also incorporates job demands resources model suggesting the moderating effects of social support, job autonomy (job resources) and quantitative overload (job demands) on the relationship between variables of the proposed model. Finally, this model examines the effect of positive and negative affectivity as control variables in relation to burnout, psychological ownership, and work engagement since these personal dispositions have consistently been linked to burnout in pertinent literature.

The proposed model of burnout was tested in two steps. In first step, only the mediation effects were tested. In second step, interaction terms were added to see the moderating effect of proposed moderators.

Mediation model. In the present study, two nested mediation models of burnout were tested. Table 65 presents the fit indices of two nested models of burnout and chi-square difference test.

Table 65

Model Fit Indices for Burnout (N = 500)

Models	χ^2	*df*	Fit Indices						$\Delta\chi^2$	Δdf
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*		
Model 1 (Parallel Mediation)										
	8.75	7	.99	.98	.99	.99	.022	.018	-	-
Model 2 (Serial Mediation)										
	4.60	6	.99	.99	1.00	.99	.00	.014	4.15*	1

**$p < .01$

Model 1 was more constrained model where psychological ownership and work engagement were proposed to mediate the relation between psychological capital and burnout in parallel fashion. Thus, no path was assumed between psychological ownership and work engagement. Model 2 assumed that the aforementioned variables mediate between psychological capital and burnout in a serial fashion where psychological capital leads to psychological ownership, ownership in turn directs to work engagement, and finally engagement heads to burnout. As evident by the fit indices, both the models demonstrated acceptable fit to data, however, a chi-square difference test indicated that model 2 fits the data significantly better than model 1. Thus, our proposed model of serial mediation and 14th hypothesis were supported.

Figure 48 represents the proposed mediation model of burnout. Standardized path coefficients are shown along the paths. Multiple squared correlations are depicted along the rectangles of endogenous variables. Covariances between exogenous variables are displayed along the curved double-headed arrows. Only significant paths from controls are included in the model. Fit indices along with chi

square test are also reported. The direct and indirect effects of variables in the model are presented in Table 66.

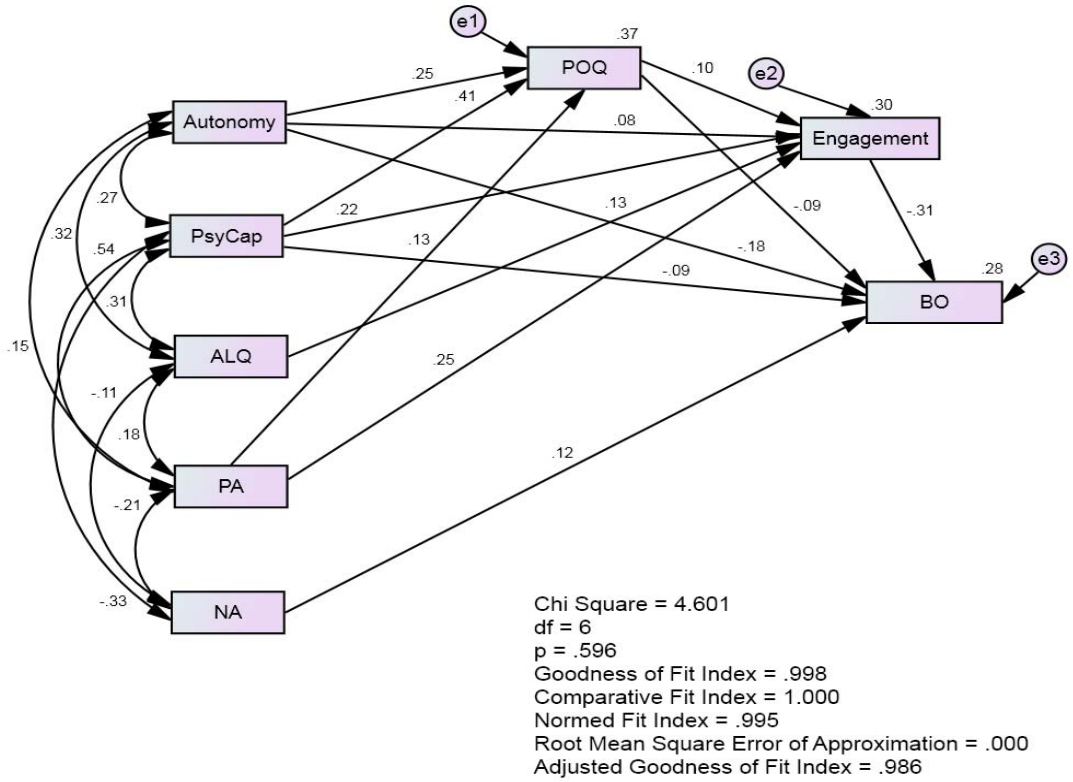

Figure 48. Mediation model of burnout

Table 66

Standardized Path Coefficients for Direct and Indirect Effects

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
POQ	PsyCap	.41	.313	.502	.001
Engagement	PsyCap	.22	.117	.320	.001
BO	PsyCap	-.09	-.182	.009	.001
Eng	ALQ	.13	.042	.213	.002
Engagement	POQ	.097	.008	.194	.034
BO	Eng	-.31	-.381	-.233	.001
BO	POQ	-.09	-.188	.024	.107
POQ	Aut	.25	.175	.323	.001
BO	Aut	-.18	-.261	-.092	.001
Eng	ALQ	.13	.042	.213	.002
POQ	PA	.13	.042	.213	.009
Engagement	PA	.25	.163	.330	.001
BO	NA	.12	.036	.204	.007
Engagement	PsyCap through POQ	.04	.004	.089	.029
BO	PsyCap through POQ	-.061	-.171	-.065	.001
BO	PsyCap through Eng	-.068	-.107	-.035	.001
BO	POQ through Eng	-.037	-.062	-.004	.028
BO	PsyCap through POQ and Eng	-.12	-.171	-.065	.001
Eng	Aut through POQ	.02	.003	.053	.030
BO	Aut through POQ	-.05	-.091	-.016	.005
BO	Aut through Eng	-.02	-.052	-.002	.034
BO	Aut through POQ and Eng	-.05	-.091	-.016	.004
BO	ALQ through Eng	-.04	-.070	-.013	.002

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. BO = burnout. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

Table 66 presents standardized coefficients for direct and indirect effects along with biased corrected 95% bootstrap confidence intervals and *p* values. All direct effects were significant except the paths from psychological ownership to burnout.

However, this path becomes significant (β = -.13, CI_{95} = -.234, -.007, p = .035) when path from engagement to burnout is constrained to zero. Thus, 10b hypothesis of this study is supported. Psychological capital inversely predicted burnout and yielded support for 2b hypothesis of this study. Autonomy predicted ownership positively and burnout negatively. Thus, hypotheses 19 and 36 are augmented. Engagement was inversely related to burnout, which showed support for 35th hypothesis of this work. Psychological capital, work engagement, and psychological ownership explained unique variance in burnout after affectivity was controlled. Thus, third hypothesis of this research is also supported. No direct effect of authentic leadership on burnout was observed which suggests that 7b hypothesis of this study is not defendable. All indirect paths were significant suggesting multiple mediational processes were at work in the model. Our 8f and 12e hypotheses are supported as psychological ownership and work engagement mediated between psychological capital burnout. Similarly, their net combined indirect effect was also significant suggesting that bot variables in combination paly a mediational role between psychological capital and burnout. Thus, our 14th hypothesis is further augmented. Psychological ownership mediated between autonomy and burnout. Psychological ownership mediated between psychological capital and work engagement (18th hypothesis is supported) and between autonomy and work engagement. Similarly work engagement fully mediated between psychological ownership and burnout (12e hypothesis is supported) and between authentic leadership and burnout. Both psychological ownership and work engagement individually as well as in combination also mediated between autonomy and burnout. It should also be noted that psychological capital and work engagement explained unique variance in burnout above and beyond the variance explained by the control variables of positive and negative affectivity. Positive affectivity had no direct effect on burnout whereas negative affectivity did have a significant direct effect on burnout. Thus, third hypothesis of the present study is also fortified.

Moderation analyses and final Model of Burnout. As mentioned before, the second step in testing the proposed model of burnout comprised of moderation analyses. For this purpose, moderators and interaction terms were added in the mediational model that has just been discussed. More specifically, social support

moderated between authentic leadership and work engagement; psychological capital moderated between quantitative overload and psychological ownership; quantitative overload moderated between authentic leadership and burnout; and autonomy moderated between work engagement and burnout.

Figure 49 depicts a visual display of the proposed model along with path coefficients and fit indices. Only significant paths from controls are included in the model. The model demonstrated excellent fit to the data with a non-significant chi square value of 58.65 with $df = 45$. Other measures of fit were also suggestive of good fit to the data as all of them were well above the cutoff point of .95 (CFI = .99, GFI = .98, AGFI = .96, NFI = .96). RMSEA value of .025 ($p_{close} = .99$) and standardized RMR value of .048 also testified to the fit of the proposed model. The direct effects, indirect effects, and moderations are presented in Table 67.

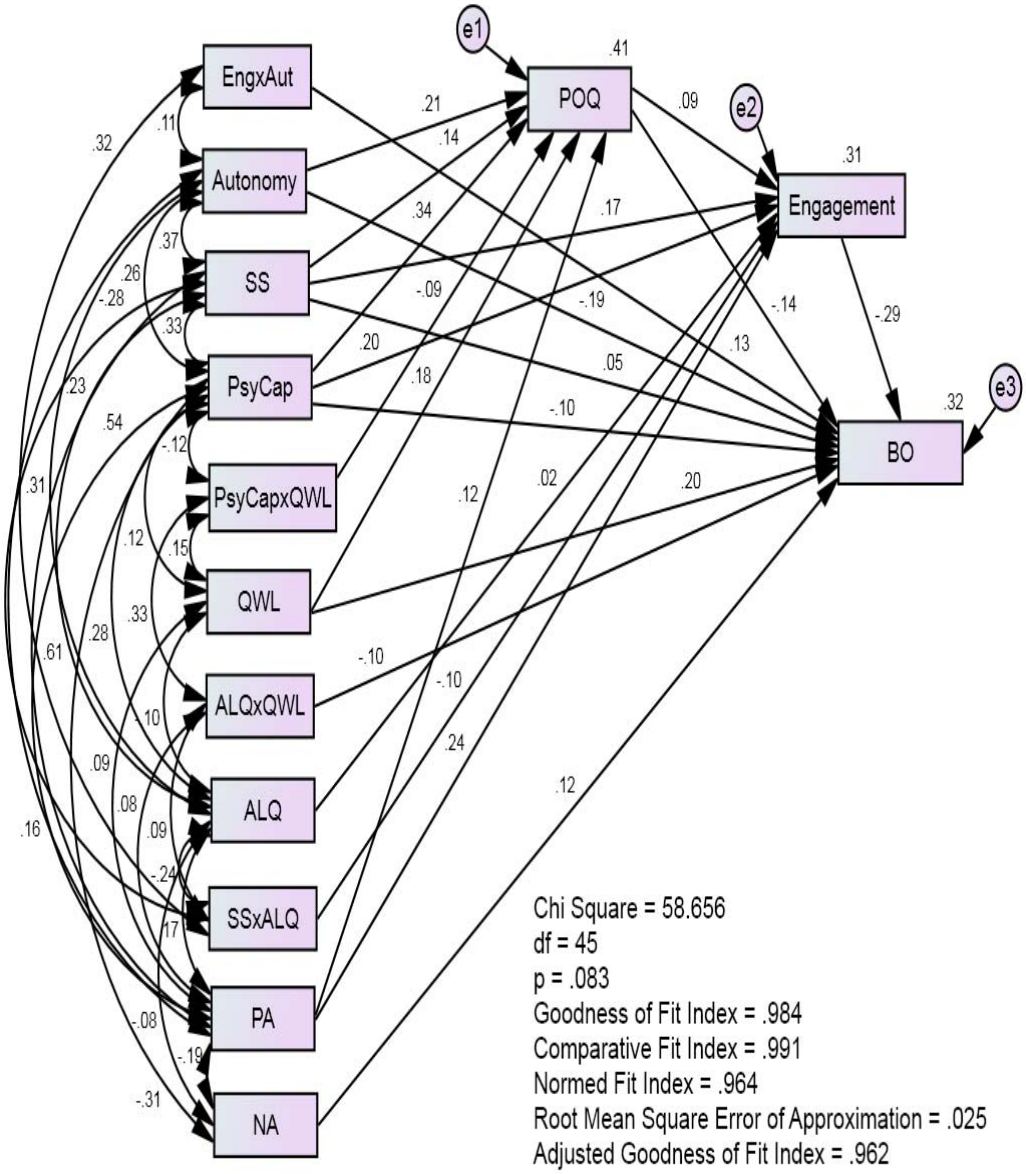

Figure 49. Final model of burnout

Table 67

Standardized Path Coefficients for Direct Effects, Indirect Effects, and Moderations

Criterion Variable	Predictor Variable	*β*	CI_{95}		*p*
			LL	UL	
POQ	PsyCap	.40	.242	.432	.001
Eng	PsyCap	.20	.109	.300	.001
BO	PsyCap	-.10	-.184	-.001	.046
Eng	ALQ	.02	-.082	.120	.704
Eng	POQ	.09	.007	.176	.031
BO	POQ	-.15	-.240	-.046	.006
BO	Eng	-.29	-.366	-.221	.001
POQ	Aut	.21	.130	.293	.001
BO	Aut	-.19	-.272	-.100	.001
POQ	PA	.12	.042	.205	.007
Eng	PA	.24	.158	.323	.001
BO	NA	.12	.034	.194	.008
POQ	SS	.14	.056	.226	.001
Eng	SS	.17	.068	.270	.001
BO	SS	.05	-.035	131	.225
POQ	QWL	.18	.103	.269	.001
BO	QWL	.21	.140	.275	.001
POQ	PsyCapxQWL	-.10	-.196	-.004	.043
Eng	SSxALQ	-.11	-.191	-.021	.024
BO	EngxAut	.13	.049	.196	.001
BO	ALQxQWL	-.10	-.178	-.018	.017
Eng	PsyCap through POQ	.03	.004	.067	.022
BO	PsyCap through POQ	-.065	-.113	-.028	.001
BO	PsyCap through Eng	-.060	-.095	-.031	.001
BO	POQ through Eng	-.026	-.054	-.003	.025
BO	PsyCap through POQ and Eng	-.12	-.174	-.068	.001
Eng	Aut through POQ	.02	.002	.041	.024
BO	Aut through POQ	-.03	-.060	-.011	.003
BO	Aut through POQ and Eng	-.036	-.067	-.014	.002
BO	ALQ through Eng	-.005	-.034	-.024	.689
BO	PsyCapxQWL through POQ	.014	.001	.034	.028
BO	PsyCapxQWL through POQ and Eng	.016	.002	.038	.028
BO	SSxALQ through Eng	.031	.006	.061	.020

Note: CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. BO = burnout. ALQ = authentic leadership. NA = negative affectivity. PA = positive affectivity.

As shown in Table 67, among the new direct effects, social support had non-significant effect on burnout suggesting that 24th hypothesis of this study is overruled. Social support however, remained positively associated with psychological ownership and work engagement providing support for 23rd hypothesis. As predicted, quantitative overload turned out to be a positive predictor of burnout rendering support to hypothesis 32. Among the indirect paths, significant mediations and non-significant indirect paths have already been discussed in mediational model of burnout.

Moderation analyses revealed an interesting pattern of moderations. Figure 50 to 51 present visual display for these moderations. Quantitative role overload moderated between authentic leadership and burnout. As depicted in Figure 50, it can be discerned that the negative relationship between authentic leadership and burnout is strongest when quantitative overload is high. Alternatively, it can be inferred that burnout is lowest when both authentic leadership and quantitative role overload are low. Thus, 31st hypothesis of this research is supported.

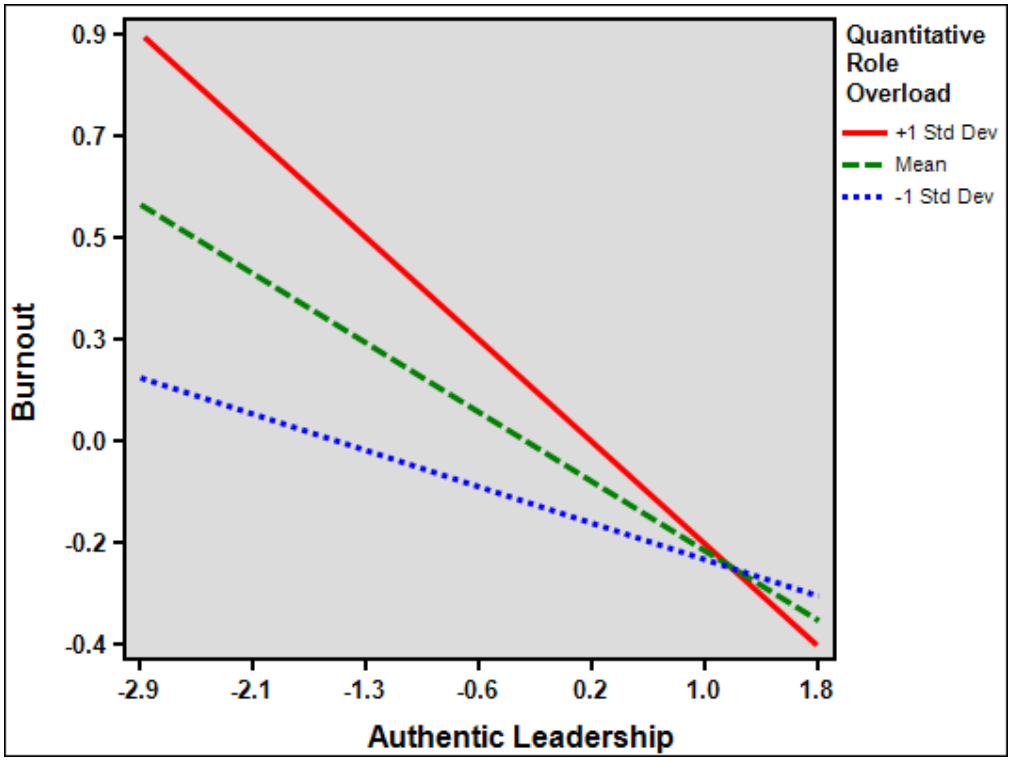

Figure 50. Quantitative role overload as moderator between authentic leadership and burnout

Another important moderating influence in the present model was of job autonomy, which moderated the negative relationship between work engagement and burnout by stifling their relationship. As evident in Figure 51, the negative relationship between work engagement and burnout holds more strongly when job autonomy is low. This yielded an empirical support for 22nd hypothesis of this study.

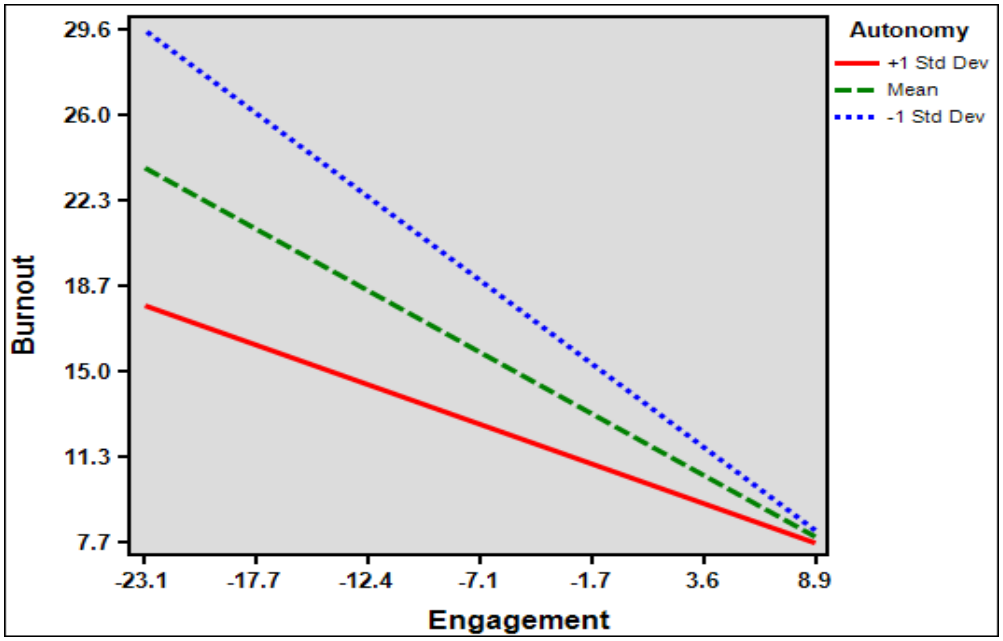

Figure 51. Job autonomy as moderator between work engagement and burnout

Besides these new interactions, social support moderated between authentic leadership and wok engagement (see Figure 38) whereas quantitative role overload moderated between psychological capital and promotive ownership (see Figures 33). Both of these interactions have already been discussed.

From a scrutiny of indirect effects, it has been observed that there had been two instances of moderated mediation in the current model. Quantitative overload moderated the indirect effect of psychological capital on burnout through psychological ownership and work engagement. By constraining the path from psychological ownership to engagement to zero, it became evident that this was the first order moderation where quantitative overload actually moderated the indirect path from psychological capital to burnout through psychological ownership thus making the complete indirect path moderated. It turned out that the mediational effect of psychological ownership between psychological capital and burnout was stronger when quantitative overload is high as compared to a situation where quantitative overload is low.

Similarly, social support moderated the mediation of work engagement between authentic leadership and burnout. The mediational effect of work engagement between authentic leadership and burnout is stronger if high social support prevailed in the organization in contrast with a situation where perceived social support in the organization is low.

Psychological Ownership in the Context of Job Demands-Resources Model

The final model of the present work aimed at empirical testing of job demands-resources model in the context of positive construct such as psychological capital and psychological ownership. More specifically, it was tested how job demands and resources may influence the relationship of positive personal resources of psychological capital and psychological ownership with work engagement and burnout. Job demands and resources have been tested as potential mediators of the aforementioned relationships. Psychological ownership had a special role in the proposed model as it was hypothesized that preventive psychological ownership (territoriality) would lead to burnout whereas promotive psychological ownership would predict work engagement.

The proposed model of job demands and resources was tested in two steps. In first step, the direct effects of personal resources were examined in relation to burnout and work engagement. In second step, job demands and resources were introduced as mediators of the relationship between territoriality and burnout and between promotive ownership and work engagement respectively.

Direct effects of positive personal resources on burnout and engagement. The first model of job demands and resources was developed in order to see the direct effects of psychological capital, promotive ownership, and territoriality on burnout and work engagement. It was hypothesized that territoriality would positively relate to burnout and negatively relate to engagement. Similarly, promotive ownership and psychological capital would have positive relationships with engagement and negative relationships with burnout. Figure 52 visually presents this proposed model.

Standardized path coefficients are shown along the paths. Multiple squared correlations are depicted along the rectangles of endogenous variables. Covariances between exogenous variables are displayed along the curved double-headed arrows. Fit indices along with chi square test are also reported. Table 68 presents standardized path coefficients of direct effects. The model demonstrated an excellent fit with a non-significant chi square value of 2.63 (p = .268). Other fit indices were also above the cutoff criteria (CFI = .99, GFI = .99, AGFI = .98, NFI = .99). RMSEA value of .025 (p_{close} = .62) and standardized RMR value of .014 also testified to the fit of the proposed model.

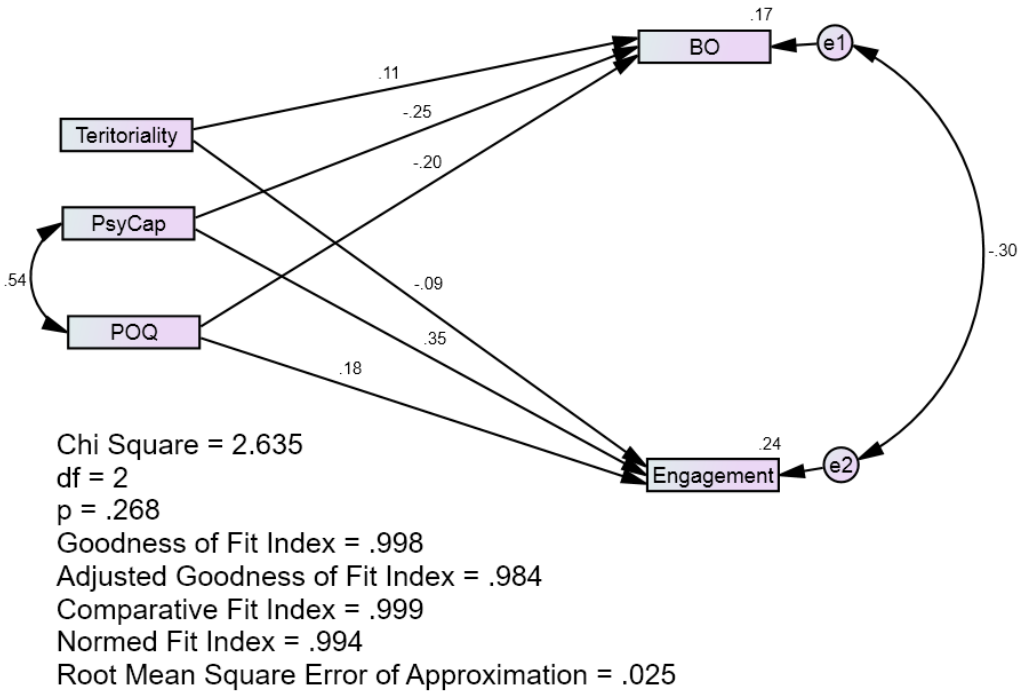

Figure 52. Direct effects of personal resources

Table 68

Standardized Path Coefficients for Direct and Indirect Effects of Positive Personal Resources on Engagement and Burnout

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
BO	PsyCap	-.25	-.356	-.143	.001
Eng	PsyCap	.28	.187	.373	.001
BO	POQ	-.20	-.304	-.090	.001
Eng	POQ	.13	.036	.219	.010
BO	Ter	.11	.031	.188	.008
Eng	Ter	-.06	-.131	.021	.153

Note. CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. Aut = job autonomy. BO = burnout. SS = social support. QWL = quantitative overload.

As evident in Table 68, all the proposed paths were significant in the expected direction, except the path from territoriality to engagement, which was negative but non-significant. Territoriality predicted burnout positively providing support to 11th hypothesis of this study. Burnout and engagement demonstrated strong negative relationship that provided evidence for 36th hypothesis of present work.

Job demands and resources as mediators. The second step involved specifying the mediating impact of job demands and resources on the relationship of psychological capital and psychological ownership with work engagement and burnout. It was hypothesized that job resources (social support and job autonomy) would mediate between promotive psychological ownership and work engagement whereas job demands (quantitative overload) would demonstrate mediating effect between territoriality and burnout. Furthermore, a negative direct effect from job resources to burnout was also hypothesized. This initial model did not demonstrated an acceptable fit with several goodness of fit indices (GFI = .98, CFI = .97, NFI = .96); however, the chi square value was quite high and significant with unacceptable values of RMSEA (χ^2 = 26.73, p = .000, RMSEA = .083). An inspection of

modification indices in AMOS output revealed that model fit could be significantly improved by adding a path from territoriality to job resources. Given that a negative relationship between social support and territoriality makes theoretical sense, the suggested path was added which indeed resulted in significant enhancements in model fit (χ^2 = 8.90, p = .113; GFI = .99; AGFI = .97; CFI = .99; NFI = .99; RMSEA = .040, p_{close} = .602; SRMR = .019). Path coefficients of direct and indirect paths are presented in Table 69 whereas this model is visually presented in Figure 53.

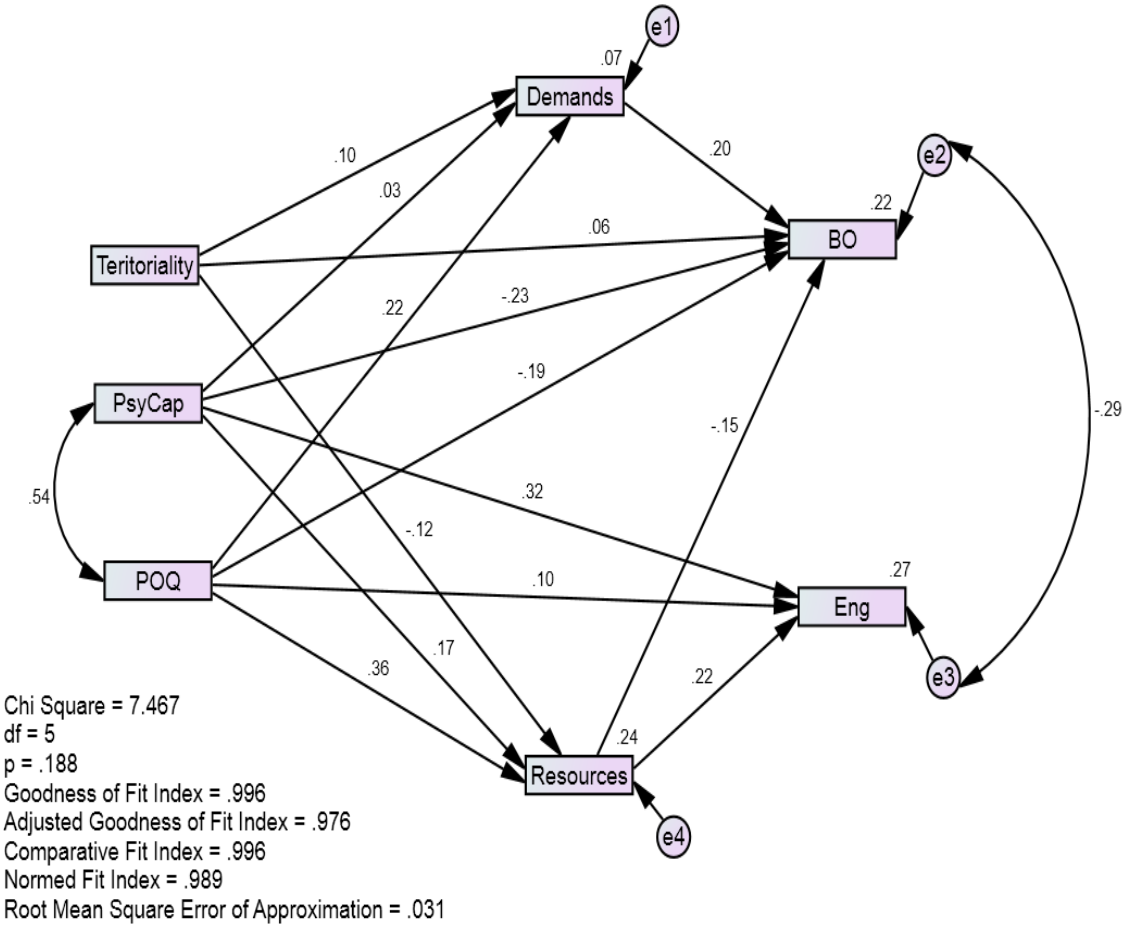

Figure 53. Psychological ownership in the context of Job Demands-Resources model

Table 69

Standardized Path Coefficients for Direct and Indirect Effects of Positive Personal Resources and Job Demands and Resources on Engagement and Burnout

Criterion Variable	Predictor Variable	β	CI_{95}		p
			LL	UL	
BO	PsyCap	-.23	-.328	-.127	.001
Eng	PsyCap	.26	.166	.344	.001
Demands	PsyCap	.03	-.076	.144	.582
Resources	PsyCap	.17	.066	.286	.003
BO	POQ	-.19	-.305	-.083	.002
Eng	POQ	.06	-.024	.158	.172
Demands	POQ	.22	.106	.332	.001
Resources	POQ	.36	.246	.459	.001
BO	Ter	.08	-.003	.154	.058
Demands	Ter	.10	.011	.195	.032
Resources	Ter	-.12	-.203	-.034	.007
BO	Demands	.19	.116	.264	.001
Eng	Resources	.18	.095	.262	.001
BO	Resources	-.15	-.238	-.052	.004
BO	PsyCap through Demands	.006	-.014	.031	.546
Eng	PsyCap through Resources	.04	.014	.075	.002
BO	POQ through Demands	.04	.020	.076	.000
Eng	POQ through Resources	.08	.046	.127	.001
BO	Ter through Demands	.02	.004	.042	.022
Eng	Ter through Resources	-.03	-.055	-.007	.004
BO	Ter through Resources	.02	.004	.041	.005

Note. CI = confidence interval. PsyCap = Psychological capital. POQ = psychological ownership. Eng = work engagement. BO = burnout. Ter = territoriality. Resources = job resources. Demands = job demands.

Table 69 suggests that job demands did not mediate between psychological capital and burnout. Thus, 35th hypothesis of this research was not supported. However, job demands fully mediated between territoriality and burnout (supporting 34th hypothesis of this research) and partially mediated between promotive ownership

and burnout. Similarly, job resources partially mediated between psychological capital and work engagement providing a support for 26th hypothesis of this study. Job resources fully mediated the relation of promotive ownership with work engagement yielding a strong support for our 25th hypothesis. Job resources indirectly mediated between lack of territoriality and enhanced work engagement. Finally, burnout partially mediated between lack of resources and employee's poor engagement providing support for 27th hypothesis of the current study.

Summary of Hypotheses Tests

The results of hypotheses tests are concisely summarized in Table 70. It should be noted that hypotheses that were repeated across all the models such as the hypothesized relationships between psychological capital and psychological ownership, psychological ownership and work engagement, psychological capital and work engagement, and so on, remained invariant across the models. Therefore, in order to avoid redundancy, these hypotheses were only described in models of in-role performance.

Table 70

Summary of Tests of Hypotheses

H. #	Hypotheses	Status
1	Positive psychological capital (PsyCap) will be positive predictor of desirable work behaviors.	Supported
1a	Positive psychological capital (PsyCap) will be positive predictor of in-role performance.	Supported
1b	Positive psychological capital (PsyCap) will be positive predictor of organizational citizenship behavior (OCB).	Supported
1c	Positive psychological capital (PsyCap) will be positive predictor of job related affective wellbeing.	Supported

Continued…

H. #	Hypotheses	Status
2	Positive psychological capital (PsyCap) will be negative predictor of undesirable work behaviors.	Supported
2a	Positive psychological capital (PsyCap) will be negative predictor of counterproductive work behaviors.	Supported
2b	Positive psychological capital (PsyCap) will be negative predictor of burnout.	Supported
3	Positive psychological capital (PsyCap) will explain an additional variance in the outcome variables (in-role performance, OCB, job related affective wellbeing, CWB, and burnout) above and beyond the variance explained by the control variables of positive and negative affectivity.	[a]Partially Supported
4	Positive psychological capital (PsyCap) will be positively related with authentic leadership, promotive psychological ownership, work engagement, and positive affectivity.	Supported
5	Positive psychological capital (PsyCap) will be negatively related with preventative psychological ownership or territoriality and negative affectivity.	Supported
6	Authentic leadership will be positively related with desirable work outcomes.	Partially Supported
6a	Authentic leadership will be positively related with promotive psychological ownership.	Not Supported
6b	Authentic leadership will be positively related with work engagement.	Supported
6c	Authentic leadership would be positively related with in-role performance.	Not Supported
6d	Authentic leadership will be positively related with job related affective wellbeing.	Supported
6e	Authentic leadership will be positively related with OCB.	Not Supported
7	Authentic leadership will be negatively related to undesirable work outcomes.	Not Supported

Continued…

H. #	Hypotheses	Status
7a	Authentic leadership will be negatively related to CWB.	Not Supported
7b	Authentic leadership will be negatively related to burnout.	Not Supported
8	Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with work intentions and various work behaviors.	Supported
8a	Promotive psychological ownership will mediate between positive psychological capital (PsyCap) and work engagement.	Supported
8b	Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with in-role performance.	Supported
8c	Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with organizational citizenship behavior.	Supported
8d	Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with job related affective wellbeing.	Supported
8e	Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with counterproductive work behaviors.	Not Supported
8f	Promotive psychological ownership will mediate the relationship of positive psychological capital (PsyCap) with burnout.	Supported
9	Promotive psychological ownership will be positively related to desirable work outcomes.	Supported
9a	Promotive psychological ownership will be positively related to in-role performance.	Supported
9b	Promotive psychological ownership will be positively related to OCB.	Supported
9c	Promotive psychological ownership will be positively related to job related affective wellbeing.	Supported

Continued…

H. #	Hypotheses	Status
10	Promotive psychological ownership will be negatively related to undesirable work outcomes.	Supported
10a	Promotive psychological ownership will be negatively related to counterproductive work behaviors	Supported
10b	Promotive psychological ownership will be negatively related to burnout.	Supported
11	Preventative psychological ownership or territoriality will positively relate to burnout.	Supported
12	Work engagement will mediate the relationship of promotive psychological ownership with various work outcomes	Supported
12a	Work engagement will mediate between promotive psychological ownership and in-role performance.	Supported
12b	Work engagement will mediate between promotive psychological ownership and OCB	[b]Supported
12c	Work engagement will mediate between promotive psychological ownership and job related affective wellbeing.	Supported
12d	Work engagement will mediate between promotive psychological ownership and CWB.	Not Supported
12e	Work engagement will mediate between promotive psychological ownership and burnout.	Supported
13	Work engagement will mediate the relationship of psychological capital with various work outcomes.	Supported
13a	Work engagement will mediate between psychological capital and in-role performance.	Supported
13b	Work engagement will mediate between psychological capital and OCB	[b]Supported
13c	Work engagement will mediate between psychological capital and job related affective wellbeing.	Supported

Continued…

H. #	Hypotheses	Status
13d	Work engagement will mediate between psychological capital and CWB.	Not Supported
13e	Work engagement will mediate between psychological capital and burnout.	Supported
14	Promotive psychological ownership and work engagement will serially mediate between psychological capital and work outcomes.	Supported
15	Social support will moderate between work engagement and performance by fortifying their positive relationship	Supported
16	Social support will moderate between authentic leadership and organizational citizenship behavior by strengthening their positive relationship.	Supported
17	Social support will moderate between work engagement and job related affective wellbeing by strengthening their positive relationship.	Not Supported
18	Social support will moderate between authentic leadership and work engagement by strengthening their positive relationship.	Not Supported
19	Job autonomy will positively predict promotive psychological ownership.	Supported
20	Job autonomy will moderate between authentic leadership and OCB such that it will strengthen their positive relation.	Supported
21	Job autonomy will moderate between promotive psychological ownership and job related affective wellbeing such that it will fortify their positive relationship.	Not Supported
22	Job autonomy will moderate between work engagement and burnout such that it will mitigate their negative relationship.	Supported
23	Job resources (social support) will positively relate to promotive psychological ownership, work engagement, in-role performance, job related affective wellbeing, and organizational citizenship behavior.	Supported

Continued…

H. #	Hypotheses	Status
24	Job resources (social support) will negatively relate to preventative psychological ownership or territoriality, counterproductive work behaviors, and burnout.	[c]Partially Supported
25	Job resources will mediate between promotive psychological ownership and work engagement.	Supported
26	Job resources will mediate between positive psychological capital and work engagement.	Supported
27	Resources will buffer the negative effect of burnout on work engagement.	Supported
28	Quantitative overload will moderate between positive psychological capital and promotive psychological ownership by dampening their positive relationship.	Supported
29	Quantitative role overload will moderate between work engagement and in-role performance such that it will strengthen the positive association between work engagement and in-role performance.	Supported
30	Quantitative role overload will moderate between psychological capital and job related affective well-being such that the positive relationship between psychological capital and job related affective well-being would be weakened under conditions of high quantitative role overload.	Not Supported
31	Quantitative role overload will moderate between authentic leadership and burnout such that it will strengthen the negative association between authentic leadership and burnout.	Supported
32	Quantitative overload will negatively relate to promotive psychological ownership, work engagement, in-role performance, job related affective wellbeing, and organizational citizenship behavior.	Not Supported
33	Quantitative overload will positively relate to preventative psychological ownership or territoriality, counterproductive work behaviors, and burnout.	Supported

Continued…

H. #	Hypotheses	Status
34	Quantitative overload will mediate between preventative psychological ownership and burnout.	Supported
35	Quantitative overload will mediate between preventative psychological capital and burnout.	Not Supported
36	Burnout and work engagement will be negatively related	Supported

[a]Psychological capital explained unique variance beyond the controls in all work outcomes except organizational citizenship behavior.

[b]Work engagement mediated when effects of positive affectivity were not controlled.

[c]Social support had negligible relationship with territoriality.

Part III: Impact of Demographics on the Variables of the Present Study

This study has explored gender (men vs. women); age (with two categories—up to 30 years of age vs. above 30 years of age); faculty (science vs. arts and social sciences); academic qualification (with three categories—Masters/BS vs. MPhil/MS vs. PhD); job status (regular faculty members vs. faculty on probation and hired on contract basis); and job experience (with two categories—up to 4 years vs. more than 4 years) in relation to various work related variables among university teachers. The effect of these demographics was examined through multivariate analysis of variance, which was followed by post hoc univariate analyses for each of the variables of the present study.

Table 71

Mean and Standard Deviations of Variables of the Present Study in Relation to Demographics (N = 466)

	Variable		PsyCap		AL		PA		NA		PO		WE		SS	
		N	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Gender	Men	192	58.60	7.23	28.68	6.46	20.01	3.32	7.13	3.34	48.24	7.02	27.75	5.83	23.87	3.78
	Women	274	57.13	7.67	27.28	7.24	19.52	3.55	7.62	3.27	47.69	7.15	26.53	6.49	23.02	4.65
Age	Up to 30 Yrs.	269	57.17	7.59	27.78	6.80	19.68	3.46	7.45	3.39	47.54	7.06	27.00	6.22	23.29	4.25
	Above 30 Yrs.	197	58.52	7.34	27.96	7.19	19.79	3/48	7.37	3.19	48.44	7.12	27.07	6.29	23.49	4.45
Faculty	Science	186	57.29	6.93	28.15	6.13	19.42	3.28	7.42	3.28	47.68	7.26	27.18	6.02	23.65	3.85
	Arts	280	58.03	7.88	27.66	7.46	19.93	3.57	7.42	3.33	48.08	6.99	26.93	6.40	23.18	4.62
Edu.	BS/Masters	141	56.79	7.29	26.75	7.42	19.49	3.26	7.87	3.54	46.77	7.07	26.79	6.27	23.05	4.57
	MS/MPhil	224	58.08	7.78	28.26	6.71	19.71	3.69	7.41	3.36	48.58	6.55	27.04	5.96	23.64	4.25
	PhD	101	58.29	7.15	28.49	6.70	20.09	3.19	6.81	2.73	48.05	8.11	27.35	6.86	23.23	4.16
Job	Contract	198	57.12	8.07	28.00	7.07	19.74	3.57	7.66	3.36	47.38	7.95	26.97	6.46	23.42	4.49
	Regular	268	58.19	7.05	27.75	6.89	19.72	3.39	7.24	3.25	48.32	6.38	27.07	6.09	23.33	4.21
Exp.	Up to 4 Yrs.	259	56.54	7.57	27.90	6.89	19.31	3.49	7.54	3.32	46.99	7.38	26.12	6.56	23.09	4.33
	Above 4 Yrs.	207	59.23	7.17	27.97	7.06	20.25	3.37	7.26	3.28	49.08	6.56	28.17	5.65	23.73	4.32

Continued…

Variable			AT		QL		OCB		CWB		JAW		IP		BO		TR	
		N	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Gender	Men	192	12.65	2.96	16.16	4.39	23.97	3.75	8.76	2.35	29.03	3.96	18.39	1.88	11.51	7.93	13.45	4.73
	Women	274	12.00	3.24	15.83	4.16	23.22	3.68	9.29	3.82	28.71	4.74	18.28	2.27	13.27	8.85	12.18	4.48
Age	Up to 30 Yrs.	269	11.93	3.18	15.72	4.18	23.41	3.71	9.08	3.26	28.84	4.54	18.31	2.32	12.60	8.42	12.21	4.66
	Above 30 Yrs.	197	12.74	3.03	16.29	4.34	23.69	3.74	9.05	3.38	28.83	4.29	18.34	1.81	12.47	8.66	13.37	4.49
Fac.	Science	186	12.27	3.01	16.08	4.19	23.49	4.00	8.62	2.08	28.86	4.16	18.45	1.91	11.73	7.27	12.46	4.49
	Arts	280	12.27	3.23	15.89	4.30	23.55	3.53	9.37	3.88	28.83	4.61	18.24	2.24	13.09	9.22	12.87	4.71
Edu.	BS/MSc	141	12.31	3.15	15.69	4.51	23.36	3.94	9.20	3.32	27.99	4.49	18.28	2.44	13.91	8.70	12.42	4.63
	MS/MPhil	224	12.18	3.16	15.98	4.13	23.65	3.57	9.01	3.22	29.26	4.34	18.41	1.92	12.33	8.29	12.71	4.63
	PhD	101	12.41	3.11	16.32	4.16	23.52	3.77	9.05	3.48	29.11	4.44	18.20	2.07	11.11	8.56	13.09	4.59
Job	Contract	198	12.05	3.27	15.91	4.28	23.54	3.77	9.17	3.65	28.57	4.67	18.37	2.13	12.46	8.35	12.45	4.59
	Regular	268	12.43	3.04	16.00	4.24	23.53	3.69	9.01	3.03	29.04	4.25	18.29	2.12	12.61	8.65	12.89	4.65
Exp.	Up to 4 Yrs.	259	11.78	3.31	15.69	4.15	23.07	3.72	9.31	3.73	28.42	4.71	18.27	2.38	13.44	8.74	12.44	4.52
	Above 4 Yrs.	207	12.89	2.81	16.31	4.37	24.11	3.65	8.78	2.66	29.37	4.01	18.39	1.74	11.43	8.11	13.02	4.73

Note. Fac. = faculty; Edu. = education; Job = job status; Exp. = job experience; Yrs. = number of years; PC = psychological capital; AL = authentic leadership; PA = positive affectivity; NA = negative affectivity; PO = promotive psychological ownership; WE = work engagement; SS = social support; AT = job autonomy; QL = quantitative overload, OCB = organizational citizenship behavior; CWB = counterproductive work behaviors; JAW = job related affective wellbeing; IP = in-role performance; BO = burnout; TR = territoriality.

Table 71 presents means and standard deviations of all variable of the present study in relation to various demographics being explored in this research. An inspection of this table reveals that mean values of variables across various categories of demographics are not very different. Standard deviations are also relatively stable across various categories of demographics. This pattern suggests that main effects of these demographics on variables of the present study are quite unlikely. The maximum mean difference occurs for job experience where the mean psychological capital of more experienced teachers is 2.69 points greater than that of less experienced teachers.

Table 72 presents the findings of multivariate analysis of variance and the follow up post hoc univariate analyses of variance for the exploration of main as well as interactive effects of the aforementioned demographics on the variables of the present study. This table shows only those main and interactive effects for which multivariate *F* statistic was significant. The multivariate significant effects were further explored through univariate analyses of variance for each of the variables of the present study. The significant interactive effects are visually illustrated through Figures 54 to 96.

Table 72

Multivariate and Univariate Analysis of Variance for the Variables of the Present Study (N = 466)

Variable	MANOVA *F*	ANOVA *F*														
		PC	AL	PO	AT	WE	JAWS	SS	OCB	IP	PA	NA	TR	QL	CWB	BO
F[a]	2.01*	1.83	.62	.22	.15	.00	.06	1.89	.66	.01	1.17	3.70	4.99*	1.95	1.09	2.73
AxF	1.95*	7.65**	.20	2.34	.63	4.87*	.30	.32	.00	.23	3.88*	4.82*	7.52	.36	2.04	.15
AxQ	2.40***	3.30*	1.53	3.11*	2.15	3.00	1.19	.23	4.41*	1.80	1.71	4.41*	.19	.54	3.27*	1.73
AxE	1.70*	10.72**	3.10	3.37	4.35*	1.77	.66	.00	1.05	.32	3.37	.40	.04	.06	.08	2.64
AxG	2.17**	6.72**	.02	1.98	2.90	1.51	.14	1.09	.26	.10	9.47**	.31	8.76**	1.26	.18	.17
AxFxQ	2.05**	2.25	.71	4.62**	2.55	.70	.01	.84	3.47*	.53	2.13	1.13	.36	.96	1.75	.10
AxFxE	1.86*	6.83**	3.49	.23	4.88*	2.91	1.88	3.39	.05	.22	8.67**	.35	2.41	1.23	.93	4.29*
AxFxG	2.58***	.34	.48	2.89	1.14	4.47*	.00	.02	6.09*	.68	3.37	4.45*	.03	.04	.01	.46
AxQxE	1.60*	.96	3.13*	.63	.11	2.05	1.06	.07	.03	.16	3.92*	1.44	1.91	.29	2.85	1.21
AxQxG	2.35***	1.65	.29	5.73**	1.69	1.72	.20	.45	1.28	.71	3.23*	1.21	5.58**	.22	.29	2.20
AxQxJ	2.09***	4.05*	.86	2.31	3.42*	.74	.37	.33	1.74	.75	1.09	1.53	1.37	1.12	2.53	.58
FxQxE	2.06***	3.53*	.72	4.86**	2.54	.04	.11	.06	.12	.04	7.87***	.56	1.08	1.21	.89	1.75
FxJxE	2.26**	4.76*	2.47	.00	4.11*	.74	.93	.28	.08	.15	.40	.80	2.10	.02	1.06	1.52
QxGxE	1.84**	1.38	.00	2.71	1.41	.47	.64	.18	.16	.12	6.58**	1.16	5.04**	.09	.21	3.46*
GxJxE	1.75*	9.01**	4.20*	1.85	3.19	.14	1.59	7.11**	1.18	4.19*	2.29	1.73	2.79	.09	8.09**	3.76

Note. F ratios are Wilk's approximation of *F*. ANOA = univariate analysis of variance; MANOVA = multivariate analysis of variance; G = gender; A = age; F = faculty; Q = qualification; J = job status; E = job experience. PC = psychological capital; AL = authentic leadership; PO = promotive psychological ownership; AT = job autonomy; WE = work engagement; JAW = job related affective wellbeing; SS = social support; OCB = organizational citizenship behavior; IP = in-role performance; PA = positive affectivity; NA = negative affectivity; TR = territoriality; QL = quantitative overload, CWB = counterproductive work behaviors; BO = burnout.

[a]Multivariate *df* = 15, 397; Univariate *df* = 1, 411. [b]Multivariate *df* = 30, 794, Univariate *df* = 2, 411

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 72 presents findings of multivariate analyses for assessing the influence of demographics on variables of the present study. Among all the factors, only faculty had a significant multivariate F whereas all other factors (including gender, age, job status, job experience, and education) were non-significant in relation to the combination of variables of the present study. The significant multivariate main effect of faculty was followed by univariate analyses of variance, which revealed significant differences in territoriality or preventative psychological ownership where teachers of arts and social sciences had significantly higher mean score as compared to their counterparts belonging to science disciplines.

Various two-way and three way interactions produced significant multivariate F ratios and they were followed through univariate analyses of variance for each of the variables of the present study. Among significant two-way interactions, faculty and age had a significant interactive impact on psychological capital, work engagement, positive affectivity, and negative affectivity. These interactive effects have been illustrated in Figure 54 to 57.

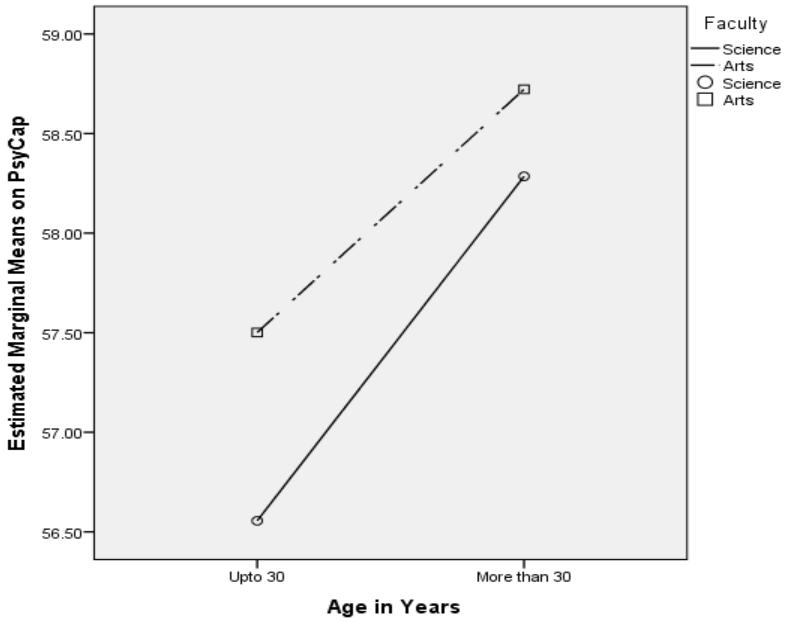

Figure 54. Interactive effect of age and faculty on psychological capital

As depicted in Figure 54, faculty of arts and social sciences had higher levels of psychological capital as compared to faculty of science. However, it appeared that psychological capital was increasing at a more rapid pace with the passage of age in case of science faculty than it did for teachers of arts disciplines.

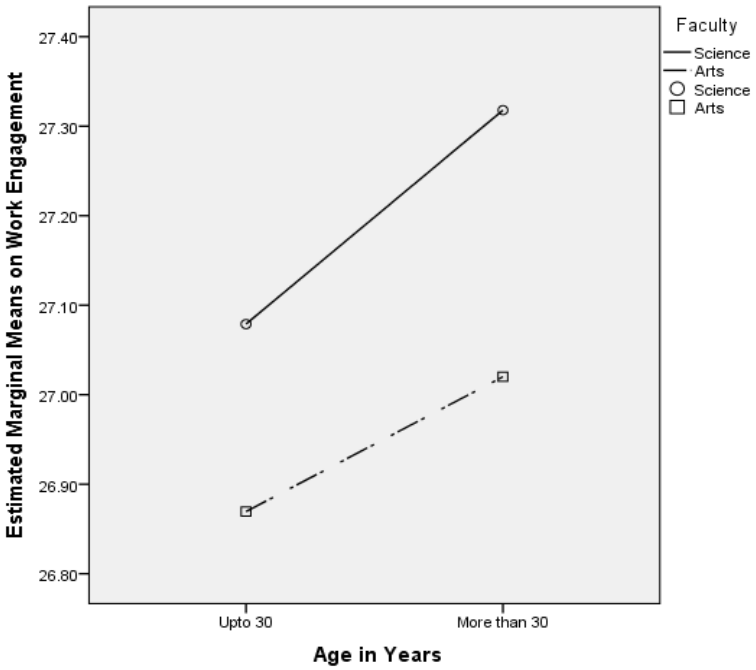

Figure 55. Interactive effect of age and faculty on work engagement

The interactive effect of age and faculty on work engagement revealed that faculty of science was more engaged in their work as compared to faculty of arts and social sciences. It is also evident in Figure 55 that with the passage of age, work engagement is increasing at a more rapid speed among faculty of science than it does among teachers of arts and social sciences.

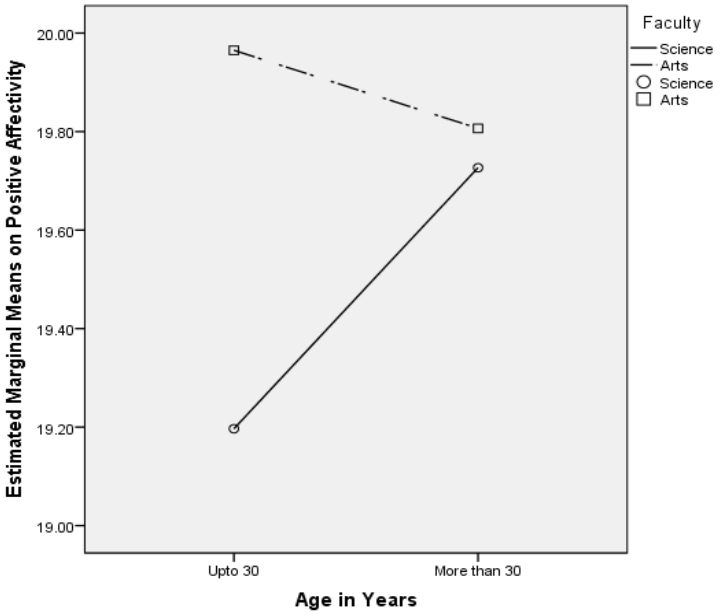

Figure 56. Interactive effect of age and faculty on positive affectivity

Figure 56 revealed that positive affectivity of faculty of arts and social sciences was declining with the passage of age; however, it was rising among teachers of sciences with the passage of age.

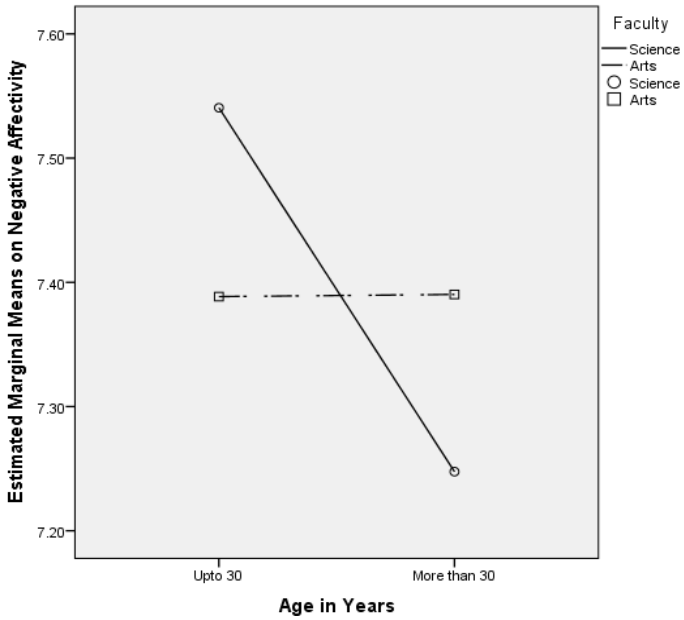

Figure 57. Interactive effect of age and faculty on negative affectivity

Among teachers of sciences, negative affectivity was declining with the passage of age whereas for teachers of arts and social sciences age appeared to have no influence on negative affectivity (see Figure 57).

Age and qualification of university teachers asserted a significant multivariate interactive influence. Post hoc univariate analyses revealed that the interactive effect of these two factors was significant on psychological capital, psychological ownership, organizational citizenship behavior, negative affectivity, and counterproductive work behaviors. Figure 58 to 62 depict these interactive effects.

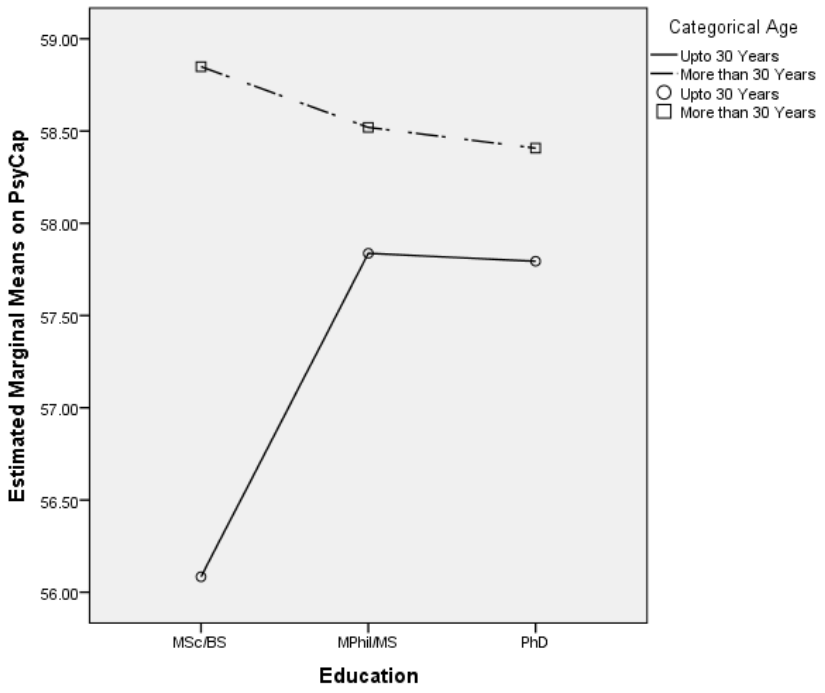

Figure 58. Interactive effect of age and qualification on psychological capital

For university teachers who are above 30 years of age, psychological capital does not fluctuate with the increase of academic qualification. However, for younger university teachers, psychological capital increases with the advancement of their qualification from masters to MPhil and then remains almost stable during the transition from MPhil to PhD (see Figure 58).

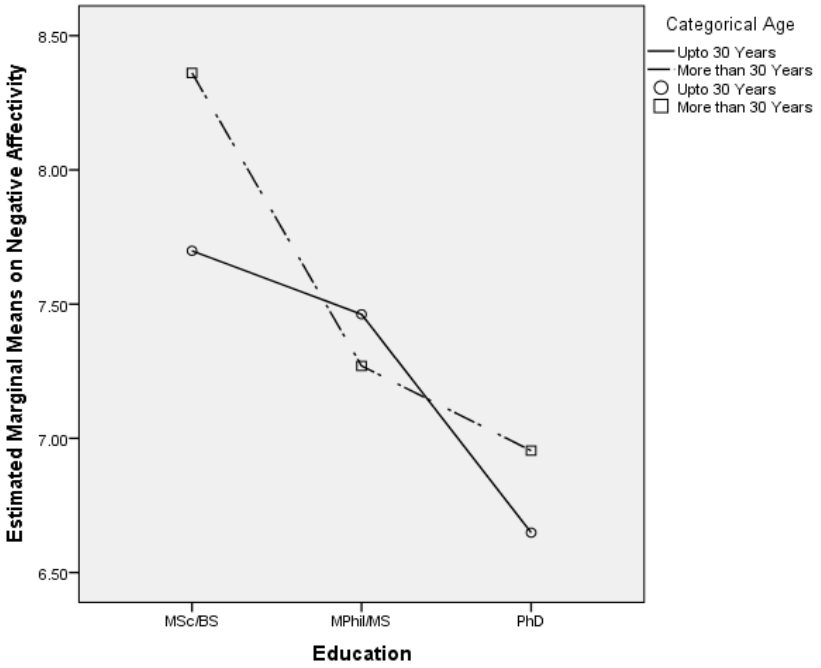

Figure 59. Interactive effect of age and qualification on negative affectivity

Figure 59 represents that negative affectivity of university teachers decreases with the advancement of their academic qualification. Negative affectivity is highest in university those university teachers who are more than 30 years old and have 16 years of academic qualification and it is the lowest in case of younger university teachers with PhD degrees.

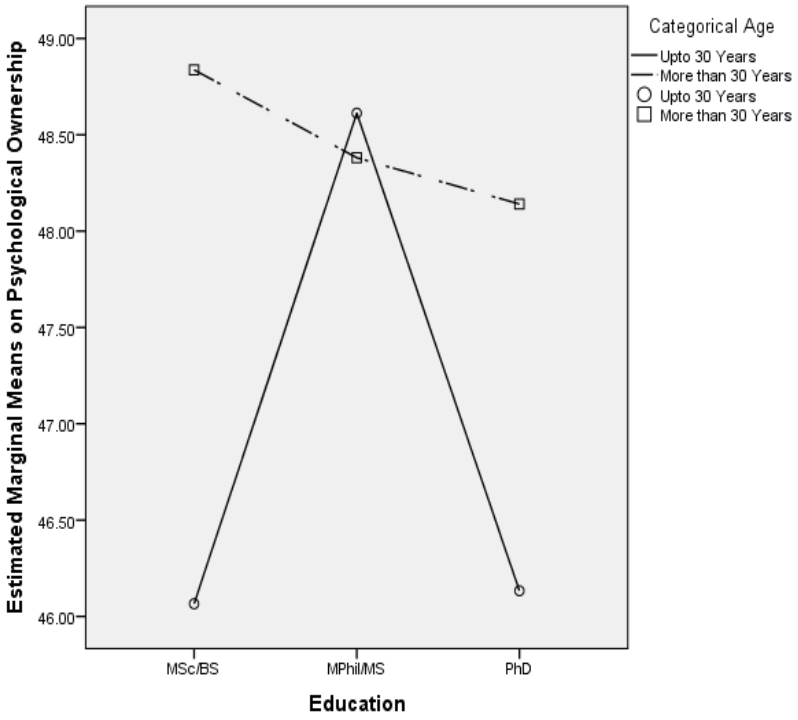

Figure 60. Interactive effect of age and qualification on psychological ownership

The interactive effect of age and qualification on psychological ownership of university teachers reveals that faculty older than 30 years has generally higher levels of psychological ownership for their universities as compared to the younger faculty. The faculty older than 30 years of age with 16 years of academic qualification possesses highest level of psychological ownership whereas the younger counterpart faculty with masters/BS degree has lowest mean score on psychological ownership.

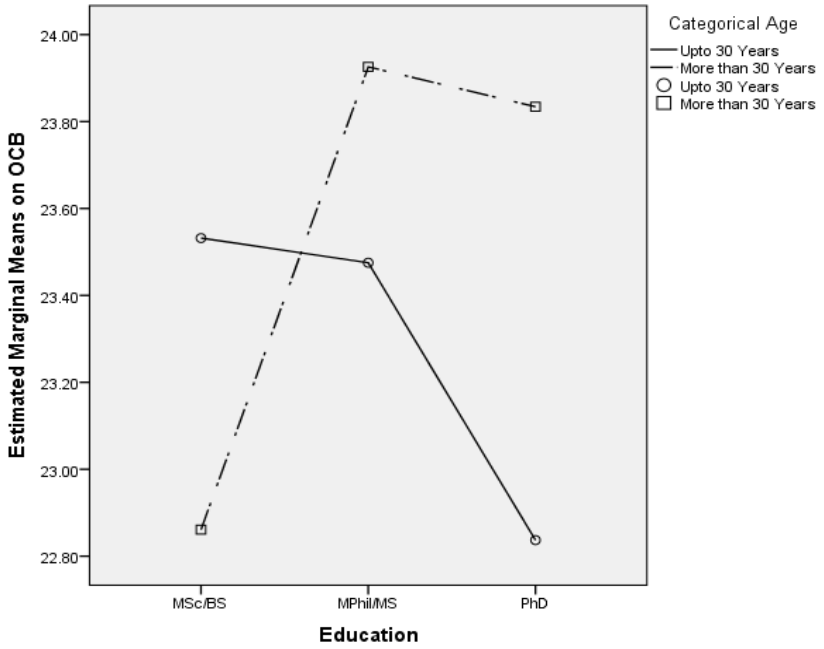

Figure 61. Interactive effect of age and qualification on organizational citizenship behavior

The interactive effect of age and qualification on organizational citizenship behavior as depicted in Figure 61 suggests that faculty holding MPhil/MS degree with more than 30 years of age demonstrates highest level of organizational citizenship behavior whereas the younger faculty having PhD degree exhibited lowest organizational citizenship behavior.

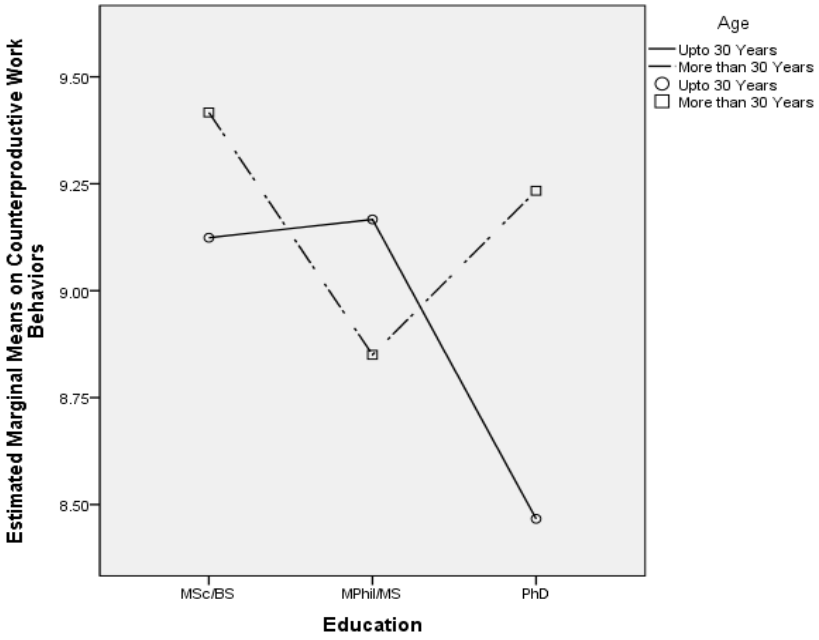

Figure 62. Interactive effect of age and qualification on counterproductive work behaviors

University teachers who are older than 30 years of age and possess 16 years of academic qualification have highest mean score on counterproductive work behaviors whereas the younger university teachers having PhD degrees have lowest mean score on counterproductive work behaviors.

The next significant multivariate two-way interactive effect was demonstrated by age and job experience. The follow up univariate analyses revealed that the interactive effect of these two factors was significant for psychological capital and job autonomy. Figure 63 and 64 visually depict these interactive effects.

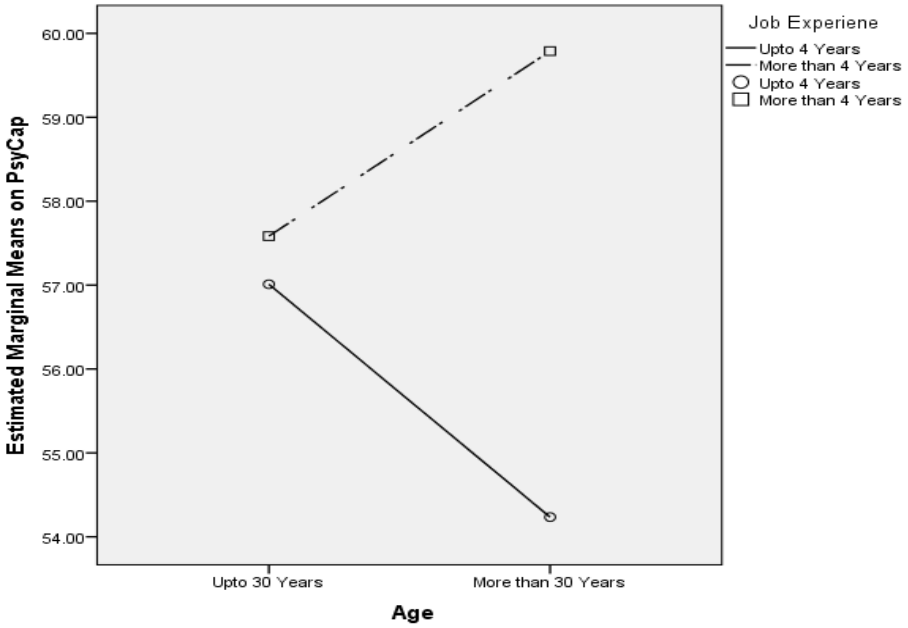

Figure 63. Interactive effect of age and job experience on psychological capital

Figure 63 reveals that psychological capital increases with an increase in age for more experienced faculty members whereas it decreases with the passage of age among university teachers who have less than 4 years of job experience.

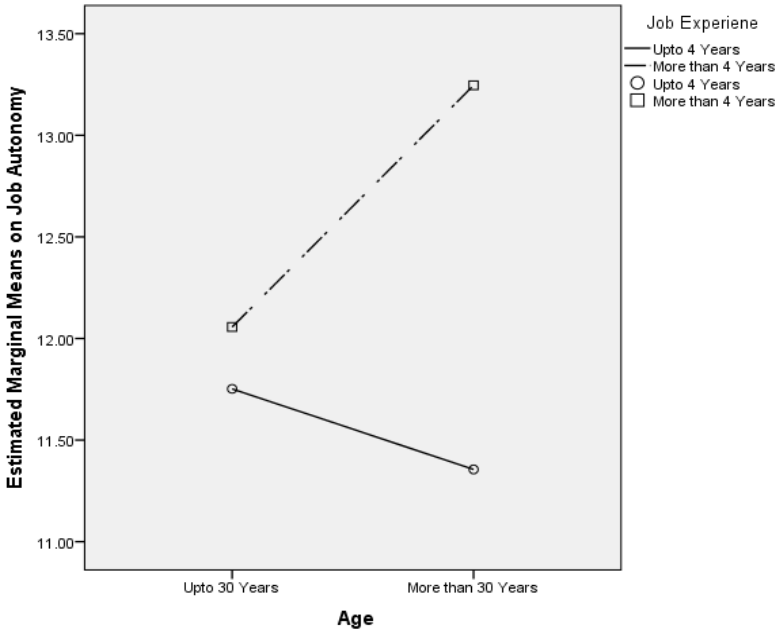

Figure 64. The interactive effect of age and job experience on job autonomy

Figure 64 reveals that job autonomy increases with an increase in age for more experienced faculty members whereas it decreases with the passage of age among university teachers who have less than 4 years of job experience.

Age also yielded a significant multivariate interactive effect with gender. The univariate post hoc analyses revealed significant interactive effect of age and gender on psychological capital, positive affectivity, and territoriality. These interactions are visually depicted in Figure 65 to 67.

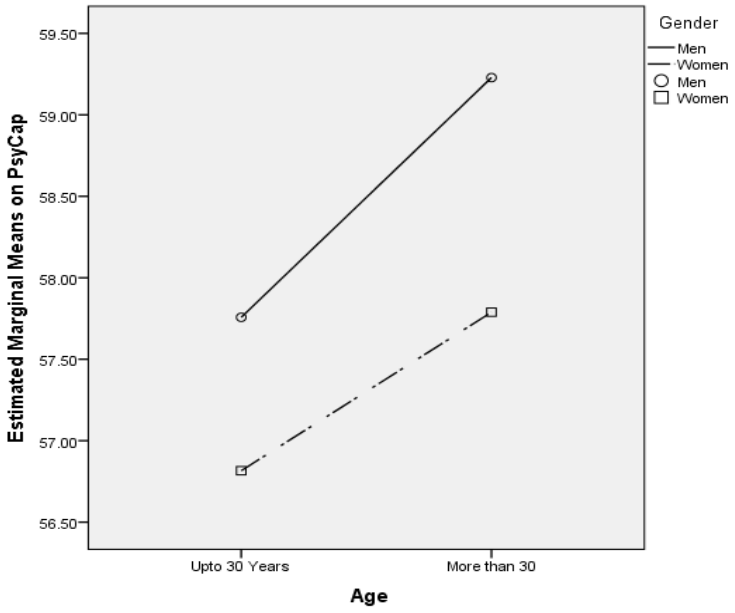

Figure 65. The interactive effect of age and gender on psychological capital

As depicted in Figure 65, male faculty members over 30 years of age are the richest in psychological capital whereas women below 30 years of age have lowest mean score on psychological capital.

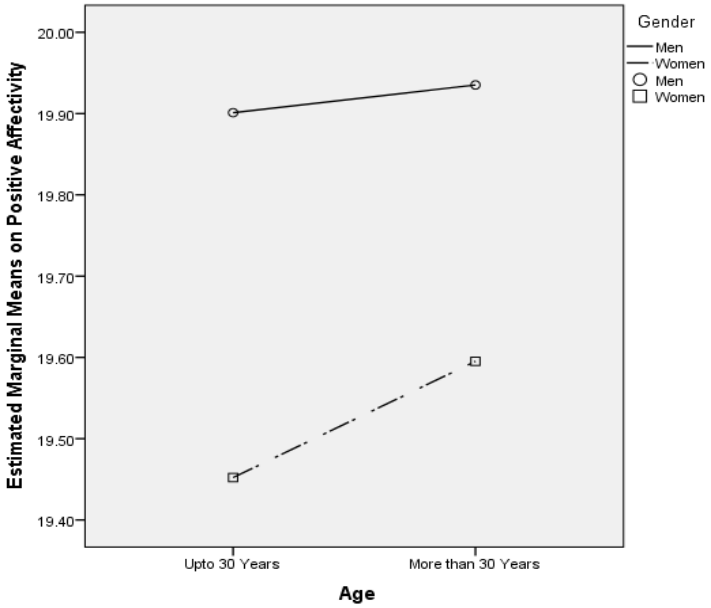

Figure 66. The interactive effect of age and gender on positive affectivity

As depicted in Figure 66, male faculty members over 30 years of age have highest mean score on positive affectivity whereas women below 30 years of age have lowest mean score on the same.

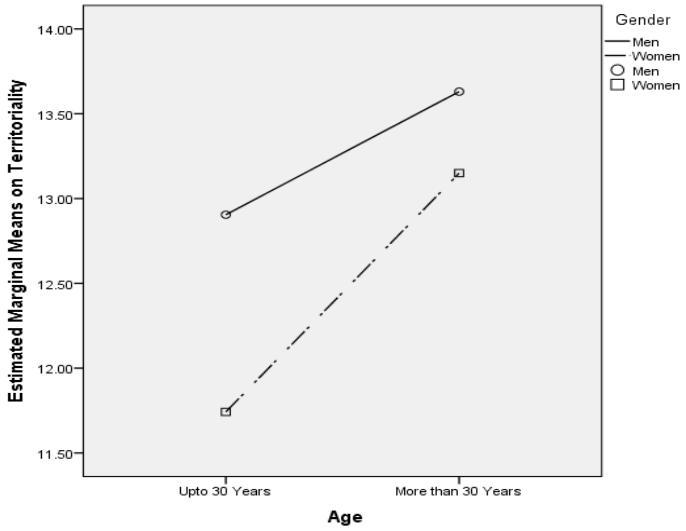

Figure 67. The interactive effect of age and gender on territoriality

Male faculty older than 30 years of age demonstrated highest levels of territoriality whereas female faculty less than 30 years of age demonstrated lowest mean score on the same (see Figure 67).

The first significant three-way interaction was demonstrated by age, faculty, and academic qualification. The post hoc univariate analyses revealed significant univariate interactive effect of these three factors on psychological ownership and organizational citizenship behavior. Figure 68 and 69 visually depict these interactive effects.

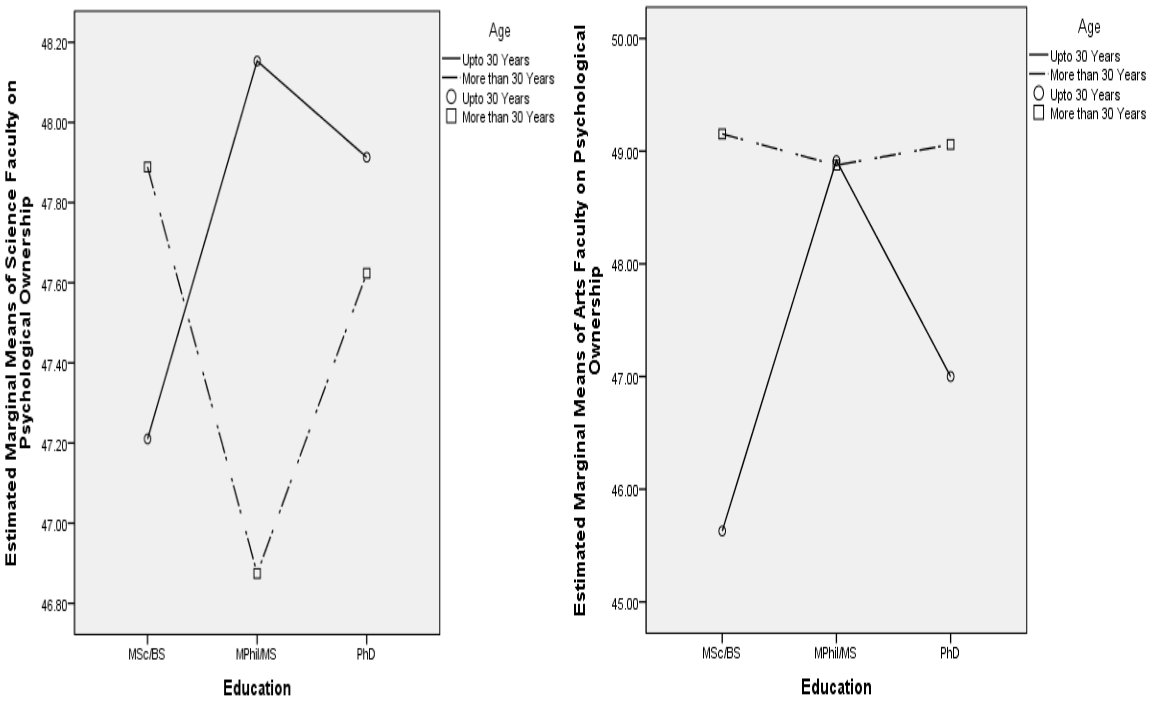

Figure 68. Interactive effect of age, qualification, and faculty on psychological ownership

In faculty of science, teachers with more than 30 years of age with MPhil/MS degree have lowest mean score on psychological ownership whereas in case of faculty of arts and social sciences, teachers who are younger than 30 years of age with 16 years of academic qualification possess lowest level of ownership for their

universities. Younger science teachers with MPhil/MS and PhD degrees have higher psychological ownership whereas in case of arts and social sciences faculty, teachers who are older than 30 years have higher levels of psychological ownership.

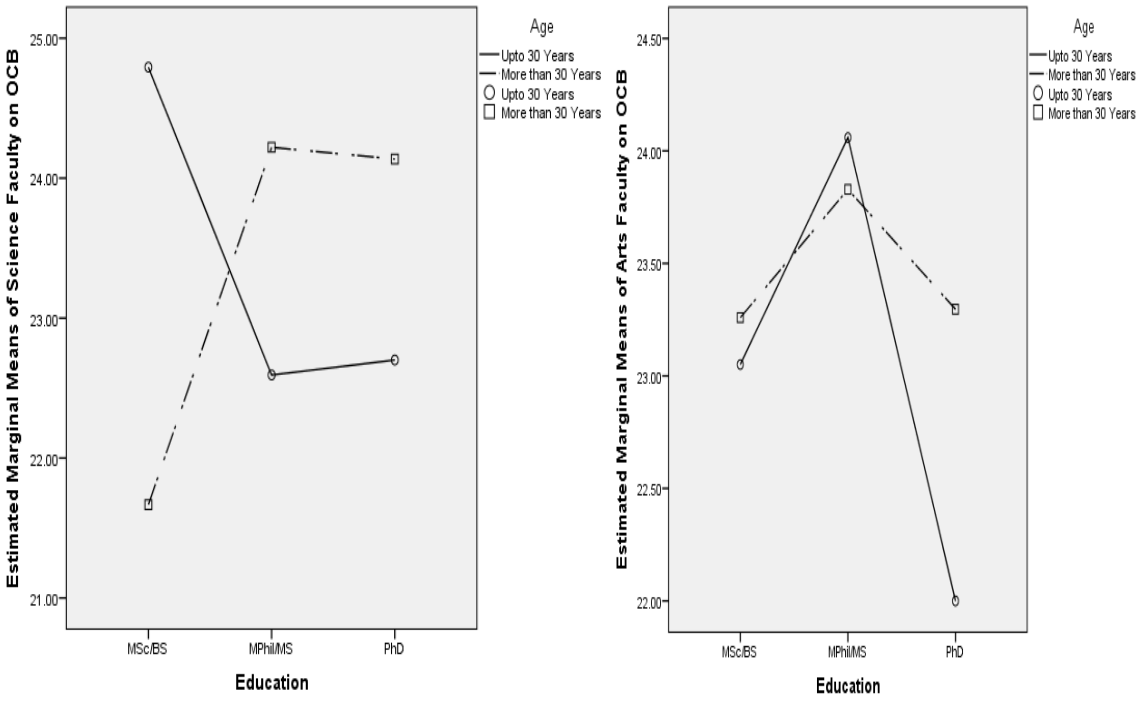

Figure 69. Interactive effect of age, qualification, and faculty on OCB

Organizational citizenship behavior is increasing with the advancement of educational level of science teachers from MSc/BS to MPhil and then it becomes stable for those who more than 30 years of age, however, the reverse are true for younger science teachers. In contrast, for both the age groups of teachers of arts and social sciences, organizational citizenship behavior of teachers with MPhil/MS degrees is higher as compared to teachers with 16 years of education and PhD degrees.

Age, faculty, and qualification also had a significant multivariate interactive effect for which the univariate post hoc ANOVAs revealed significant effect on

psychological ownership, autonomy, positive affectivity, and burnout. These interactive effects are visually presented in Figure 70 to 73.

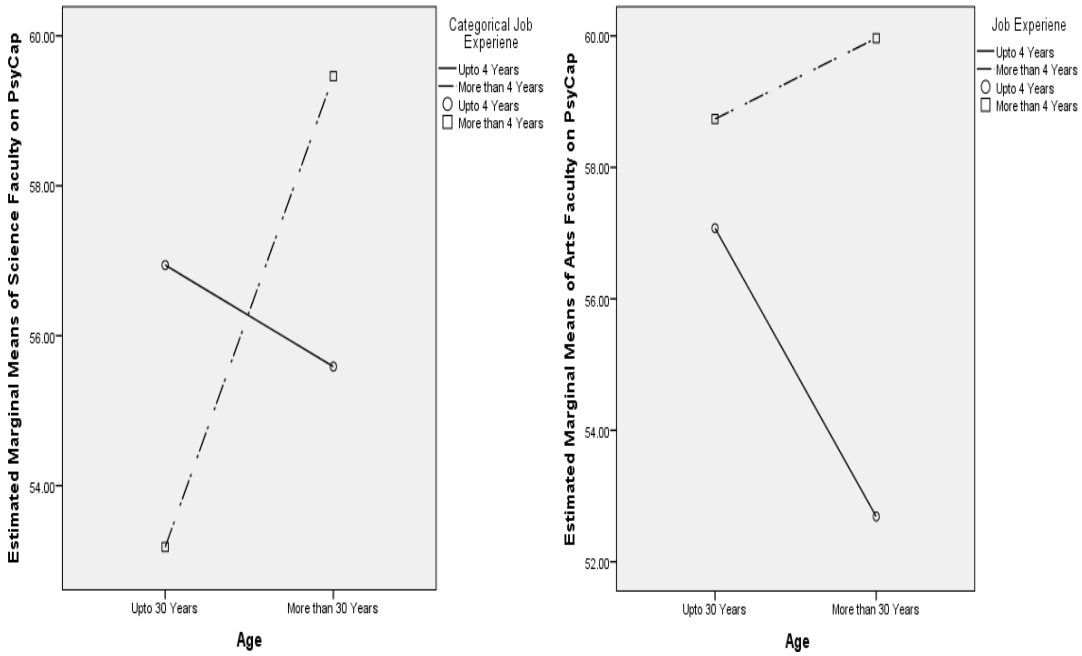

Figure 70. Interactive effect of age, job experience, and faculty on psychological capital

Although psychological capital of faculty of science with more than four years of job experience is increasing with increase in age, younger and more experienced teachers have lowest mean score on psychological capital. However, in case of faculty of arts and social sciences, more experienced teachers have higher levels of psychological capital, which is increasing with the age as compared to teachers with less than four years of experience whose psychological capital is negatively linked to their age.

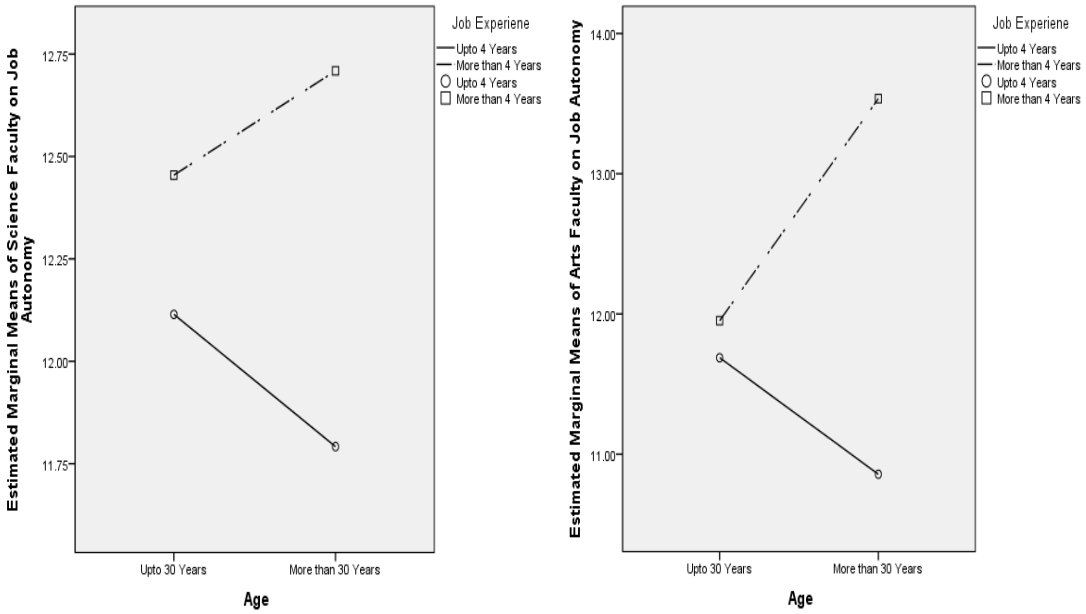

Figure 71. Interactive effect of age, job experience, and faculty on job autonomy

For both faculties, psychological capital is positively related with age for university teachers with more than four years of job experience; however, the reverse is true for university teachers having less than four years of job experience. Younger science teachers having more than four years of job experience enjoy the highest amount of job autonomy whereas teachers of arts and social sciences who are more than 30 years of age having less than four years of job experience have lowest mean score on job autonomy.

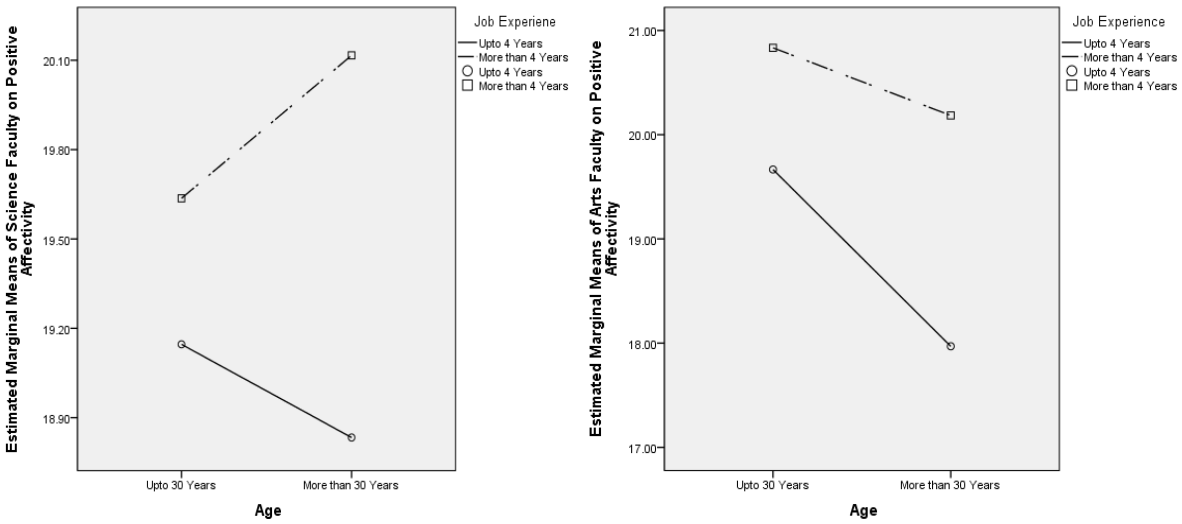

Figure 72. Interactive effect of age, job experience, and faculty on positive affectivity

As depicted in Figure 72, positive affectivity is positively related with age for science faculty who has more than four years of job experience; however, this relationship is reversed for science teachers who have less than four years of job experience. In contrast, among teachers of arts and social sciences, positive affectivity is negatively linked with age for more as well as less experienced teachers.

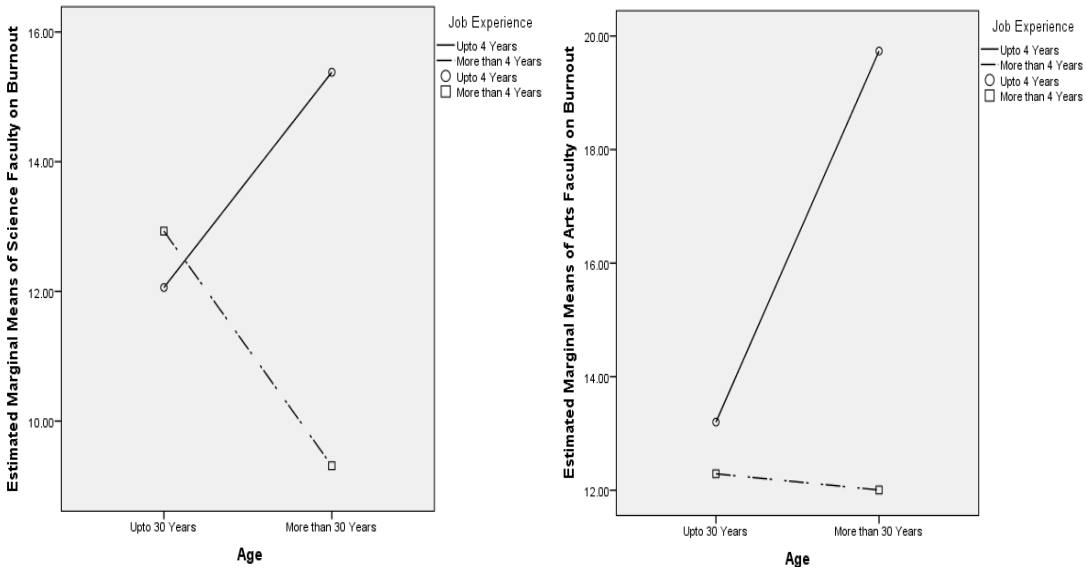

Figure 73. Interactive effect of age, job experience, and faculty on burnout

For science faculty, there is a positive relationship between age and burnout for teachers with less than 4 years of experience whereas the reverse is true for more experienced teachers. In case of faculty of arts and social sciences, the positive relationship between age and burnout for low experience group is evident; however, for the experienced group age is irrelevant to burnout.

Age, faculty, ad gender also demonstrated a multivariate significant interactive effect. Post hoc analyses revealed that the interaction of these three factors was significant in relation to work engagement, organizational citizenship behavior, and negative affectivity. Figure 74 to 76 depict these interactive effects.

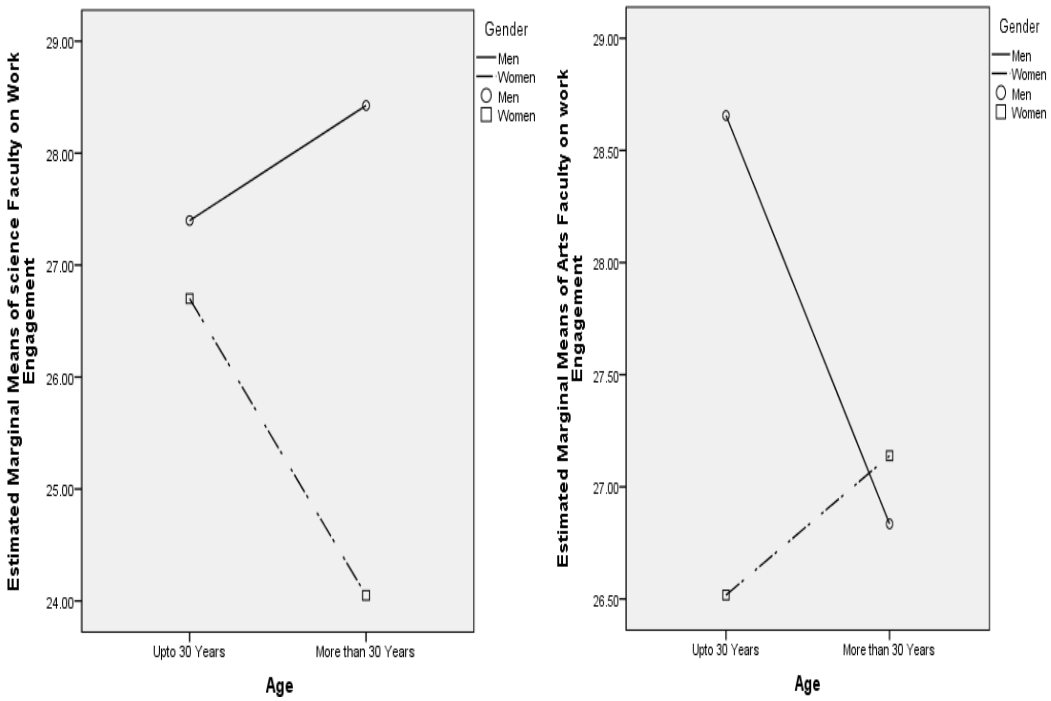

Figure 74. Interactive effect of age, gender, and faculty on work engagement

In science faculty, there is a positive relation between work engagement and age for male teachers whereas the reverse is true for female teachers. In case of faculty of arts and social sciences, female teachers' work engagement is positively related with their age whereas male teachers' work engagement is negatively related with their age.

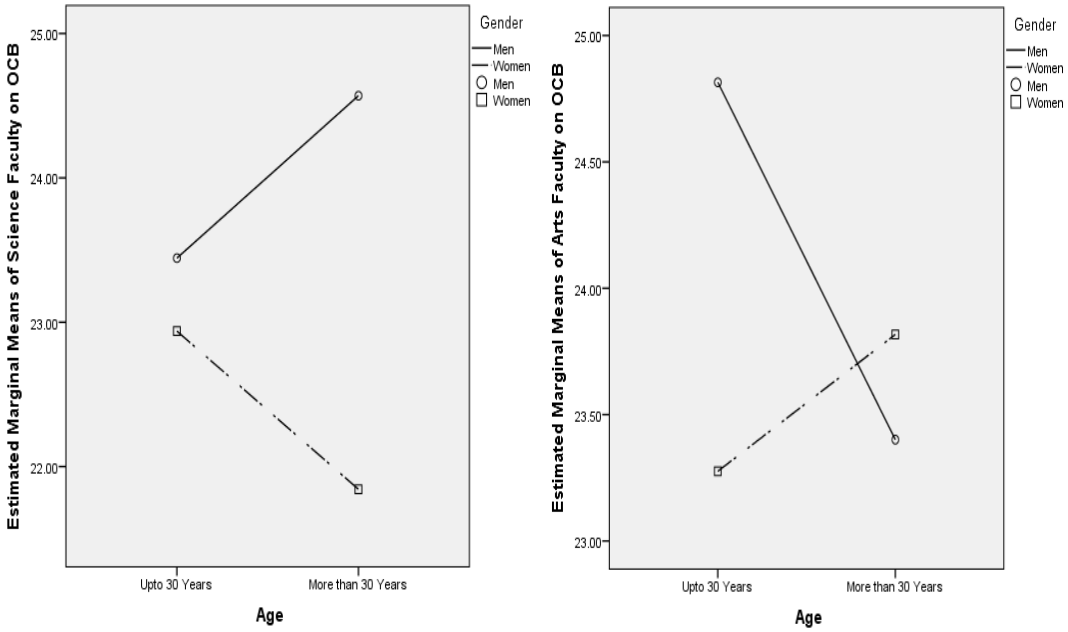

Figure 75. Interactive effect of age, gender, and faculty on organizational citizenship behavior

As delineated in Figure 75, age is positively associated with organizational citizenship behavior among male teachers of science whereas the reverse is true for female teachers. In case of arts and social sciences teachers, OCB and age are positively related for female faculty whereas these two are negatively related for male faculty.

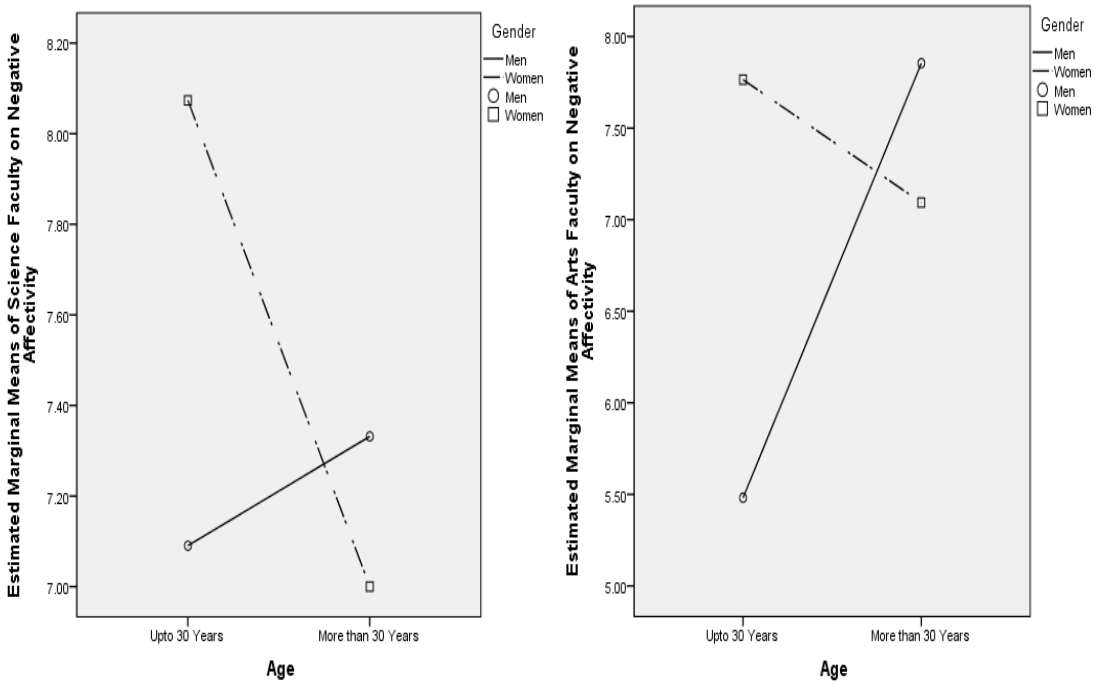

Figure 76. Interactive effect of age, gender, and faculty on negative affectivity

In science faculty, there is a positive relation between negative affectivity and age for male teachers whereas the reverse is true for female teachers. In case of faculty of arts and social sciences, male teachers' negative affectivity is positively related with their age whereas female teachers' negative affectivity is negatively related with their age. Overall, in both faculties, men have greater levels of work engagement than women do.

Another significant three-way multivariate interaction effect was demonstrated by age, qualification, and job experience. More specifically, the interaction of these three factors was significant in relation to authentic leadership and positive affectivity. Figure 77 and 78 delineate these interactive effects schematically.

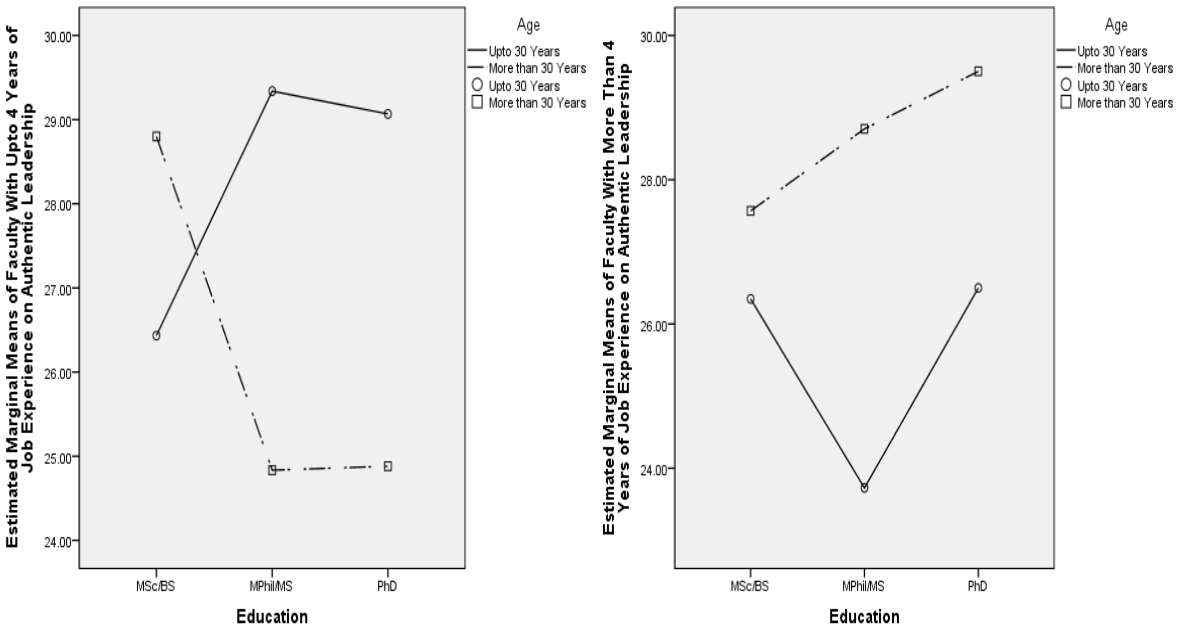

Figure 77. Interactive effect of age, qualification, and job experience on authentic leadership

For younger faculty with 4 or less than four years of job experience, authentic leadership is positively associated with advancement of education from MSc/BS level to MPhil/MS level and then it remains stable for PhD teachers. This pattern is exactly reversed for faculty with more than 30 years of age. In case of more experienced faculty, teachers with more than 30 years of age have higher perceptions of authentic leadership at all educational levels in contrast with their younger counterparts.

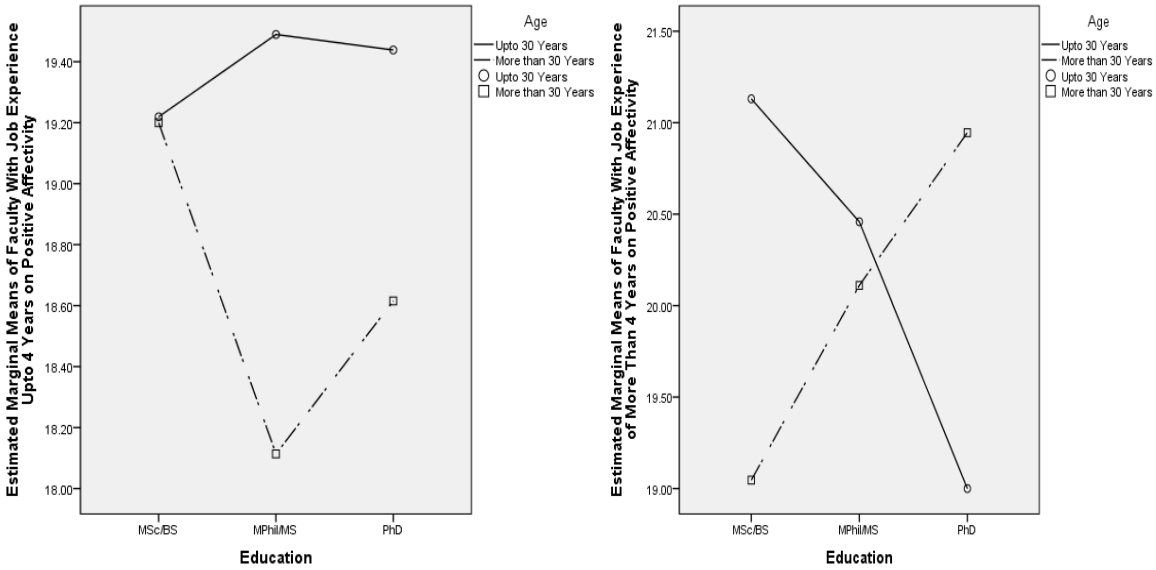

Figure 78. Interactive effect of age, qualification, and job experience on positive affectivity

In case of faculty with 4 or less than four years of job experience, positive affectivity is high in teachers with 30 or less than 30 years of age at MPhil and PhD levels of academic qualification as compared to their elder counterparts. For faculty with job experience of more than 4 years, qualification is positively related to positive affectivity for elder group of teachers whereas this relationship is reversed for the younger group.

The next three way significant multivariate interactive effect is made by age, qualification, and gender. In terms of post hoc analyses, it is revealed that this interactive effect was significant in relation to psychological ownership, territoriality, and positive affectivity. Figure 79 to 81 visually illustrate these interactions.

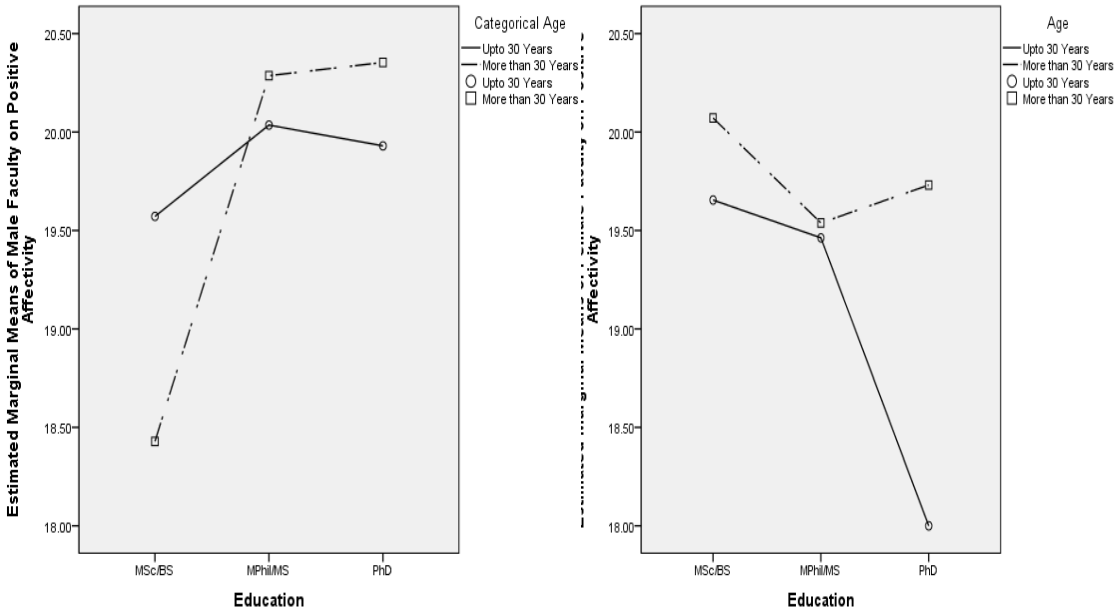

Figure 79. Interactive effect of age, qualification, and gender on positive affectivity

For male faculty members of both age groups, positive affectivity increases with advancement in qualification from masters to MPhil/MS level and then this relationship get stable for PhDs. Elder group of male teachers with 16 years of academic qualification have lowest positive affectivity. In case of female faculty, younger group of female teachers having PhD degrees have lowest mean score on positive affectivity.

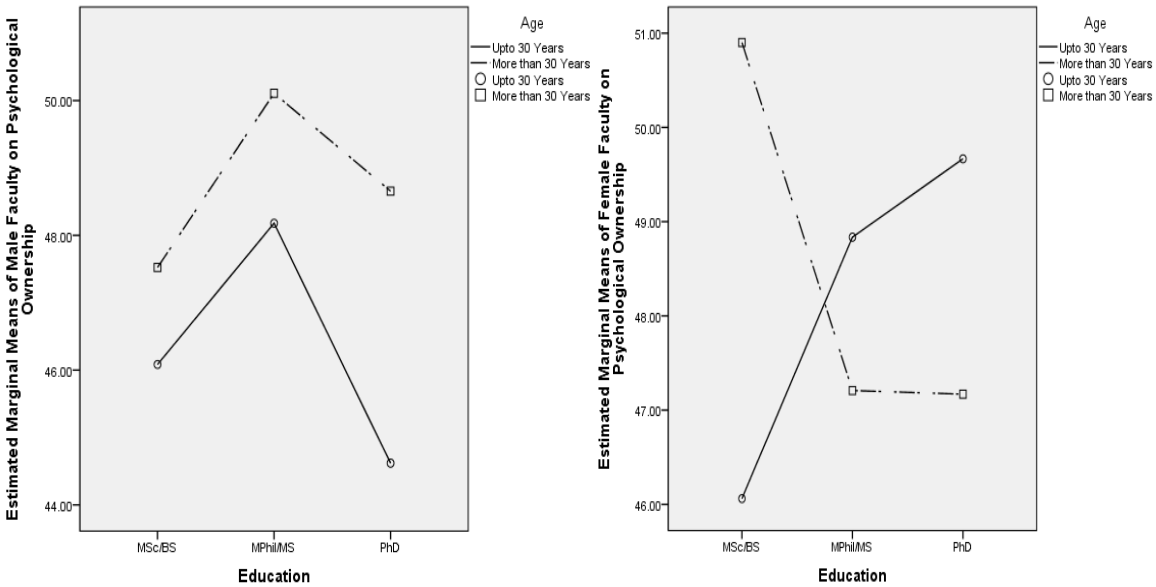

Figure 80. Interactive effect of age, qualification, and job experience on psychological ownership

The elder group among male faculty members scored higher on psychological ownership at all levels of academic qualification as compared to the younger group. However, for the younger group of female faculty education is positively related with psychological ownership whereas this relationship is somewhat reversed for the elder group.

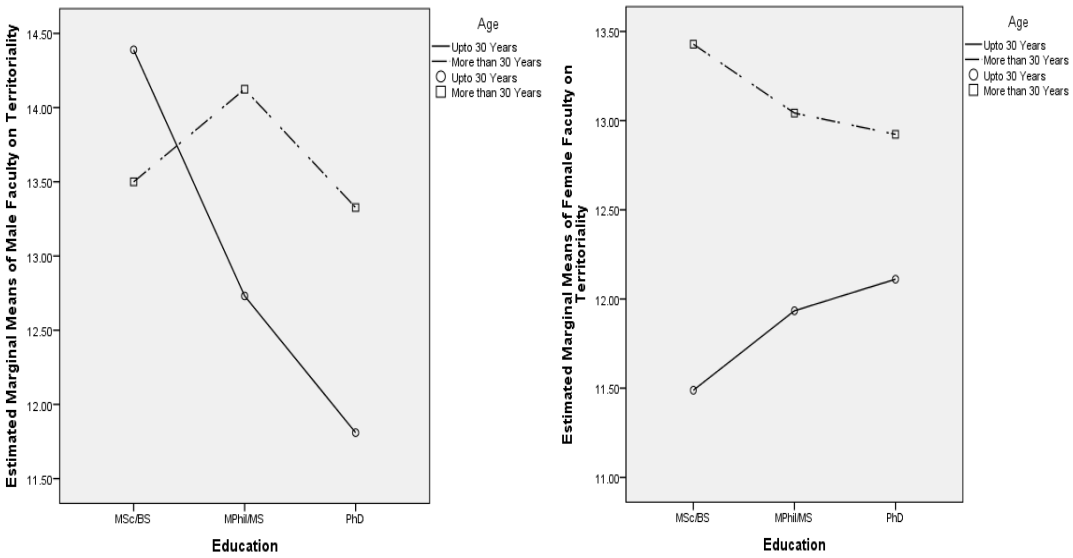

Figure 81. Interactive effect of age, qualification, and job experience on territoriality

For younger male faculty a negative relationship between education and territoriality is evident and younger faculty with PhD degrees has lowest mean score on territoriality. In contrast, for female faculty, the younger group with 16 years of academic qualification had lowest mean score on territoriality (see Figure 81).

Age, academic qualification, and job status interacted to produce a significant multivariate interactive effect. Post hoc analyses revealed that the interactive effects were significant in relation to psychological capital and job autonomy. Figure 82 and 83 present these interactive effects graphically.

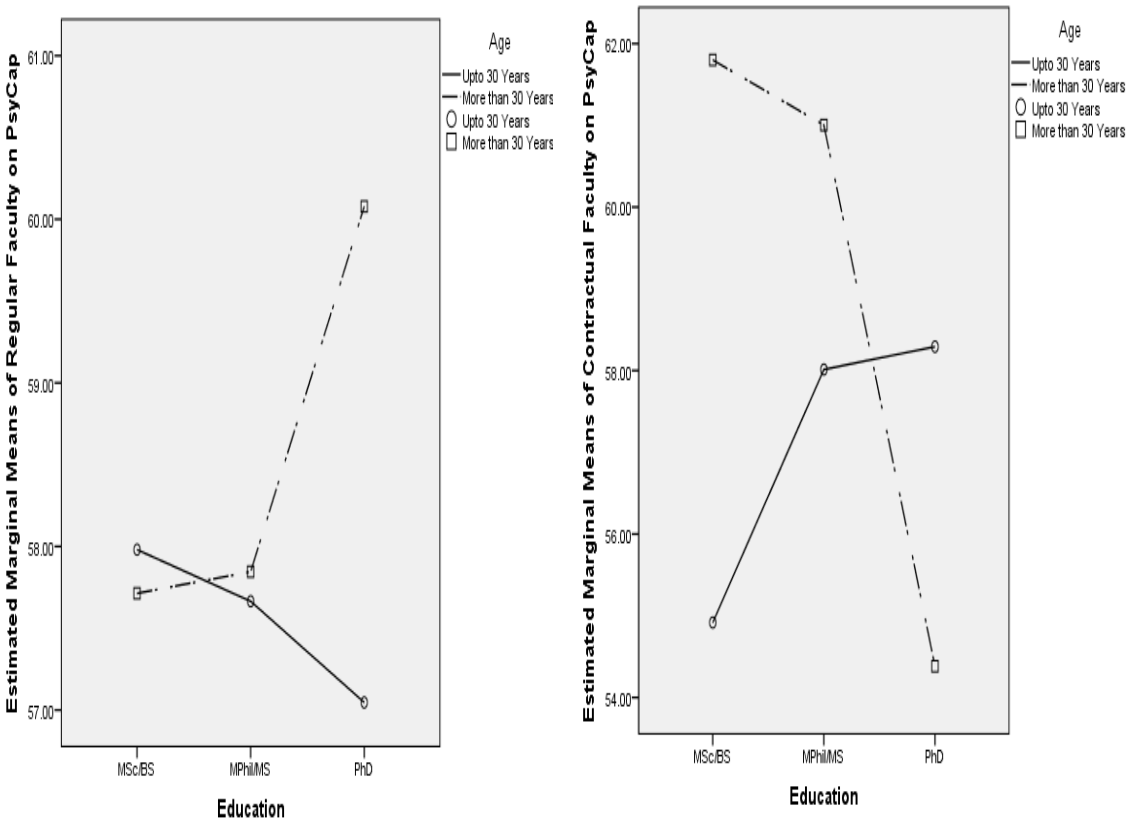

Figure 82. Interactive effect of age, qualification, and job status on psychological capital

As depicted in Figure 82, for regular faculty with more than 30 years of age, education has a positive relationship with psychological capital whereas for contractual faculty this relationship is reversed.

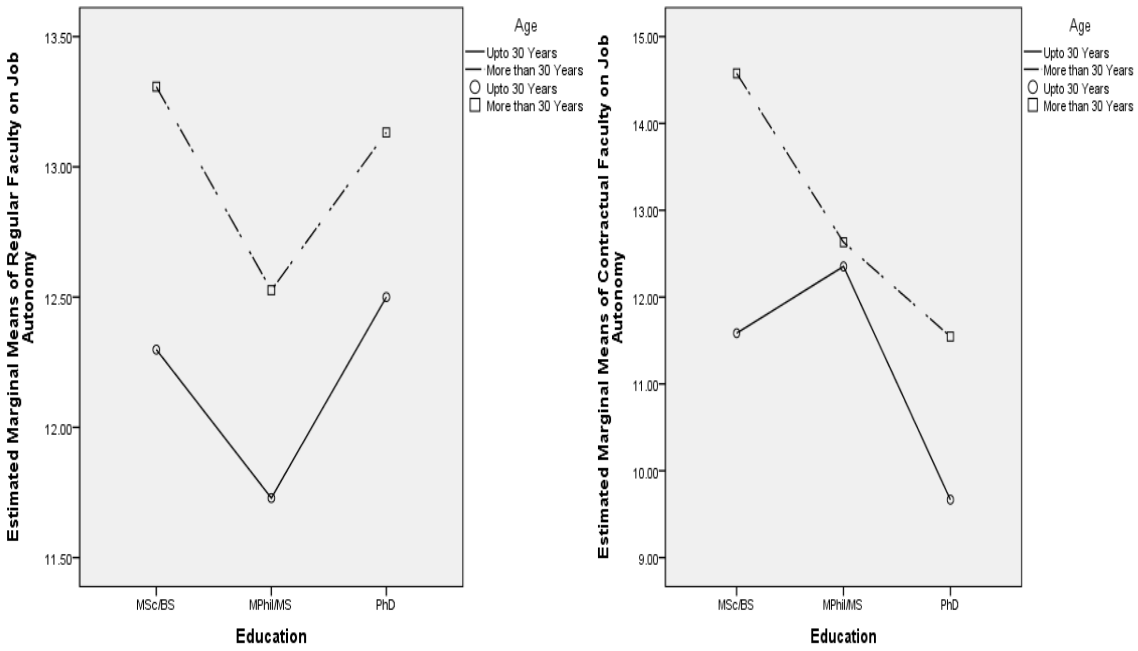

Figure 83. Interactive effect of age, qualification, and job status on job autonomy

For regular faculty members, teachers with more than 30 years of age enjoy greater job autonomy as compared to their younger counterparts. For both age groups, job autonomy is lowest for teachers with MPhil/MS degrees. In case of contractual faculty, job autonomy of teachers who are above 30 years of age and have 16 years of education is highest in comparison with the lowest job autonomy of younger teachers having PhD degrees.

Faculty, qualification, and job experience govern the next significant three-way interaction. This interaction effect was significant in relation to psychological capital, psychological ownership, and positive affectivity. Figure 84 to 86 delineates these interactions.

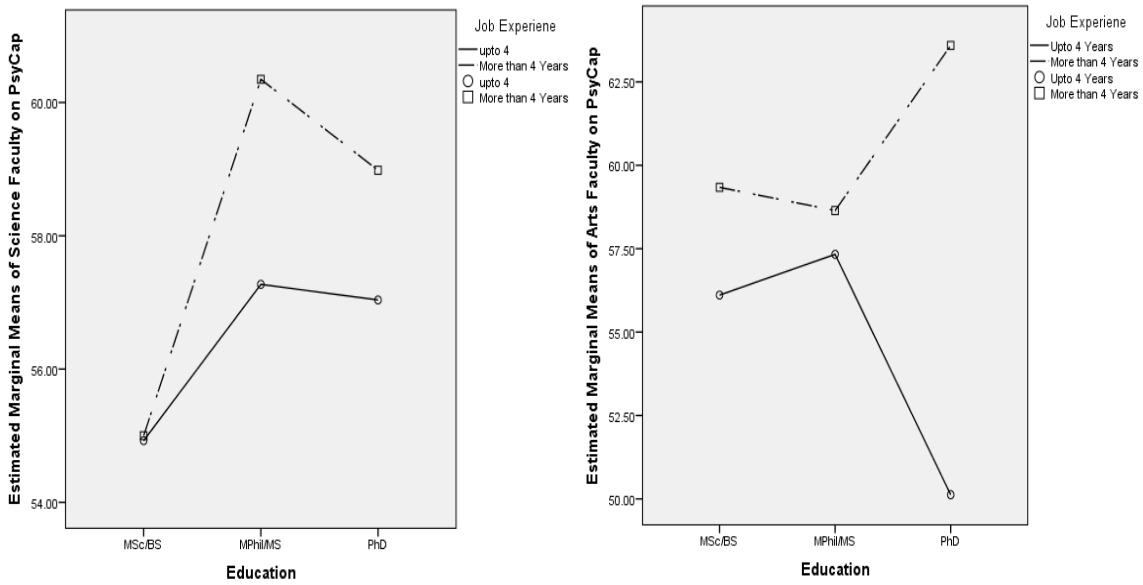

Figure 84. Interactive effect of job experience, qualification, and faculty on psychological capital

In case of science faculty, psychological capital of teachers having MPhil/MS degrees is greater than that of teachers having 16 years of education for both groups in terms of job experience. However, for faculty of arts and social sciences, teachers with PhD degrees having more than 4 years of job experience have highest mean score on psychological capital whereas teachers with PhD degrees having less than 4 years of job experience have lowest mean score on psychological capital.

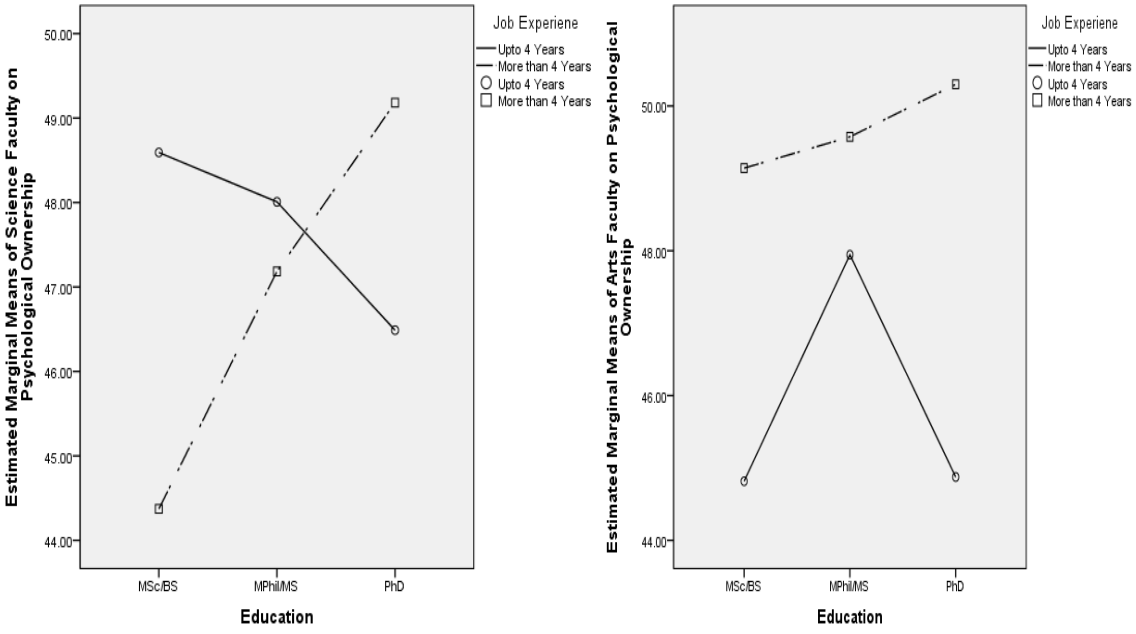

Figure 85. Interactive effect of job experience, qualification, and faculty on psychological ownership

Psychological ownership of science faculty with more than four years of experience is increasing with an advancement in academic qualification whereas mean level of psychological ownership remains nearly stable at all levels academic qualification for teachers having less than four years of job experience. In case of teachers of arts and social sciences, more experienced teachers have higher level of psychological ownership and it remains nearly stable at all levels academic qualification. However, for less experienced teachers, mean score of psychological capital is highest for teachers having MPhil/MS degrees as compared to their counterparts with 16 years of education or the PhDs.

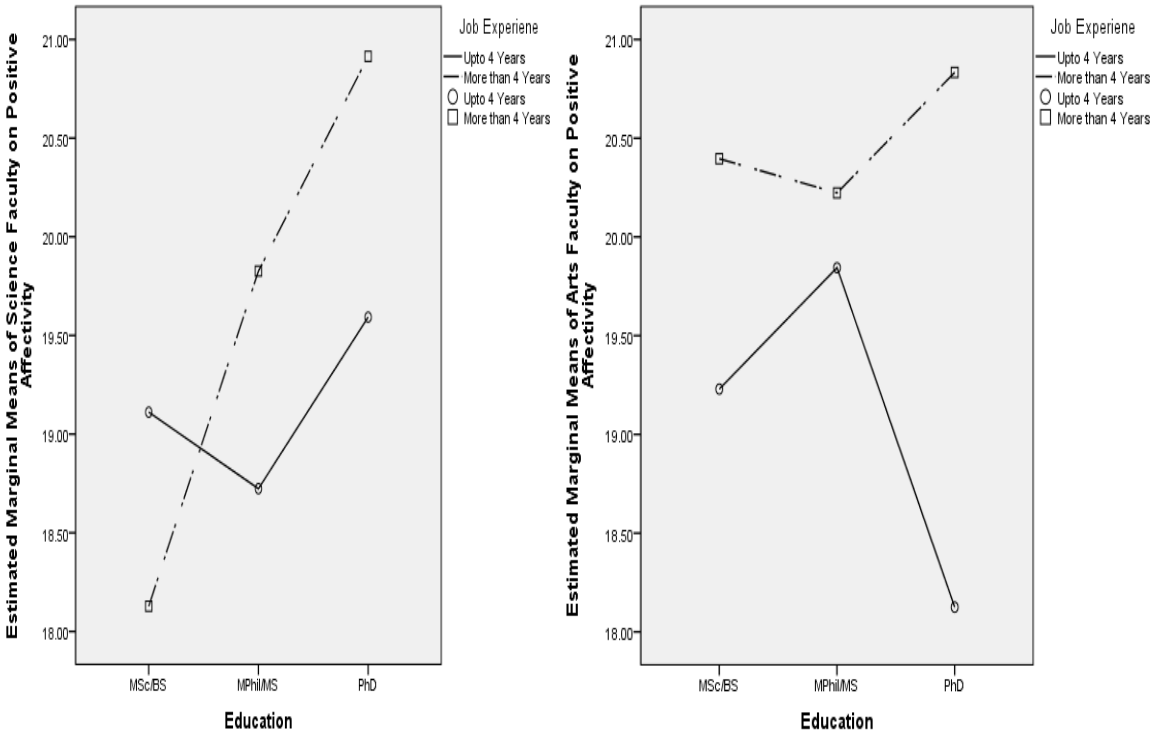

Figure 86. Interactive effect of job experience, qualification, and faculty on positive affectivity

For science faculty, positive affectivity of more experienced teachers increases with the advancement of their academic qualification, however, the experienced teachers having 16 years of education have lowest mean score on positive affectivity. In contrast, among teachers of arts and social sciences, PhD faculty having less than four years of experience have lowest mean score of positive affectivity. The experienced arts faculty has consistently higher score on positive affectivity at all levels of their academic qualification as compared to their counterparts with less job experience.

Faculty, job status, and experience interacted to produce a significant multivariate *F* test. Univariate post hoc analyses revealed significant interactive effect of these three demographic on psychological capital and job autonomy of university teachers. Graphical representations of these interactions are presented in Figure 87 and 88.

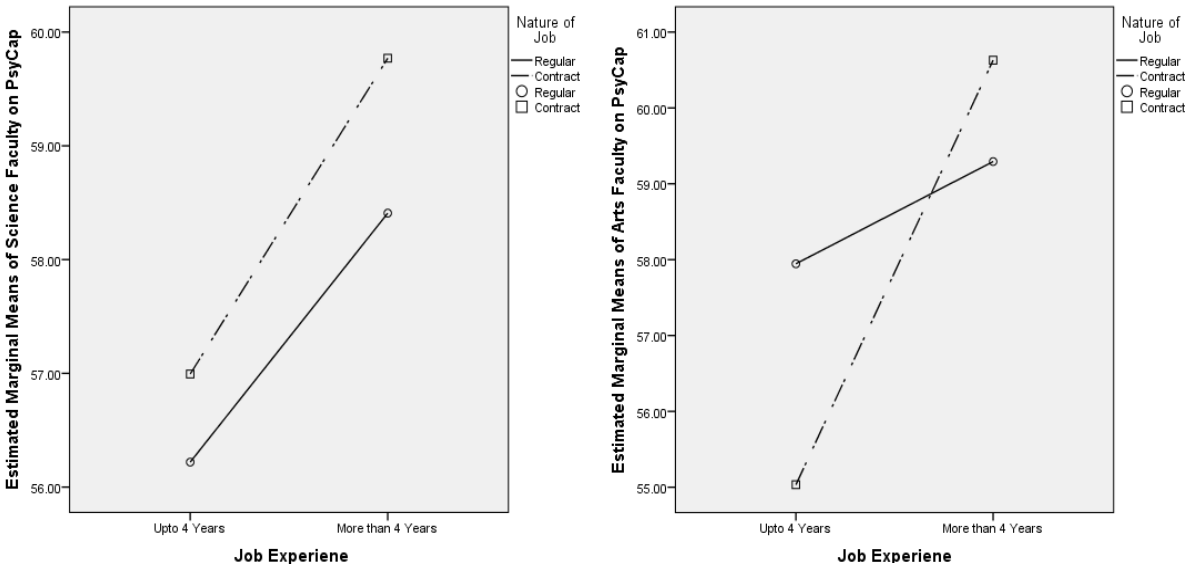

Figure 87. Interactive effect of job experience, job status, and faculty on psychological capital

Among science teachers, job experience is positively related with psychological capital for both regular and contractual faculty. However, contractual faculty is richer in psychological capital as compared to their regular counterparts. In case of arts and social sciences faculty, less experienced contractual teachers have lowest mean score on psychological capital whereas experienced contractual teachers have highest score on the same. Psychological capital of regular teachers does not show considerable fluctuation with job experience.

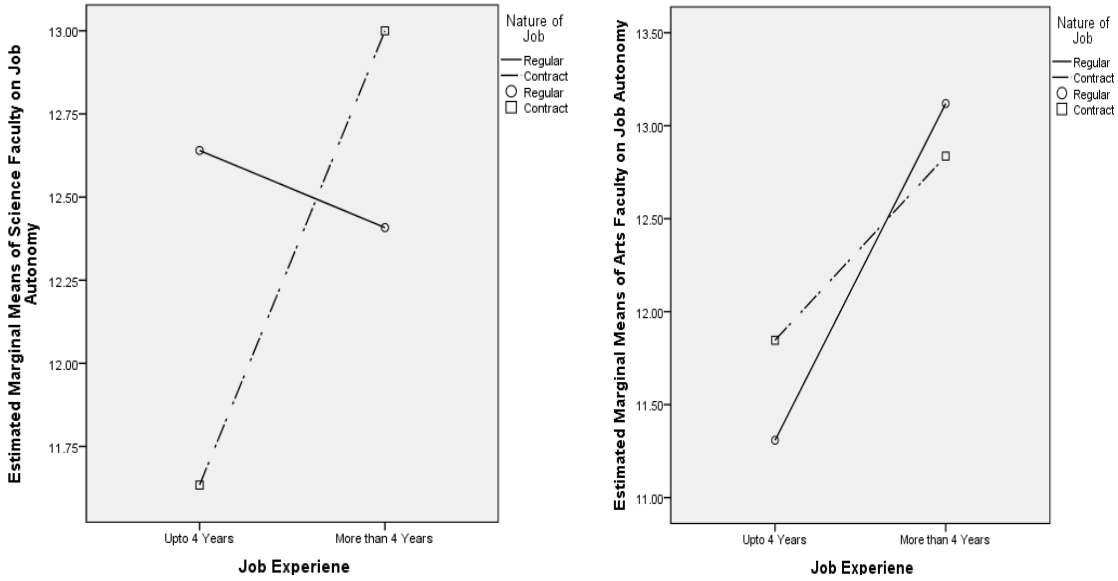

Figure 88. Interactive effect of job experience, job status, and faculty on job autonomy

In faculty of science, contractual employees with less job experience have lowest job autonomy whereas those with greater job experience have highest levels of job autonomy. In contrast, regular teachers of arts and social sciences having less experience have lowest job autonomy and those with more job experience enjoyed the highest levels of job autonomy.

Academic qualification, gender, and job experience demonstrated a three-way significant multivariate interactive effect. This effect was significant in relation to positive affectivity, territoriality, and burnout. Figure 89 to 91 visually illustrate these relationships.

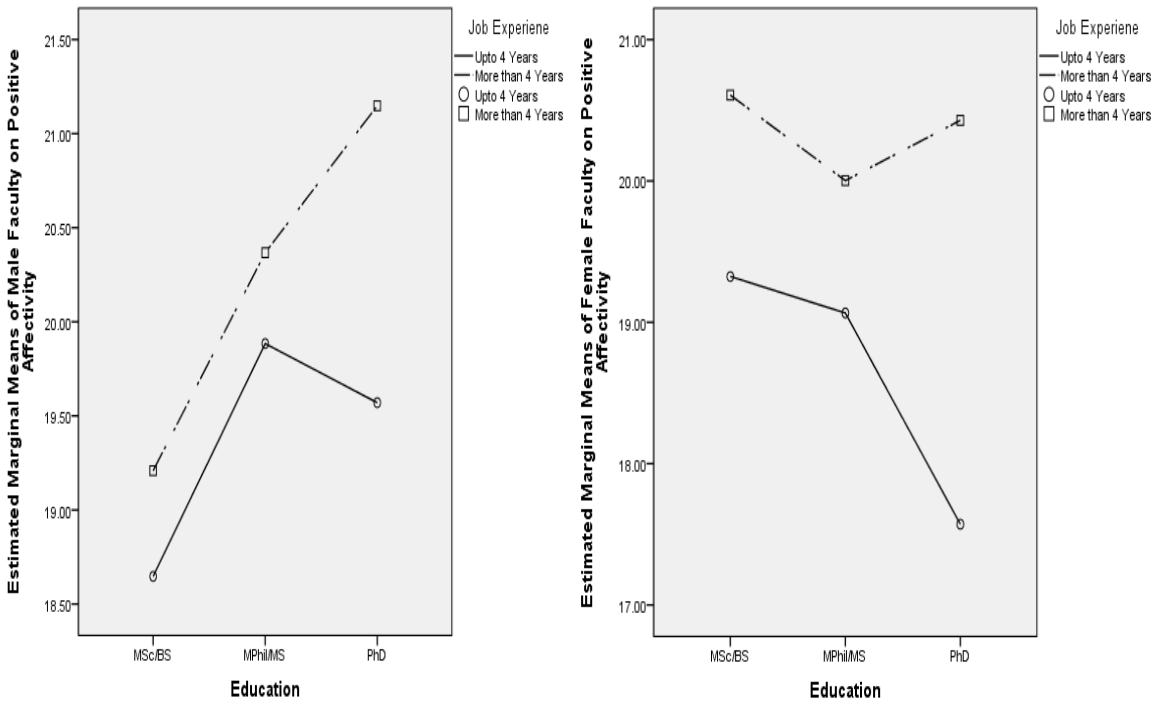

Figure 89. Interactive effect of job experience, qualification, and gender on positive affectivity

For male faculty with more experience, a positive relationship between positive affectivity and academic qualification is evident. Less experienced male teachers having 16 years of education were lowest on positive affectivity. In case of female faculty, less experienced female teachers having PhD degrees have lowest mean score on positive affectivity. Overall, experienced female teachers have higher levels of positive affectivity as compared to their less experienced counterparts.

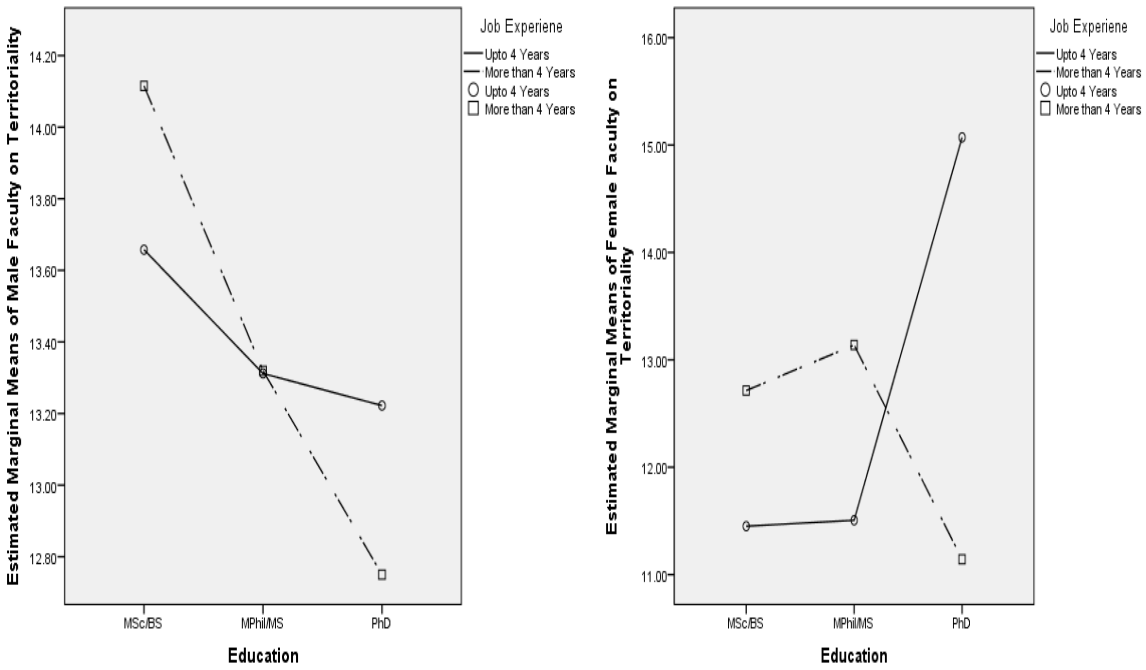

Figure 90. Interactive effect of job experience, qualification, and gender on territoriality

Experienced male teachers with 16 years of education have highest score on territoriality whereas experienced teachers having PhD degrees have lowest score on territoriality. In case of female teachers, less experienced teachers with PhD degrees have highest mean score on territoriality.

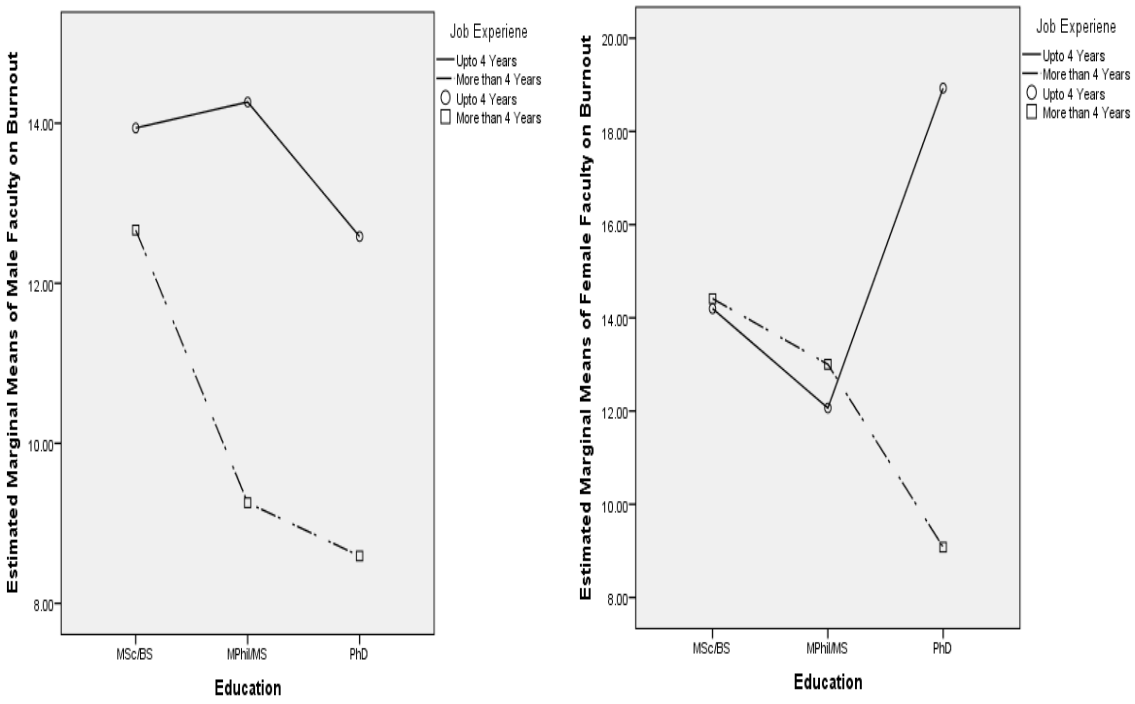

Figure 91. Interactive effect of job experience, qualification, and gender on burnout

For male faculty, experienced teachers have low mean score on burnout as compared to their less experienced counterparts at all levels of academic qualification. Experienced teachers having PhD degrees have lowest score on burnout. In contrast, for female faculty, burnout levels of more experienced and less experienced teachers having master's degree or MPhil/MS, degrees are comparable. Less experienced female teachers with PhD degrees are significantly higher on burnout as compared to their experienced counterparts.

The final significant multivariate three-way interaction was governed by gender, job status, and job experience. Post hoc analyses revealed five significant univariate interactive effects in terms of psychological capital, authentic leadership, social support, in-role performance, and counterproductive work behaviors. Figure 92 to 96 present these findings schematically.

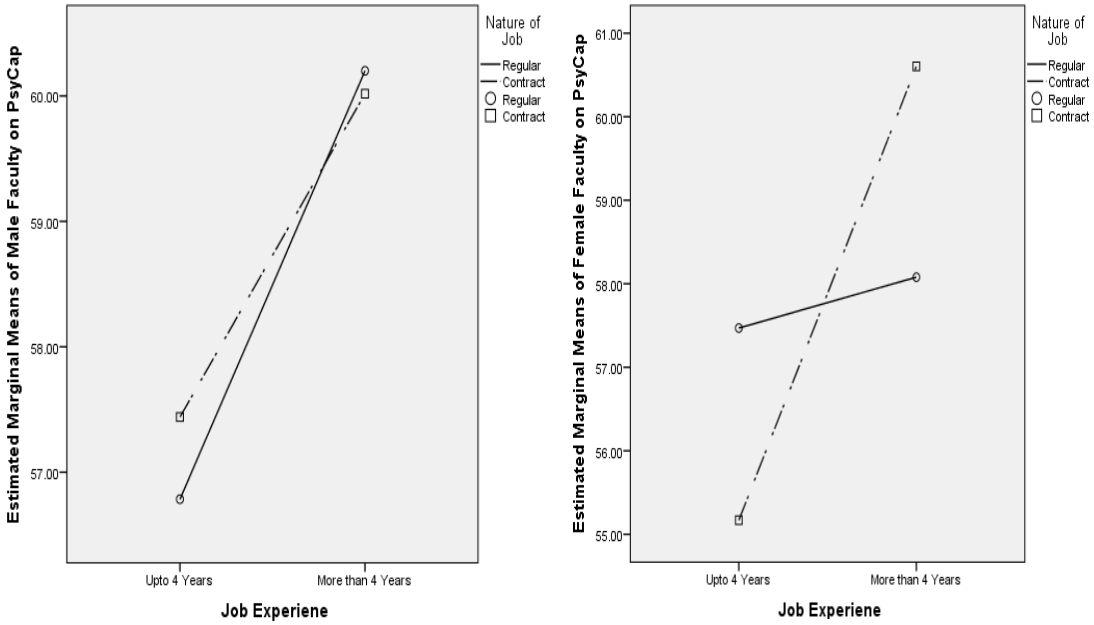

Figure 92. Interactive effect of job experience, job status, and gender on psychological capital

For male faculty, both the contractual and regular groups have comparable positive relationship between job experience and psychological capital. However, in case of female faculty, the contractual teachers with less job experience have lowest psychological capital and those who have lore job experience have highest psychological capital. For regular female teachers, psychological capital does not fluctuate with job experience (see Figure 92).

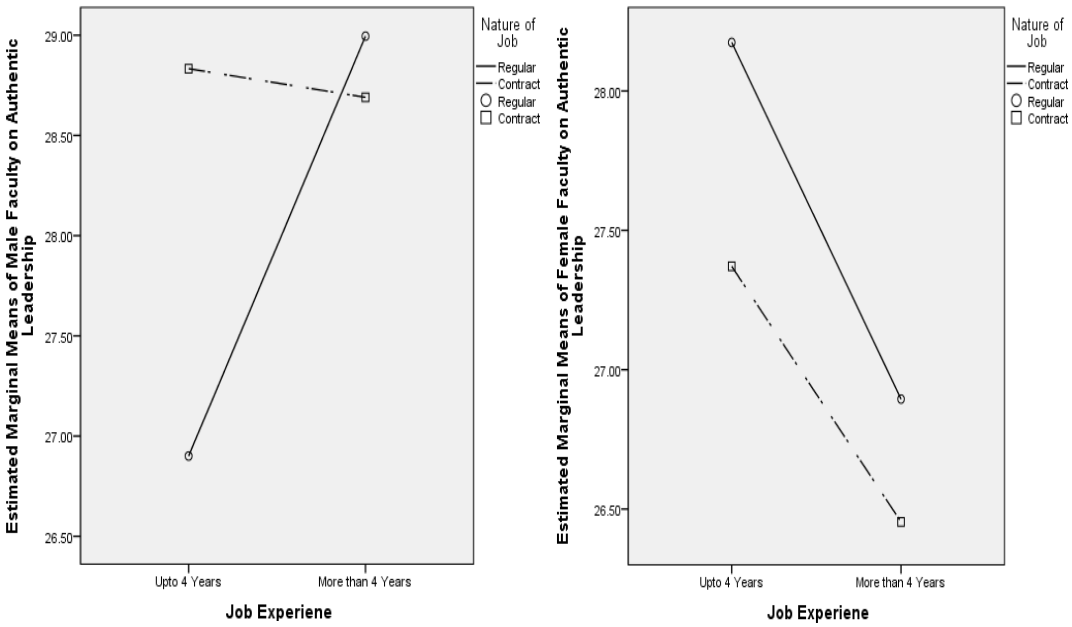

Figure 93. Interactive effect of job experience, job status, and gender on authentic leadership

As depicted in Figure 93, a positive relationship is evident between job experience and authentic leadership for regular employees. Authentic leadership does not fluctuate across job experience for contractual male teachers. In case of female teachers, job experience is negatively related to authentic leadership for both regular and contractual faculty. Regular female faculty with less experience has the highest perception of authentic leadership.

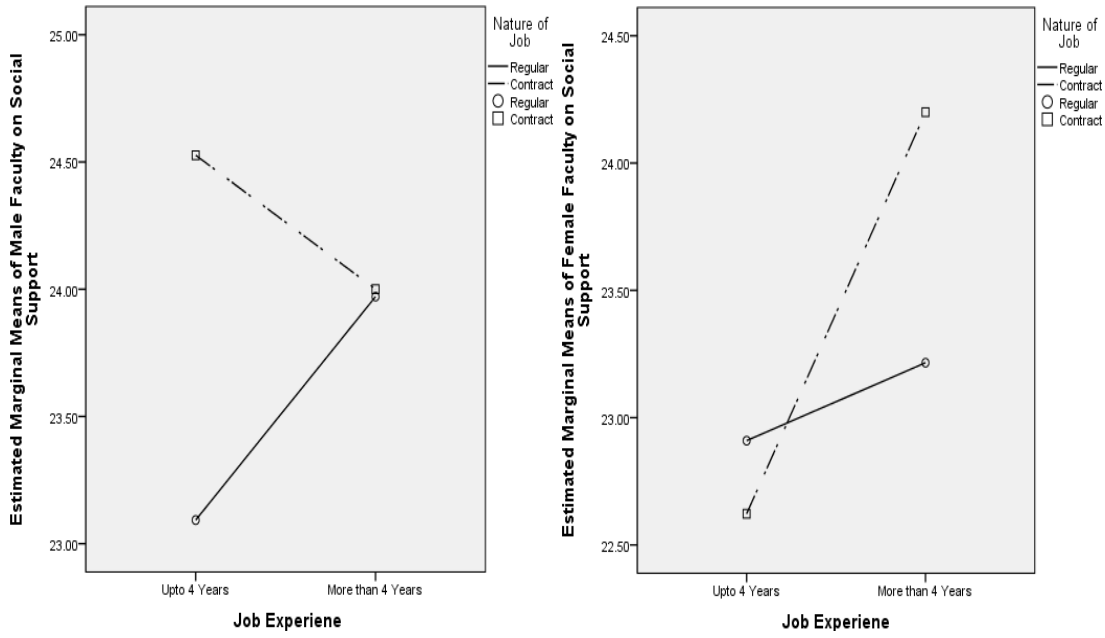

Figure 94. Interactive effect of job experience, job status, and gender on social support

Figure 94 illustrates a positive relationship between job experience and social support for regular employees and a relatively stable albeit negative relationship between the two for contractual faculty. In case of female faculty, there is a positive relationship between social support and job experience for contractual employees, however, for regular female university teachers; social support does not fluctuate with job experience.

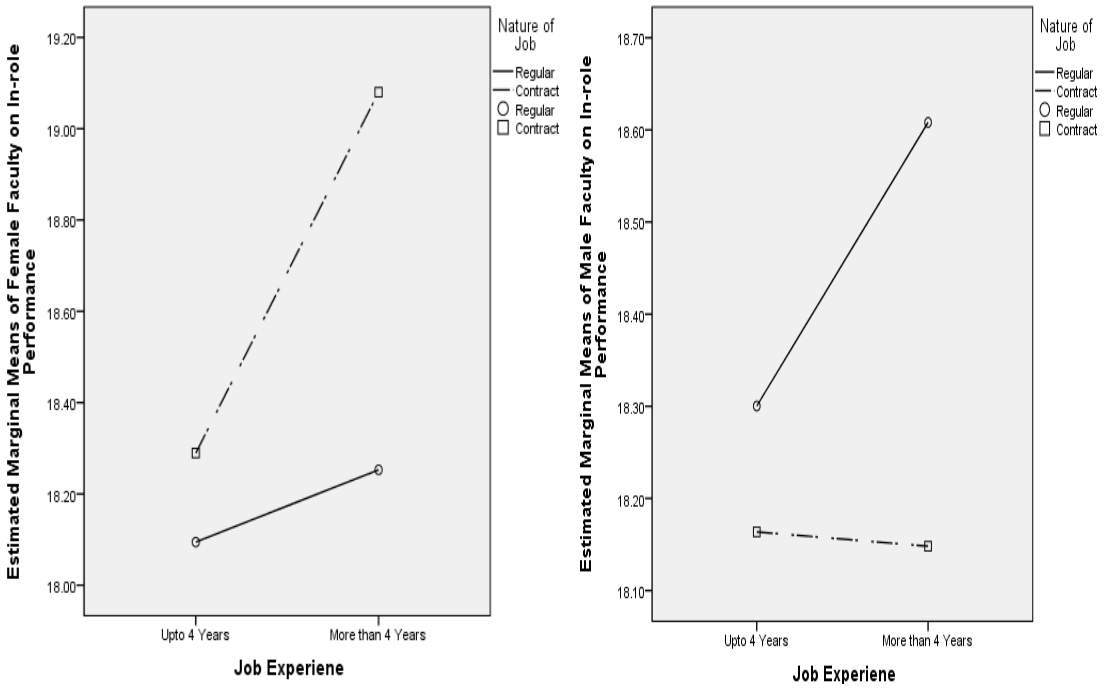

Figure 95. Interactive effect of job experience, job status, and gender on in-role performance

Figure 95 illustrates that for contractual male faculty, a positive relationship between job experience and in-role performance is evident, however, for regular employees in-role performance not related to job experience. In case of female faculty, this relationship is reversed. A positive relationship between in-role performance and job experience is evident for regular employees whereas no relationship exists between the two for contractual female faculty.

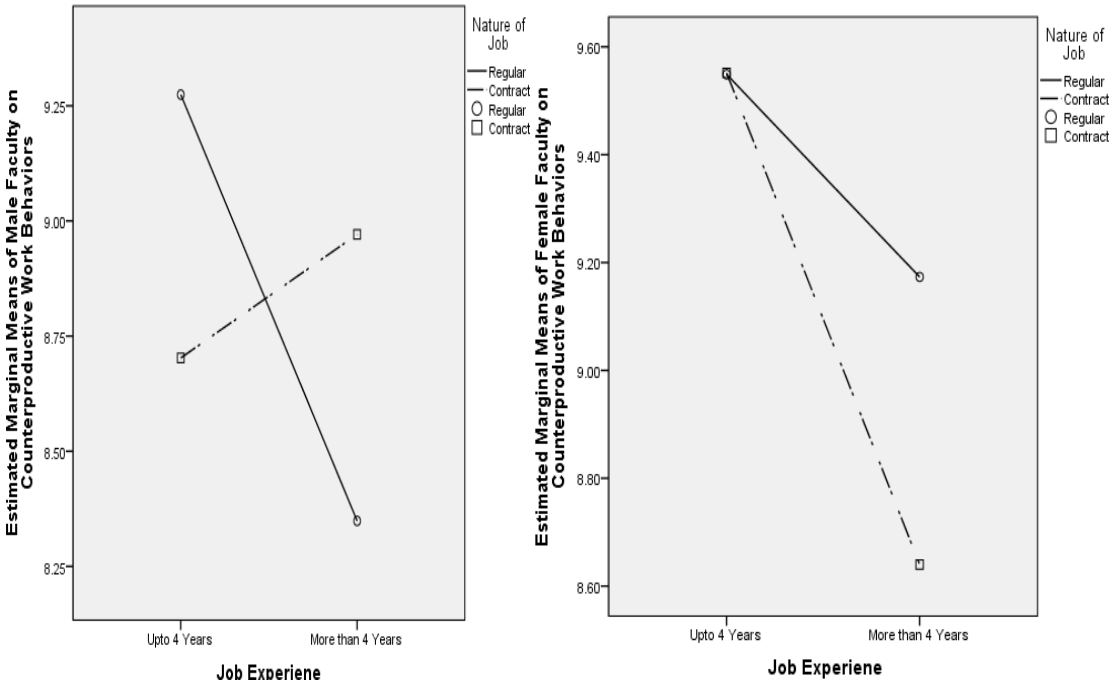

Figure 96. Interactive effect of job experience, job status, and gender on CWB

As delineated in Figure 96, regular and experienced male teachers have lowest mean score on counterproductive work behaviors whereas in case of female faculty, experienced contractual teachers have lowest mean score on the same.

Discussion of Main Study

This chapter has been written in order to explain salient findings of the present study in relation to pertinent theory and relevant literature. This chapter not only explains results of this study but also highlights the rationale as to their significance. Efforts have been made to integrate each finding in relevant literature to fill the gaps in existing research queries or to augment the findings of other researchers. Majority of the proposed hypotheses of this research were supported by the data (see Table 70).

This chapter is organized such that results of this study about relationships of psychological capital with various important work outcomes originate the chapter.

Then findings on work engagement in relation to psychological capital and various work outcomes are elaborated. This is followed by an explanation of relationships of psychological ownership with psychological capital, work outcomes, work engagement, and job autonomy. Outcomes of integration of psychological capital and psychological ownership as personal resources into Job Demands-Resources model (JD-R model) are elucidated next. Finally, the chapter closes with a discussion of significant moderators and significant influences of demographics of university teachers.

Psychological Capital as Predictor of Work Behaviors

The first and foremost objective of the present study was to examine how psychological capital may influence work behaviors including in-role performance, job related affective well-being, organizational citizenship behavior, counterproductive work behaviors, and burnout among university teachers of Pakistan. Our finding revealed that psychological capital directly predicted all the work behaviors in the expected directions except organizational citizenship behavior where only the indirect effect of psychological capital was significant. This section of discussion is meant to discuss our findings pertaining to the relationship of psychological capital and the aforementioned work behaviors in the occupational context of university teaching.

Psychological capital and in-role performance. The findings of present study have confirmed our hypothesis 1a as positive psychological capital (PsyCap) turned out to be positive and significant predictor of in-role performance (see Table 55). University faculty with higher levels of positive psychological capital is replete with the valuable positive capacities that can be capitalized for optimum in-role performance in professional context of universities. Teachers with high psychological capital have the belief that they can accomplish any given task by virtue of their high levels of self-efficacy. This belief galvanizes them making them hopeful about finding the ways and means to accomplish the assigned task with a positive and optimistic outlook towards their career and future. Finally, being resilient, such academician has

e the capacity not only to endure the snags but also to bounce back if thwarted by some obstacles in her/his path towards her/his goals. Therefore, such university teacher is likely to be on par with the best standards of in-role performance.

The present finding is quite in line with the pertinent literature as numerous studies have found a positive relationship between psychological capital and performance across various job sectors. Luthans, Avolio, Avey, and Norman (2007) found that psychological capital is a significant and better predictor of performance than its constituent factors of hope, resilience, optimism, and self-efficacy among high tech engineers, technicians, and management students. Similarly, Luthans, Norman, Avolio, and Avey (2008) confirmed the positive relationship between psychological capital and performance in engineers, employees of service sectors, and management students. Finally, in a meta-analytical study on 51 independent samples belonging to diverse occupational groups, Avey, Richard, Luthans, and Mhatre (2011) concluded that psychological capital is positively related with multiple measures of performance (including self-report, supervisor report, and objective measures). In the context of educational sector, Searle (2010) suggested a framework, which proposed that psychological capital of teachers and students might collaborate to facilitate academic performance within educational institutions. Searle further proposed that an increase in teachers' psychological capital might result in alleviated levels of individual performance, satisfaction, and commitment whereas an increase in PsyCap of students may positively affect their academic achievement.

Psychological capital and organizational citizenship behavior. An important premise of the present research was the hypothesized positive relationship between positive psychological capital and organizational citizenship behavior (Hypothesis 1b). This hypothesis was also supported, as psychological capital was a significant and positive predictor of OCB in the absence of positive affectivity as a control (see Table 57). The positive relationship between these two constructs can be defended on several fronts. Firstly, consistent with conception of OCB as positively oriented towards the organization (Lee & Allen, 2002; Smith, Organ, & Near, 1983), Norman, Avey, Nimnicht, and Pigeon (2010) argued that psychological capital could

be considered as an important predictor of OCBs. As a super-ordinate concept constituted by the amalgamation of optimism, self-efficacy, resilience, and hope, PsyCap appears to have more predictive power in relation to desirable work behaviors that promote the organization through informal work behaviors. Thus, it can be anticipated that psychological capital (PsyCap) may serve as precursor to those desirable work behaviors, which do not formally constitute faculty job description. Instead, these behaviors are voluntary in nature and serve to promote university itself.

Secondly, according to Norman et al. (2010), PsyCap is usually oriented towards goal achievement through one's capability of exploring various pathways (i.e., hope) to accomplishment. Some of these paths, being very novel, might have not been prescribed in the 'formal' job role. Thus, a university teacher rich in psychological capital might go extra mile in serving his/her department or the university. Being resilient and self-efficacious, s/he is not hesitant in trying new and innovative methods of teaching and research because s/he remains confident of her/his capabilities and while being persistent in her/his endeavors of goal achievement. S/he remains optimistic about the future and develops a positive attitude towards her/his students, colleagues, and the life in general. These qualities and extra-role behaviors are pragmatically and logically associated with one another and facilitate the successful goal achievement at both individual and organizational level. Indeed, previous research (Avey, Luthans, & Youssef, 2010) provides evidence that the combined PsyCap is more influential than its constituent elements of hope, efficacy, resilience, and optimism in relation positive work behaviors among employees.

Thirdly, pertinent positive psychological research augments the association between positivity and widened thought-action inventories (Fredrickson, 2001) which is suggestive of additional support for the hypothesized relationship. According to Fredrickson's broaden-and-build theory (1998, 2001), positive outlook, and emotions expand individuals' thinking pattern, their concentration and attention, and their behavior. This notion is also empirically augmented by Kahn and Isen (1993). These widened repertoires of behaviors may be reflected in terms of OCBs. Alternatively, it

can be inferred that the positive emotions inherent in PsyCap may result in expanded actions, which can be expressed as OCBs. For Fredrickson (2003), positive emotions of employees may contribute to their voluntary behaviors, such as sharing with or helping colleagues or supporting the organizational development through creative ideas and recommendations that usually do not fall in the realm of formal job description.

The present finding of this research entails significant empirical support as several studies have documented a positive relationship between psychological capital and OCB. Norman, Avey, Nimnicht, and Pigeon (2010), for instance, found that employees who are rich in psychological capital and have strong identification with the organization were more likely to demonstrate organizational citizenship behaviors with minimal chances of being engaged in organizational deviances. Similarly, Avey, Richard, Luthans, and Mhatre (2011) confirmed a positive link between the two construct in their meta-analysis. Avey, Wernsing, and Luthans (2008) also demonstrated that psychological capital is a significant and positive predictor of organizational citizenship behavior and this relationship was mediated by positive emotions. Finally, Avey, Luthans, and Youssef (2010) found a positive association between psychological capital and extra-role performance whereas turnover intentions, organizational cynicism, and counterproductive work behaviors were negatively related to psychological capital.

Psychological capital and job related affective well-being. The findings of present research supported our hypothesis 1c, as psychological capital turned out as a significant and positive predictor of job related affective well-being (see Table 60). A university teacher who is rich in psychological capital is likely to be satisfied with her/his job since s/he is performing at best and can meet any challenge posed to him/her. Besides, s/he is very optimistic not only about his/her own career and prospects but also have a bright view of her/his students' future. Her/his higher level of self-confidence makes her/him instrumental towards his/her own goals and s/he also facilitates her/his students in attaining their objectives. These capabilities coupled with his endurance, persistence, and diligence in the face of adversities equip him/her

with personal resources that help cope with job demands and occupational stressors that characterizes the profession of university teaching. Personal resources are employees' cherished beliefs and they could be instrumental in attaining other resources such as motivation, objects, or working conditions (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Employees having personal resources are more successful and happy because they are more likely to successfully cope with challenges and take advantage of prospects. Thus, being instrumental in goal achievement, personal resources boosts personal development (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Studies have demonstrated that personal resources have positive impact on well-being (Judge, Bono, Erez, & Locke, 2005; Judge, Van Vianen, & De Pater, 2004). PsyCap being a very powerful personal resource has consistently been linked to emotional, mental, and physical well-being among employees (Avey, Luthans, Smith, & Palmer, 2010; Gallagher & Lopez, 2009).

This finding of the present research is also supported by the pertinent literature as Cole (2006) in wave 4 cross-sectional data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey (N = 9777) found that psychological capital significantly influences well-being in a positive way. Cole argued that a person's psychological capital significantly influences his/her well-being, which helps facilitate re-entry into the labor market. Furthermore, individuals with high levels of psychological capital are likely to be more driven to engage in job search activity, making them attractive to potential employers. Psychological capital may also facilitate employees remain in their employment by positively affecting their attitudes to work.

Singh and Mansi (2009) examined the relationship of optimism and self-efficacy with psychological well-being and found that psychological capital positively influences psychological well-being. According to them, optimists are more achievement oriented in any task in their life, feel easy in taking decisions, and take better solution in handling life problems. Such individuals report a higher quality of life (Powers, 2004) and generally believe that people and events are inherently good,

so that most situations work out in the end for the best. Similarly, people with higher levels of self-efficacy are more confident, assertive, have high aspirations and strong commitment to the goals they choose to pursue. High self-efficacious people manage and cope with their threat experience than inefficacious people who distress themselves and impair their level of functioning in stressful situations. Individuals with stronger general self-efficacy reported higher level of subjective well-being (Tong & Song, 2004). Self-efficacious people are more capable of regulating positive and negative affect and interpersonal relationships, which make them optimistic about the future. They are more satisfied with their lives and maintain a high self-concept, which results in greater experiences of more positive emotions (Vittorio & Steca, 2006)—all leading to enhanced job related affective well-being.

Avey, Luthans, Smith, and Palmer (2010) found that as a positive psychological resource, PsyCap was positively associated with two measures of well-being and explained small but significant variance over time. According to Avey et al. (2010), the positive association between state-like, developable PsyCap and psychological well-being suggests a viable source of testing the differential impact of interventions through which PsyCap can be developed for fostering employee well-being in the workplace. Thus, findings of the present study in conjugation the aforementioned studies provide empirical evidence that positive resources such as employees' PsyCap may lead to the desirable outcome of their psychological well-being over time.

Psychological capital and counterproductive work behaviors. Psychological capital was found to be negatively related with counterproductive work behaviors, thus our hypothesis 2a that psychological capital predicts organizational deviance inversely was also supported (see Table 63). Fox and Spector (1999) reasoned that individual stressors at the workplace, which are typically yielded by behavioral constraints, may lead to counterproductive work behaviors as the individual rebels against or reacts to the constraint. For instance, a line employee trying to cope up with mounting strains for additional output might deliberately incapacitate the assembly line to reduce the work pace which may allow him/her to

catch up. Norman, Avey, Nimnicht, and Pigeon (2010) suggested that PsyCap is a positive construct because each of its constituents is instrumental in bringing about success and achievement. This line of reasoning implies that negatively oriented behaviors are fundamentally counter-productive to goal accomplishment.

The constituent factors of PsyCap can also specifically be weighed against deviance or CWBs. Snyder (2000, 2002) proposed that hope leads to dual positive corollaries of finding ways to attain organizational and individual goals and the goal achievement itself. By nature then, CWBs are inherently contradictory to these goals and therefore, may depart from behaviors that are typically expressed while being hopeful. Resilience is geared toward positive adjustment when confronted with oppositions. Thus, instead of focusing on negative emotions and sarcasm, resilient employees seek positive responses and adaptations. CWBs cannot be classified as positive adaptations and therefore, resilient individuals are least likely to be indulged in them. Self-efficacy constitutes the source of confidence and motivation that the given task can be successfully accomplished. In contrast, CWBs elucidate behaviors that are demotivating in relation to organizational objectives. Therefore, individuals who are likely to succeed on a task would avoid CWBs. Finally, optimism yields a generally positive outlook towards future. Since CWBs are bound to produce negative outcomes, they are least likely to be demonstrated by optimistic employees.

Norman's et al. (2010) proposition about the negative relationship between psychological capital and organizational deviance has empirically been supported not only in their own study but also in meta-analysis by Avey, Richard, Luthans, and Mhatre (2011) who found psychological capital as negative and significant predictor of organizational deviance. Similarly, Avey, Wernsing, and Luthans (2008) confirmed the negative association between PsyCap and counterproductive work behaviors. Avey, Luthans, and Youssef (2010) have also reported negative relationship between the two construct across a broad cross section of organizations and jobs.

Psychological capital and burnout. Burnout was the last work related outcome that was examined in relation to psychological capital in the present study.

Hypothesis 2b of this study proposed that burnout would be negatively related to psychological capital and the findings have confirmed this relationship (see Table 67). This is a very salient finding of the present study as university teaching is one of the most vulnerable occupations to burnout. As per results of the present study, university faculty can be shielded from burnout through the development of psychological capital. All employees who are exposed to the same environment and circumstances respond differently to their job demands and occupational pressures. Some employees develop burnout while others do not. This would imply that burnout may not only be a result of excessive, direct occupational related pressures, but it could also be affected by non-work pressures, like individual differences (such as personality, emotional intelligence, or personal attributes). According to Schaufeli and Bakker (2001), research on Burnout has found that some employees, regardless of high job demands and long working hours, did not develop burnout. A positive psychological perspective would contribute this phenomenon to the effects of certain psychological strengths and characteristics, which could prevent burnout (Schaufeli & Bakker, 2001). PsyCap constitutes a very powerful personal resource that help preserve in difficult circumstances or challenging work environments. Yardley (2012) reasoned that low levels of PsyCap could be linked with burnout in employees. When employees invest large amounts of effort and personal resources into their jobs without receiving appropriate outcomes such as learning, promotion opportunities, or positive feedback, they may experience burnout due to this depletion of resources (Schaufeli & Salanova, 2011). A person low on psychological capital lacks in important cushioning assets that can shield him/her from the adverse consequences of job demands and occupational stress. According to Yardley, in the absence of such buffering mechanism, the employee who disburses large quantities of energy (physical, emotional, and mental) and faces disappointing outcomes will lose the ability to reframe negative situations into positive challenges (through the use of hope, self-efficacy, optimism, and resilience) and this incapability may then result in burnout. Evidence that PsyCap has the ability to reduce burnout in individuals is important for universities as an opportunity to prevent or reduce burnout related to the workplace.

Several empirical evidences are available which support the inverse relationship between psychological capital and burnout. For instance, Laschinger and Grau (2012) found that psychological capital is negatively related to emotional exhaustion and bullying in nurses. They have also found indirect effects of psychological capital on burnout, bullying, physical and mental health through person-job fit. Wang, Liu, Wang, and Wang (2012) found that psychological capital might serve as a positive resource to reduce the negative effect of work-family conflict on burnout of doctors. Wang, Chang, Fu, and Wang (2012) emphasized the need of developing psychological capital among nurses to as they found that PsyCap mediated the effects of work-family conflict on emotional exhaustion and cynicism, and also mediated the effects of family-work conflict on emotional exhaustion, cynicism and professional efficacy. Cheung, Tang, and Tang (2011) found that psychological capital not only negatively predicted burnout but also moderated between emotional labor and burnout among Chinese school teachers such that teachers who were low on psychological capital were more likely to be burnt out because of emotional labor. Salanova (2004) developed a model whereby positive sources of self-efficacy beliefs, like past success and positive emotions, increase self-efficacy beliefs, which in turn increase well-being and performance. They also found evidence that weak self-efficacy beliefs result in increased levels of burnout and poor performance. Furthermore, in a study among 2249 Norwegian teachers in elementary and middle schools (Skaalvik & Skaalvik, 2010), self-efficacy was negatively related to burnout. Chang, Rand, and Strunk (2000) found that optimism predicts burnout (and specifically exhaustion), even after the effects of stress were controlled for. Optimism probably promotes wellness through its role in more positive appraisals of challenges posed by a lack of job resources (see Nelson & Simmons, 2003).

It should be noted that high levels of PsyCap will not necessarily eliminate feelings of occupational stress and burnout, as stressors are inevitable in the work place and arises from job characteristics and the work environment, which is external to the individual and usually beyond the individual's control. However, PsyCap may assist individuals to deal with their occupational stress more effectively, preventing

them from suffering the unpleasant consequences that is brought about occupational stress and burnout (Herbert, 2011).

Work Engagement in Relation to Psychological Capital and Work Behaviors

The current study has conceptualized work engagement not only as the significant predictor of various work behaviors (in-role performance, organizational citizenship behavior, job related affective well-being, counter productive work behaviors, and burnout) but also as a mediator of the relationship between psychological capital and the aforementioned work behaviors. Majority of our hypotheses pertaining to direct and indirect effects of work engagement on various work behaviors were supported. The following section is couched to discuss these findings.

Work engagement and psychological capital. Work engagement not only predicted in-role performance, extra role performance, and affective well-being in positive direction but also partially mediated the relationship of psychological capital with these variables. Thus, our hypotheses were supported. The finding that psychological capital is positively related with work engagement (supporting our 4th hypothesis, see Table 54) can be explained in the framework of job demands-resources model according to which psychological capital can be conceptualized as state-like personal resources. Personal resources are individual's valued beliefs, which are associated with resiliency and reflect their perceived capability of regulating and influencing their environment effectively (Hobfoll, Johnson, Ennis, & Jackson, 2003). Research has demonstrated that such positive beliefs are important predictors of performance, goal setting, job and life satisfaction, motivation, and other positive outcomes (for a review, see Judge, Van Vianen, & De Pater, 2004). This can be explained in terms of direct relationship between personal resources and positive self-esteem. Thus greater the personal resources, greater the positive self-regards and goal concordant behaviors and vice versa (Judge, Bono, Erez, & Locke, 2005). Intrinsically motivated individuals usually demonstrate goal self-concordance, which lead them to higher levels of satisfaction and performance (see also Luthans &

Youssef, 2007). Thus, employees who are high on psychological capital are more likely to be on work engagement.

This line of reasoning is also supported by empirical research that has indeed demonstrated a positive relationship between personal resources such as psychological capital and work engagement (see Salanova, Schaufeli, Xanthopoulou, & Bakker, 2010, for an overview). Firstly, hope empowers an individual to invest energy in persistently pursuing a goal, i.e., in being engaged (Gallagher & Lopez, 2002) because hope involves identifying various pathways to the goal and a persistent effort to accomplish it (Sweetman & Luthans, 2010). Secondly, optimists usually undertake active coping strategies because of which they are more effective in regulating their environment (Iwanaga, Yokoyama & Seiwa, 2004), and consequently they are more engaged in their work (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Thirdly, self-efficacy provides impetus for persistence in goal pursuit even in the face of uncertainties and obstacles (Bandura, 1997). Employees who are high on self-efficacy are reported to experience higher levels of engagement (e.g., Llorens, Schaufeli, Bakker, & Salanova, 2007; Salanova, Llorens, & Schaufeli, 2011) and flow (Salanova, Bakker, & Llorens, 2006). Schaufeli and Salanova (2007) believed in a positive association between self-efficacy and engagement because self-efficacious people are more likely to invest additional energy and effort in task completion, and are more absorbed and engaged in their task. Finally, resilience is fundamentally one's capability of bouncing back and even flourishes among negative taxing conditions (Luthans, Vogelgesang, & Lester, 2006). As aptly pointed out by Masten and Reed (2002), resilient individuals not only endure difficult times, but may also prosper via positive adaptations. Thus, resilience may serve as a buffer that sustains work engagement even in straining job demands (Bakker, Demerouti, & Euwema, 2005). Hope, optimism, efficacy, and resilience, when combined in the form of PsyCap yield synergetic effect, which appears to be a strong precursor of work engagement.

Longitudinal stream of research also points in the same direction as various empirical investigations have established that personal resources, like optimism and

self-efficacy, are powerful predictors of engagement (Avey, Luthans, Smith, & Palmer 2010; Ouweneel Le Blanc, & Schaufeli, 2011; Xanthopoulou Bakker, Demerouti, & Schaufeli, 2009). Self-efficacy is especially a strong predictor of engagement (Salanova, Llorens, & Schaufeli, 2011). Self-efficacious employees are more likely to invest extra exertions and thus, they are more involved and engrossed in their tasks (Schaufeli & Salanova, 2007). Efficacious individuals are also more likely to be engaged because they set challenging goals for regulating their motivation (Diseth, 2011).

The positive relationship between work engagement and psychological capital has been documented in several studies. For example, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) investigated the relationship of three personal resources (organizational-based self-esteem, self-efficacy, and optimism) with work engagement in a sample of highly skilled Dutch technicians. Their findings revealed that engaged employees are more self-efficacious and have strong beliefs in their capabilities of meetings demands across a variety of contexts. Moreover, engaged workers were quite high on optimism and considered that their needs can be satiated through acting out their ascribed roles in the organization (organizational-based self-esteem; see also Mauno et al., 2007). A 2-year follow-up study by Xanthopoulou, Bakker, Demerouti, and Schaufeli (2008) replicated and elaborated upon these findings. The results of this longitudinal study revealed that optimism, self-efficacy, and organizational-based self-esteem uniquely contributed in the explained variance of work engagement over time and beyond the impact of previous levels of engagement and job resources. In a similar vein, Bakker, Gierveld, and Van Rijswijk (2006) found that the most engaged female school principals were those who had broadest repertoire of personal resources. Resilience, optimism, and self-efficacy were particularly important in predicting work engagement and explained unique variance in engagement beyond the influence of social support from team members and colleague principals, opportunities for growth, and social support from the intimate partner.

Work engagement, in-role performance, and extra role performance. As already mentioned, our findings delineated work engagement as significant and positive predictor of in-role performance, extra role performance, and job related affective well-being providing support to hypotheses 33, 34, and 35 of the present research respectively (see Tables 54, 58, & 61). Bakker (2008) has very eloquently mentioned four reasons, which explain the difference between performance of engaged and non-engaged employees. Engaged worker: (a) usually experience more positive emotions such as joy, happiness, and enthusiasm; (b) transfer their engagement to others (c) construct their own job and personal resources (e.g., support from coworkers); and (d) are usually psychologically and physically healthier. Bakker, Schaufeli, Leiter, and Taris (2008) reasoned that being healthy ensures better performance because healthy individuals are better able to utilize their mental and physical resources (abilities, skills, knowledge, etc.) whereas positive emotions widen individuals' thought-action repertoire (Fredrickson, 2003). In addition, individuals who are capable of generating their own resources are more effective in dealing with their job demands and attaining their work goals (Bakker & Demerouti, 2007).

Employee engagement is essentially a positive orientation of employees towards their organization and its norms. Engagement reflects one's dedication of investing one's cognitive, physical, and emotional resources in one's job and therefore, it may lead to improved job performance. Kahn (1990) also supports this line of reasoning when he asserts that by approaching the job task with dedication and enthusiasm, engaged employees are likely to demonstrate higher levels of in-role and extra-role performance. Their increased concentration, vigilance, and involvement in their job tasks positively contribute to their job performance. For engaged employees, work in itself is a source of motivation and they identify themselves with their job. Consequently, they are more likely to work productively for yielding desirable outcomes, which are demanded by the clientele and the organization (Ariani, 2013). An engaged employee, who dedicates physical, cognitive, and emotional resources to their work, should translate into higher levels of both task and contextual performance (Christian, Garza, & Slaughter, 2011). Similarly, Reijseger, Schaufeli, Peeters, and

Taris (2012) proposed that work engagement should have a positive effect on extra-role behavior as well as on in-role behavior due to a broadened cognitive open-mindedness.

As far as the relationship between OCB and work engagement is concerned, consistent with Bakker's (2008) idea that engaged employees produce their own personal resources, Ariani (2013) reasoned that high level of engagement might serve as an impetus for proactive behaviors, which may lead to extra-role behaviors. Engaged employees are more likely to develop a social work milieu, which is encouraging for voice, collaborative work, helping, and other discretionary behaviors that may enhance organizational effectiveness (Podsakoff, Whitting, Podsakoff, & Blume, 2009). The positive association of engagement and OCBs is justified because engaged employees not only fulfill their formal role requirements, they also invest extra efforts in performing other activities that transcend their formal job role. By accomplishing their tasks efficiently, engaged employees are able to "free up" resources, which enable them peruse activities that are not the formally ascribed to them in their job descriptions (Ariani, 2013). Engaged employees perceive various aspect of their as integrated into their work domain, and therefore, they may go extra miles while working toward their goals.

Engagement-performance relationship has been examined across various studies involving diverse occupational groups. For instance, Bakker, Demerouti, and Verbeke (2004) found that engaged employees demonstrated higher levels of in-role and extra-role performance when their performance was evaluated by their colleagues. This suggests that engaged employees perform better and are willing to go beyond their prescribed obligations. Similarly, Schaufeli, Taris, and Bakker (2006) found that work engagement and in-role performance were positively related among Dutch employees from a wide range of occupations. Gierveld and Bakker (2005) expanded these results among their study of secretaries and found that engaged secretaries were higher on extra-role and in-role and performance. It was also revealed that engaged secretaries were more influential in terms of daily business.

They were more often requested to undertake additional tasks, such as the organizing trade conventions and exhibitions, personnel pre-selection, and website maintenance.

In their study of employees of hotel and restaurants in Spain, Salanova, Agut, and Peiro´ (2005) collected data from contact employees of over 100 service units (hotel front desks and restaurants) about engagement, organizational resources, service climate, performance and customer loyalty. SEM analyses revealed a full mediation model where service climate mediated the relationship of work engagement and organizational resources with employee performance and then customer loyalty. Similarly, in their study of school principals and teachers, Bakker et al. (2006) found significant and positive relationship between work engagement of school principals' and teacher-ratings of their performance and leadership. More specifically, findings delineated that engaged principals demonstrated higher levels of extra-role and in-role performance. Moreover, engagement was strongly associated with creativity; increasing level of principals' levels of work engagement was predictive of their capability of finding variety of ways to cope with work-related problems. Finally, engaged school principals were perceived as transformational leaders who had the potential of inspiring, stimulating and coaching their colleagues and followers. In their diary study of employees of a Greek restaurant, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) found that daily levels of work engagement positively predicted objective daily fiscal returns.

Based on meta-analytic data, Christian, Garza, and Slaughter (2011) concluded that employee engagement explained incremental variance beyond job satisfaction, organizational commitment, and job involvement in the prediction of task performance and OCB. More recently, Dalal, Baysinger, Brummel, & LeBreton (2012) examined the relative importance of work engagement in relation to task performance and extra role performance against the established work attitudes like job satisfaction, organizational commitment, and trait affectivity. Their rescaled relative weights indicate that the greatest amount of explained variance in OCB was attributable to employee engagement (25%), followed by work centrality (19%), job satisfaction (14%), positive affect (12%), POS (10%), negative affect (8%),

organizational commitment (6%), and job involvement (6%). In case of task performance, the greatest amount of explained variance in task performance was attributable to negative affect (38%), followed by job satisfaction (16%), employee engagement (15%), job involvement (11%), POS (9%), work centrality (4%), organizational commitment (4%), and positive affect (3%). This study clearly elucidated the significance of work engagement in relation to both task performance and organizational citizenship behaviors.

Given that psychological capital as a personal resource has strong positive association with work engagement as well as with in-role and extra role performance; and work engagement's potential of positively influencing in-role and extra role performance (see Table 54 & 57), the mediating role of work engagement of relationship of psychological capital with in-role and extra role performance is quite logical. Thus psychological capital not only directly influences performance, but it also serves to enhance employees' work engagement, which in turn further improves their performance. Summing up the discussion, we may conclude that employees high on psychological capital are more likely to be engaged in their work and engaged employees are vital and strong, and are enthusiastic about their work, which make them better performer both in terms of in-role and extra role performance.

Work engagement and job related affective well-being. The findings of the present research have revealed that work engagement not only predicted job related affective well-being in positive direction, it also partially mediated between psychological capital and affective well-being. Thus, our hypothesis 12c was supported (see Table 60). Many researchers have used work engagement as an index of employee well-being. Thus, it is of no surprise that the former has turned out to be a significant predictor of the later. Ouweneel, Le Blanc, and Schaufeli (2013) conceived work engagement as an active measure of well-being in contrast with a passive measure, like job satisfaction, that is characterized by satiation (Warr, 2007). Harter, Schmidt, and Hayes (2002) and Schaufeli, Bakker, and Salanova (2006) pointed that psychological well-being is not positioned as a key component of employee engagement. A broader conceptualization of employee engagement that

includes employee well-being provides a more comprehensive definition of engagement for individuals (Meyer & Maltin, 2010) and organizations alike (Robertson & Cooper, 2010).

Extending the linkage between engagement and employee well-being, Hence et al. (2008) reasoned that work engagement leads to positive behavior and better performance in the workplace. Owing to their increased energy levels, vigorous employees are highly motivated for investing their best efforts in their work. Their dedication with their work is reflected in their deep involvement with their work, which may make them proud and enthusiastic about their jobs. Finally, focusing upon their work, absorbed employees are so much submerged in their work that time at work flees for them (Ouweneel, Le Blanc, & Schaufeli, 2013). Thus, this affective and motivational state should be a proximal predictor of job related affective well-being.

Experiencing engagement involves experiencing positive emotions such as pride, enthusiasm, and joy that are part of the dedication dimension (Bakker & Demerouti, 2007). Apart from leading to a widened array of thoughts (Frederickson, 2001), positive emotions also stimulate exploratory and learning behavior (Fazio, Eiser, & Shook, 2004). Thus, broadening one's thoughts through positive emotions will lead to enhanced job related affective well-being.

Balducci, Fraccaroli, and Schaufeli (2010) found positive relationship between work engagement and job related affective well-being measured through JAWS. The JAWS was derived from a conceptualization of job-related affect, according to which it varies along the two dimensions of pleasure and activation (Van Katwyk et al., 2000). More specifically, Balducci et al. (2010) found that work engagement is positively related with high pleasure-high arousal dimension of job related affective well-being and presented it as an evidence for the conceptualization of work engagement as a psychological state characterized by energy, identification with, and positive emotions toward one's work (Schaufeli & Bakker, 2003).

As already discussed, psychological capital is a positive predictor of job related affective well-being and employees rich in psychological capital are more likely to be engaged in their work which in turn may lead to enhanced job related affective well-being. Thus besides the direct effect of psychological capital on job related affective well-being, its indirect effect on well-being through work engagement is equally plausible. The findings of present research demonstrated that psychological capital as a personal resource enhances employees' work engagement and highly engaged employees have greater opportunities of experiencing job related affective well-being.

Work engagement, burnout, and counterproductive work behaviors. The findings of the present study have revealed that work engagement negatively predicted counterproductive work behaviors (CWB) and burnout and it also partially mediated the relationship of psychological capital with burnout (supporting our hypothesis 13e; see Table 66) but not with CWB (rebuffing our hypothesis 13d; see Table 63). A similar pattern of relationship was observed when work engagement was taken as mediator of ownership's relationship with counterproductive work behaviors and burnout. It did mediate between ownership and burnout (supporting our hypothesis 12e; see Table 66) but not between ownership and CWB (discarding hypothesis 12d of this study; see Table 63).

Employees' lack of motivation for conforming the organizational norms or their motivation of violating them reflects the voluntary nature of CWB. It means that employees engaging in CWBs are either not motivated to conform and/ or they are driven for acting against the established organizational norms. CWB may also be conceptualized as voluntary behavior that violates significant organizational norms and in so doing threatens the well-being of organizations, its members, or both. According to Ariani (2013), social exchange theory and reciprocity theory may provide possible explanations for the negative relationship between organizational deviance and engagement. Negative perceptions of the work situation may make employees more likely of getting involved in workplace deviance (Judge, Scott, & Illes, 2006). Positive conceptions about the work milieu were inversely associated with CWBs. Engaged employees who are proud, enthusiastic, and involved in their

jobs are naturally more likely to conceive their work settings positively whereas disengaged employees are more likely to be hostile, irritable, and upset because of which they are more likely to perceive their workplace in negative terms. For employees who are low on engagement, CWBs can be conceived as instrumental in retaliating against the employers for the provision of unpleasant work environment. Such personnel are not very much concerned about their jobs and are more likely to be involved in organizational deviances that may endanger their employment. This argument is empirically supported by Colbert, Mount, Harter, Witt, and Barrick (2004) who found that employees conceiving their work milieu in unfavorable terms are more likely to indulge in organizational deviance. Therefore, being a positive affective and motivational state, work engagement should be a negative correlate of CWB. Thus, engaged employees are expected to demonstrate more positive and less deviant work behaviors (Den Hartog & Belschak, 2012). Vigor being an important component of engagement energizes and invigorates the engaged employees. This energy coupled with the dedication and absorption in the work encourages proactive behavior like OCB and diminishes negative work behaviors like CWB.

Literature focusing upon the direct relationship between engagement and counterproductive work behaviors is scarce; however, the available studies provide an evidence for the negative relationship between the two variables. Dalal, Baysinger, Brummel, and LeBreton (2012) have found that work engagement is positively related to task performance, organizational citizenship behavior, and negatively related to counterproductive work behavior. In their relative weight analysis, Dalal et al. (2012) found that their rescaled relative weights indicated that the greatest amount of explained variance in CWB was attributable to negative affect (56%), followed by POS (14%), employee engagement (13%), job satisfaction (6%), positive affect (4%), organizational commitment (3%), work centrality (2%), and job involvement (1%). Thus, engagement has been a better predictor of counter productive work behaviors in relation to the established work attitudes like job satisfaction, positive affect, organizational commitment, work centrality, and job involvement. More recently, Ariani (2013) also found a significant positive relation between employee engagement

and OCB and a significant negative relation between employee engagement and CWB.

The negative relationship between work engagement and burnout provided support for 36th hypothesis of this work (see Table 51, 66, 67, 68, & 69) and is quite logical given the very nature of the two constructs. Work engagement has actually spawned through research on burnout, as positive psychology gain momentum in industrial/organizational psychology. As a corollary, burnout research is not limited to the negative side of employee well-being, it also take into account its positive side as well. Maslach and Leiter (1997; 2008) rearticulated burnout as an attrition of engagement with the job. They conceived engagement as the antithesis of burnout and suggested that energy, involvement, and efficacy are important components of engagement, which are the exact inverses of the three burnout factors namely exhaustion, cynicism, and reduced professional efficacy.

Taking a different approach, Schaufeli and Bakker (2001) considered that engagement should be conceived and measured in its own place. For them, work engagement is a positive, affective-motivational state of fulfillment in employees, which is delineated by vigor, dedication, and absorption. They reasoned that Maslach and Leiter's (1997) operationalization of engagement, as the opposite pole of burnout on a single continuum does not allow assessing the relationship between engagement and burnout. Thus, engagement should not be assessed by reversing the scores on MBI-GS because the structure and the measurement of both concepts are different, although conceptually they may appear as antagonist to each other. It is also imperative to note that burnout and engagement have different antecedents and different consequences and the psychological mechanism underlying both of them is quite different (Schaufeli & Bakker, 2010). Burnout is essentially the outcome of job demands such as workload, and physical demands, whereas work engagement arises in response to the availability of resources in the work milieu (e.g. autonomy or support; for a meta-analysis, see Halbesleben, 2010). This line of reasoning elucidates that engagement should be operationalized in its own right since it cannot be tapped through inversed scores of burnout. Thus, Schaufeli and Bakker (2001; 2010)

suggested that engagement and burnout should be considered as two different constructs that should have independent measurement instruments.

There is now a consensus among the researchers that work engagement and burnout are two independent constructs with negative relationship. Several studies testify to this fact. Schaufeli, Martínez, Pinto, Salanova, and Bakker (2002), for instance, found that burnout and engagement subscales were negatively correlated in a cross-national study. These findings were replicated by Schaufeli and Bakker (2004) who found that instead of loading on one single general well-being dimension, the burnout and engagement scales loaded on two separate, moderately negatively correlating dimensions in a multi sample study. Obviously, in contrast to the assumption of Maslach and Leiter (1997), burnout and engagement—when measured by different instruments—do not merge into single dimension with high opposite factor loadings for each construct.

Another study that confirms the strong relationship between engagement (measure by the Utrecht Work Engagement Scale, UWES; Schaufeli et al., 2002) and burnout (measure by the MBI-GS; Maslach et al., 1996) was done by Rothmann (2003). In this South African study significant correlations between work engagement and the two dimensions of burnout, namely exhaustion (r = -.38, n = 215, p < .01) and cynicism (r = -.50, n = 215, p < .01), emerged. Similar to the study above and using the same measurement instruments for the two constructs, Jackson, Rothmann and van de Vijver (2006) also reported significant correlations between Burnout (specifically exhaustion) and Engagement (vigor and dedication). A comparable study by Schaufeli, Taris, and van Rhenen (2008) also reported that burnout (as measured by the MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) and Employee Engagement (as measured with the UWES; Schaufeli et.al., 2002) are significantly negatively related (r = - .65). However, these authors reported that EX have the strongest significant negative relationship with VI (r = - .38) and CY to DE (r = -.47). Schaufeli, Bakker, and van Rhenen (2009) conducted a longitudinal survey among 201 telecom managers to assess the relationship between burnout (measured by the MBI-GS; Maslach et al., 1996) and engagement (measured by the UWES;

Schaufeli et al., 2002). Their analyses yielded strong significant relationships between these two constructs at Time 1 and Time 2. At Time 1, they found a significant relationship between exhaustion (a dimension of Burnout) and vigor (a dimension of engagement) (r = -.47, n = 201, p < .001) as well as between exhaustion and dedication (another dimension of engagement) (r = -.44, n = 2101, p < .001). Even stronger relationships were reported for cynicism (another dimension of burnout) and vigor (a dimension of engagement) (r = -.46, n = 201, p < .001), as well as between cynicism and dedication (another dimension of engagement) (r = -.63, n = 201, p < .001). Similar strong significant relationships were reported at the measurement at Time 2 and also in a similar study by Bakker, Demerouti, and Schaufeli (2005).

Demerouti, Mostert, and Bakker (2010) compared scores on MBI-GS and the UWES and found that dedication facet of engagement and the cynicism factor of burnout may be conceived as the opposite poles of a single underling attitude termed as "identification" (see also González-Romá, Schaufeli, Bakker, & Lloret, 2006). However, this pattern is not true about the exhaustion and vigor dimensions, which did not lend themselves as opposite ends of the "energy" continuum, despite their strong association with each other. These inferences were further augmented by the findings, which revealed vigor is mainly associated with job autonomy whereas exhaustion is primarily related with work pressure (i.e. a typical job demand). Overall, empirical research posits that engagement (as operationalized through the UWES) and burnout (as assessed with the MBI-GS) are independent yet negatively related constructs, which further validates the use of the UWES as a pertinent measurement instrument of work engagement.

Given the strong negative associations of psychological capital and work engagement with burnout, the mediating role of work engagement in PsyCap's relationship with burnout is quite lucid. The negative association of psychological capital with burnout becomes even stronger for employees who are highly engaged in their work. Psychological capital constitutes important personal resources for employees which facilitate them in getting engaged in their in-role as well as extra

role performance and an engaged employee who enjoys his job to the extent of such absorption that time on the job 'flies' for him is least likely to be burnout.

Psychological Ownership in Relation to Psychological Capital and Work Behaviors

The present study has examined psychological ownership in relation to work engagement and various work behaviors including in-role performance, organizational citizenship behavior, counterproductive work behaviors, and burnout. More specifically, the current study has conceptualized psychological ownership as a mediator of PsyCap's relationship with work engagement as well as the aforementioned work behaviors. This section aims at brief discussion of our findings pertaining to psychological ownership.

Psychological ownership and psychological capital. Across all the model of the present study, psychological capital has demonstrated strongest positive direct effect on psychological ownership. This provides an empirical evidence not only for 4th hypothesis of this study (see Table 55, 57, 60, 63, 66, & Figure 31) but also supports Avey, Avolio, Crossely, and Luthans' (2009) proposition that psychological ownership can be incorporated within the evolving research on positive organizational behavior or POB. Psychological ownership has many common themes that run parallel to the already established POB constructs and orientations like psychological capital (e.g., Luthans, Youssef, & Avolio, 2007), character strengths and virtues (e.g., Peterson, 2006; Peterson & Seligman, 2004), positive organizational scholarship (e.g., Cameron, Dutton, & Quinn, 2003), and psychological well-being (e.g., Quick & Quick, 2004; Wright & Cropanzano, 2004; Wright, 2005). More specifically, in addition to sharing the positivity and thriving for success, psychological ownership psychological ownership also meets the specific POB inclusion criteria of being grounded in scientific theory, measurable, state-like, and open to development for managing performance impact in work settings (see Luthans, 2002a, 2002b; Luthans et al., 2007).

The findings of present study illustrates that psychological ownership might be conceived as a personal positive psychological resource (see Fredrickson, 2001; Hobfoll, 2002) as suggested by Avey et al. (2009). Although psychological ownership has not been studied in relation to POB, there are several reasons that suggest its strong ties with POB. It can be measured, invested in, developed, and managed for performance impact and competitive advantage just like other psychological resources. Moreover, psychological ownership has demonstrated a peculiar pattern of relationship with salient positive and negative work behaviors, which signify it as a potential positive psychological resource. It has demonstrated direct as well as indirect positive relations with in-role performance, extra role performance, and job related affective well-being, and strong negative direct and indirect relations with burnout and counterproductive work behaviors.

Psychological ownership and in-role performance. Psychological ownership mediated the relationship of psychological capital with in-role performance supporting hypothesis 8b of this study (see Table 54). Promotive psychological ownership demonstrated a direct positive effect on in-role performance (hypothesis 9a was supported) in the absence of work engagement as a mediator. Thus, ownership's relationship with in-role performance was fully mediated by work engagement, which yields support for our hypothesis 12a (see Table 54). We will first analyze the dynamics of relationship between psychological ownership and in-role performance and subsequently discuss the mediating role of work engagement between psychological ownership and in-role performance.

Empirical research on possession recognizes three principal outcomes related with feelings of possession, which include enriched self-concept, positive orientation toward the target, and a sense of accountability (Furby, 1978, 1991). Van Dyne and Pierce (2004) proposed that feelings of possession not only permit individual to satiate his/her needs of self-identity, place, and efficacy and effectance but also promotes positive work attitudes such as organizational commitment and job satisfaction, which may in turn lead to enhance self-concept (organizational-based self-esteem), and desirable work behaviors such as in-role and extra-role performance.

Pierce, Kostova, and Dirks (2001) posit that psychological ownership may gratify three basic human needs, which include having a sense of place, self-identity, and being efficacious and effective. Van Dyne and Pirece (2004) cogently reasoned that employees would take initiatives in defending and developing the target of their feelings of ownership when their aforementioned basic needs are satiated in their work setting. Therefore, employees high on psychological ownership should have a proactive orientation toward practical contributions to their organization. Employees are more likely to reciprocate their organization for the provision of valued sense of belonging (place), sense of efficacy and effectance, and sense of self-identity, (Gouldner, 1960). Alternatively, it may be inferred that psychological ownership for the organization may inculcate feelings of responsibility that lead to investing time and energy for promoting the organizational goals, and hence ensures optimal levels of job performance. Dipboye (1977) and Mackin (1996) were also of the view that every feeling of ownership for organization is related to commensurate or balancing responsibility for work outputs. According to Bambla, Shamsudin, and Subramaniam (2013), this line of reasoning may suggest that with psychological ownership every positive employee behavior is a possibility. Feelings of responsibility include a responsibility to invest one's time and energy to advance the cause of the organization, caring and nurturing important aspects of the organization (Pierce et al., 2001).

Beaglehole (1932) and Furby (1978) also proposed that feelings of possession create a sense of responsibility that influences behavior. When individuals have possessive feelings, they proactively enhance, control, and protect both tangible and intangible targets of ownership (Hall, 1966). A similar line of reasoning has been adopted by Avey, Avolio, Crossely, and Luthans (2009) who argued that the sense of responsibility inherent in feelings of possession and ownership motivates employees to be engaged in desirable work behaviors. Employees and their organizations are linked in transaction exchanges such that employees reciprocate their organization for gratifying their needs through developing feelings of ownership and the associated sense of responsibility. This is quite consistent with Exchange theory (Blau, 1964)

which postulates that individuals maximize their benefits through a succession of such exchanges.

Work becomes essentially significant for employees who feel a sense of psychological ownership or possession toward the organization (Wilpert, 1991), which stimulates active participation (Dirks, Cummings, & Pierce1996; Rochberg-Halton, 1980). Grounded in the association between feelings of ownership and active involvement, it is explicated that employees high on psychological ownership are more likely to demonstrate high levels of in-role performance.

Given that psychological ownership is a relatively new construct, literature on its relationship with important work outcomes such as job performance is scarce. The available evidence is also inconclusive. Van Dyne and Pierce (2004), for instance, found a significant positive relationship between psychological ownership and employee performance. When demographic differences were taken into account, however, this relationship was not significant. Similarly, Mayhew, Ashkanasy, Bramble, and Gardner (2007) found that psychological ownership is positively related with work attitudes (job satisfaction and organizational commitment) but not with work behaviors (both in-role as well as extra role performance). However, Ghafoor, Qureshi, Khan, and Hijazi (2012) found that psychological ownership partially mediated between transformational leadership and job performance. Md-Sidin, Sambasivan, and Muniandy (2009) found that psychological ownership did predict not only the work attitudes of job satisfaction and organizational commitment but also job performance among business school lecturers.

Psychological ownership and extra role performance or OCB. Psychological ownership mediated the relationship of psychological capital with extra role performance. Moreover, psychological ownership had a direct positive influence on organizational citizenship behavior. Thus, our hypotheses nos. 20 and 25 were supported (see Table 58).

Van Dyne and Pierce (2004) argued that sense of possession and ownership is closely tied with employees' voluntary positive behaviors such as OCB because based upon their personal experiences; employees have a conscious choice of being engaged in such informal desirable work. Sense of responsibility is evoked when employees who psychologically own their organization perceive that their needs of belonging, efficacy and effectance, and self-identity are being satiated by their organization (Pierce et al., 2001). Sense of 'mine' induces proactive orientation, which aims at defending and promoting the target of ownership (Beaglehole, 1932; Wilpert, 1991). When organizational targets and personal identity are enmeshed with each other, feelings of possession about that target may provoke such desirable behavior, which are not formally ascribed to job roles (Avey et al., 2009). Furthermore, employees reciprocate to their organization when they conceive that the organization contributes to their basic needs. Pierce et al. (1991, 2001) and Van Dyne et al. (1995), for instance, suggested that psychological ownership should be positively associated with extra-role behaviors. These voluntary behaviors include helping colleagues, orienting new employees, and volunteering for specific tasks.

Despite the paucity of empirical studies on the relationship between psychological ownership and OCB, the few studies that have examined these constructs provide encouraging results. Parker, Wall, and Jackson (1997), for instance, found that a high level of psychological ownership is accompanied by positive employee behaviors such as feeling of concern for product quality, customer satisfaction and working as a part of a team, as opposed to the feeling that these job-related issues are someone else's concern or problem. Therefore, when employees feel a sense of ownership for their organization or any part of it, they can exert extra efforts and offer personal sacrifices to ensure the organizational interests are protected, and goals achieved. Because psychological ownership is affective, it can be a good catalyst for employees to engage in positive employee behavior such as OCB. In line with this, Van Dyne and Pierce (2004) empirically demonstrated that psychological ownership for the organization increased explained variance in organizational citizenship behavior (for both supervisor and peer assessments of citizenship), over and above demographic characteristics, organizational commitment,

and job satisfaction. Similarly, Vandewalle, Van Dyne, and Kostova (1995) have demonstrated that psychological ownership significantly and strongly predicts extra role behavior more than does the in-role behavior. Additionally, comparison revealed that psychological ownership has demonstrated superiority over job satisfaction in predicting extra role. Another finding is that psychological ownership may increase organizational citizenship behaviors and organizational commitment supposing that there is a participative and autonomy supporting work environment in which employees have a considerable chance of self-development and long-term employment (Ozler, Yilmaz, Ozler, 2008). Finally, Avey et al. (2009) also demonstrated a strong positive relationship between psychological ownership and organizational citizenship behavior.

Psychological ownership and job related affective well-being. Another important work related outcome investigated in the present study was job related affective well-being. Psychological ownership has demonstrated positive direct as well indirect relationship through work engagement with job related affective well-being. Thus, empirical support was generated for 9c and 12c hypotheses of the present work (see Table 60). Moreover, psychological ownership also mediated between psychological capital and job related affective well-being suggesting a positive evidence for hypothesis 8d of this study (see Table 60). To the author's knowledge, no empirical study has yet explored the relationship between psychological ownership and job related affective well-being, though some studies have examined ownership's relationship with job satisfaction, organizational commitment, and OCB (e.g., Avey et al., 2009; Mayhew, Ashkanasy, Bramble, & Gardner, 2007; Van Dyne & Pierce, 2004). Therefore, this finding of the present study is exploratory in nature.

According to Warr (1987), job related affective well-being can be context free or general or it can be related to some specific domain (e.g., job related affective well-being) or some specific facet of a particular domain (e.g., work environment, or salary). He conceptualized affective well-being as comprising of three bipolar axes, which included (i) contended –discontented (ii) anxious-comfortable, and (iii) depressed-actively pleased. Being contended on the first bipolar axes leads to

happiness, life satisfaction, low negative affect, and low general distress in terms of context free affective well-being. In terms of job related affective well-being, a contended employee would be satisfied with her/his job, would be attached to her/his job and organization. Being comfortable on the second axes means that the person is not anxious and neurotic in terms of context free affective well-being and may have personal resources for affectively cope with job-related tensions and occupational pressures in context of job related affective well-being. Finally, an actively pleased individual on the third bipolar axes is likely to experience high levels of positive affect, low levels of depression and tedium in general life whereas such an employee should have high levels of job involvement, and reduced chances of being burnt out. Focusing upon the positive poles of these three axes, we may infer that a person who is highly engaged in his work, psychologically owns her/his organization and job, and possesses personal resources to cope up with the occupational demands is high on job related affective well-being. Thus psychological capital, psychological ownership, and work engagement turn out to be the essential predictors of employee's job related affective well-being.

Psychological ownership, especially, appear to have strong links with all three paths of Warr's model (1987). According to Pierce et al. (2001), psychological ownership helps meet three basic human needs including need of having home (a place to belong), need of efficacy and effectance, and need of self-identity. Being contented on the first axes ensures that one's needs of having a designated place to work, efficacy and effectance in the execution and completion of one's tasks, and identification with one's job and organization are satisfactorily being met. Likewise, being comfortable on the second path means that one is self-efficacious enough to tackle effectively with the job demands and occupational stressors. Finally being actively pleased on the third axes signifies that one is actively pursuing one's job targets, hence experiencing the effectance and establishing one's identity with one's work.

Psychological ownership, counterproductive work behaviors, and burnout. Psychological ownership predicted neither counterproductive work

behaviors nor burnout, though the direction of relationship was negative in both instances. Hence, our hypotheses 10a and 10b were rejected (see Table 63 & 65 respectively). However, psychological ownership mediated the relationship of psychological capital with burnout rendering support to our hypothesis 8f (see Table 65). The indirect effect of psychological capital on counterproductive work behavior through psychological ownership remained non-significant, thus our hypothesis 8e was rejected.

To our knowledge, only one published study (Avey et al., 2009) has examined the relationship of psychological ownership with counterproductive work behaviors. Although this study found a significant negative relationship between the two constructs (r = -.35, p < .05), but the analyses were limited to zero-order bivariate correlations between the variables since the study was mainly conducted to validate Psychological Ownership Questionnaire. It should be noted here that the correlation between these two variables in the present study was also negative and significant (r = -.18, p < .001). Our results indicated that is not necessary that an employee who does not psychologically own his organization would be engaged in counterproductive work behaviors. Instead, s/he may be simply disengaged from her/his work or the organization or may not show up citizenship behaviors. Another line of reasoning suggests that it might be the preventive psychological ownership or territoriality, which is more relevant to counterproductive work behaviors in contrast with the promotive psychological ownership. The pattern of relationships of the present study is also suggestive of this clue as territoriality was found to be marginally related with organizational citizenship behaviors (r = -.009, p = .84) and positively related with counterproductive work behaviors (r = -.19, p = .000). Future research is warranted to explicate the relationship of promotive and preventive psychological ownership wit organizational citizenship behaviors and counterproductive work behaviors.

The findings of the present study about relationship between psychological ownership and burnout were in line with the hypotheses. Psychological ownership partially mediated between psychological capital and burnout. To the researcher's knowledge, no published study has examined the relationship between psychological

ownership and burnout. Thus, findings of the present study are exploratory in nature. Several lines of reasoning offer supportive evidence to this negative relationship.

Firstly, self-efficacy is an important dimension of psychological ownership and several empirical studies has demonstrated the negative relationship between self-efficacy and burnout. In fact, the reduced personal accomplishment component of burnout is perhaps the direct antipode of self-efficacy. Since an employee who psychologically owns his organizations not only believes in her/his capabilities towards the attainment of organizational goals, s/he may translate these capacities into in-role as well as extra role behaviors to satiate her/his need of being effectance.

Secondly, throughout the present research psychological ownership remained a significant and positive predictor of work engagement. It follows from this finding that employees who psychologically own their organization should have been engaged in their work. The strong negative association between work engagement and burnout has already been discussed. Thus, psychological ownership is negatively related to burnout since ownership leads to higher levels of work engagement. This argument is further augmented by another finding of the present study that signified mediating role of work engagement between psychological ownership and burnout.

Finally, job autonomy is a job resource that has consistently been seen as a buffering agent against the positive relationship between job demands and burnout. It has been observed throughout the present research that in addition to psychological capital, job autonomy remained a significant and positive predictor of psychological ownership and the latter served as a mediating variable between the former and various work behaviors. A similar finding was also reported by Mayhew, Ashkanasy, Bramble, and Gardner (2007). Seeing these relationships in serial fashion elucidates that employees enjoying psychological ownership for their organizations would be having a considerable amount of job autonomy, which may provide us with one of the routes for the negative relationship between psychological ownership and burnout.

Psychological Ownership and Work Engagement

The present study has conceptualized psychological ownership as a mediator between psychological capital and work engagement. This is one of the cardinal relationships hypothesized in the present study since it suggested that ownership and work engagement mediate the relationship of personal resources of psychological capital with certain work outcomes in a serial fashion with psychological ownership as a predictor of work engagement. Indeed, this hypothesized relationship was found to be true across the models of this study yielding a strong support for our 14th hypothesis (see Table 51, 57, 60, 63, & 66).

Several plausible reasons can be put forwarded for explaining this relationship. According to Beggan (1992), and the 'mere ownership effect,' people generally become more attached to things they feel they possess than similar things that they do not feel they possess. When an object is owned, greater care, attention, and energy are bestowed upon the object (Belk, 1988). Furthermore, ownership is considered a prime motivator of human behavior (O'Toole, 1979). Ownership instills a sense of pride within employees and acts as a motivator for enhanced performance (Berstein, 1976). Avey et al. (2009) argued that when employees feel ownership in an organization, they tend to engage in positive behaviors driven by the sense of responsibility accompanying feelings of ownership. Therefore, the present stud proposed that psychological ownership might produce a positive affective motivational state of work engagement whereby employees are stirred to bring in desired work outcomes.

Exchange theory (Blau, 1964) and self-identity (Katz & Khan, 1978) perspective also shed some light on the hypothesized relationship between psychological ownership and work engagement. The transactional exchange between employees and their organization is such that the organization satisfies the needs of participants, who in turn reciprocate by developing feelings of ownership and a corresponding sense of responsibility. The provision of feelings of belonging, sense of efficacy and effectance, and sense of self-identity by the organization motivate

employees for reciprocation (Gouldner, 1960) and work engagement is very instrumental in this transactional exchange. Alternatively, we may infer that psychological ownership for the organization instills sense of responsibility that makes employees persistent in investing time and energy for the expansion of the organization (Mayhew et al., 2007). According to exchange theory, individuals maximize their benefits through a chain of such exchanges. In contrast, Katz and Kahn argue that the intrinsic motivation, which transcends the reciprocal exchange of pay for performance leads to personal identification and instills a sense of work engagement in the workers. When organizational targets and personal identification are integrated, sense of ownership in that target may yield desirable work behavior via the motivational state of work engagement.

Positive evaluative judgments about the organization and organizational experiences derived from positive personal resources and job resources may explain how psychological ownership develops and may in turn lead to work engagement. When employees are rich in psychological capital and organization provides them with important job resources (like job autonomy, social support, and authentic leadership) to accomplish their jobs; an overall framework of positive affective judgments about the organization and the organizational practices should have been construed. This is in harmony with the pertinent literature on possession, which shows that people tend to develop positive appraisal of their possessions (Beggan, 1992) and are positively biased in judging owned objects as compared to similar, un-owned objects (Nuttin, 1987). Thus, members of an organization with a sense of ownership should have high levels of work engagement (they have intimate knowledge about the organization, are influential at their work, and feel they have devoted themselves in their job roles), which in turn may positively influence other important work outcomes.

Finally, job demands-resources model (JD-R model; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004) also provides with an important explanation for specifying psychological ownership as an antecedent of work engagement. As argued by Avey et al. (2009), psychological ownership is one

of the prime candidates for inclusion in psychological capital; and psychological capital has been conceptualized as a positive personal resource across numerous studies (Chen, Gully, & Eden, 2001; Ma¨kikangas & Kinnunen, 2003; Van Yperen & Snijders, 2000; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Personal resources are those aspects of the self, which are generally linked to resiliency and involve individuals' sense of their ability to control and impact upon their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003). Thus, personal resources are instrumental in achieving the desirable work outcomes through work engagement via the 'motivation' process of JD-R model. Xanthopoulou et al. (2007) empirically demonstrated that personal resources could not only influence the perceptions of job resources but they also paly mediating role between job resources and desirable work outcomes via engagement/exhaustion. Thus being a personal positive resource, psychological ownership should facilitate the motivational path of JD-R model and enhanced work engagement should be ensued.

Psychological Ownership and Job Autonomy

The present study conceived job autonomy as an important antecedent of psychological ownership and in fact job autonomy turned out to be a significant predictor of promotive ownership throughout all the proposed models of the present work. Thus, our 19th hypothesis gleaned a strong empirical support across various models of work outcomes (see Table 54, 57, 60, 63, & 66). Pierce et al. (2001, 2003) elaborated three mechanisms through which psychological ownership can be flourished. The first mechanism is control because controlling an object generates sense of ownership towards that object. Secondly, increasing knowledge and familiarity with the object are also instrumental in developing feelings of ownership. Finally, it is suggested that ownership develops for an object when it is created or it entails significant devotion of the self. The present study provides an empirical support for the first route proposed by Pierce et al. (2001, 2003). Object control is conceived as potential precursor of ownership that can be effectively manipulated in organizational settings.

Rudmin and Berry (1987) cogently pointed out that an essential component of possession and ownership is the capability of exercising control. McClelland's (1951) assertion that the objects we control are extensions of our selves is also suggestive that sense of possession can shape personal identity. Considering that possessions also constitute part of the extended self (Belk, 1988), Mayhew, Ashkanasy, Bramble, and Gardner (2007) inferred that feelings of ownership are developed through control, which in turn permits objects to be incorporated with the self.

Organizational opportunities of controlling one's job are typically offered in terms of job autonomy in the work settings. Employees experience a strong element of control when they are allowed to plan and perform their obligations at their own pace (Mayhew et al., 2007). Pierce et al. (2001) found that jobs, which are high on autonomy offer greater degree of control, which may result in enhance sense of psychological ownership. This suggestion has also been investigated, revealing a significant relationship between psychological ownership and control and job design autonomy (Pierce et al., 2004).

Authentic Leadership

The present research conceived authentic leadership as an important precursor of work attitudes, intentions, and behaviors. The findings of this study revealed that authentic leadership had significant positive and direct effect on work engagement (see Table 54, 57, 60, 63, & 66) and job related affective well-being (see Table 60) and indirect effect through work engagement on in-role performance (see Table 54), and burnout (see Table 66). The indirect effects of authentic leadership on in-role performance and burnout can be comprehended from the discussion about the relationship of work engagement with authentic leadership (discussed in the next section); in-role performance (see pp. 346-349) and burnout (see pp. 351-356). The strong positive relationship of psychological capital and job autonomy with both authentic leadership and psychological ownership may partly explain why authentic leadership had no direct effect on psychological ownership. The part correlations between authentic leadership and psychological ownership provided empirical

evidence for this line of reasoning. The zero order correlation between authentic leadership and psychological ownership was r = .28 which was reduced to .06 when psychological capital and job autonomy were controlled for. This pattern of thinking is further augmented as analyses of the present research revealed that authentic leadership turned out to be significant predictor of psychological ownership once psychological capital and job demands/resources were removed from the model. Furthermore, it also appeared as significant predictor of in-role performance, OCB, counterproductive work behaviors, and burnout in simple linear regression model (these analyses are not reported in this dissertation).

Another important stream of evidence supports our findings pertaining to authentic leadership. Pertinent empirical research on theory of planed behavior (Ajzen, 1991) revealed support for our findings since this theory provided the theoretical framework for one of the central tenets of the present research i.e., the serial mediation of psychological ownership and work engagement between psychological capital/authentic leadership and work outcomes. Meta analyses of various published researches on theory of planned behavior revealed that subjective norm is the weakest predictor of behavioral intentions (Armitage & Conner, 2001; Van den Putte, 1991). Since the present study equated authentic leadership with subjective norm, this finding of the present study is quite in line with the relevant empirical literature. These meta analyses have suggested that personal beliefs (psychological capital in the present study) and perceived behavioral control (job demands and resources in the current research) are more powerful predictors of work attitude (psychological ownership) and work intentions (work engagement) than normative beliefs (authentic leadership). Therefore, in the presence of more proximal predictors of work outcomes such personal resources of psychological capital, psychological ownership, and job demands/resources; authentic leadership appeared to be a distal predictor.

Authentic Leadership in relation to work engagement. Findings of the present research consistently demonstrated authentic leadership as an important predictor of work engagement across various models of work outcomes (see Table 54,

57, 60, 63, & 66). Several lines of reasoning can be drawn in order to explain this important finding of the present research. Firstly, authentic leaders are more likely to assist their followers not only in recognizing their true potentials but also in their optimal utilization. Thus, authentic leaders are expected to facilitate the experience of engagement by helping their followers craft a better fit between significant self-goals of authentic self and job roles (Gardner, Avolio, Luthans, May, & Walumbwa, 2005), which in turn lead to persistent and authentic performance both at individual and organizational levels. Secondly, as conceived by Khan (1990), this facilitating role of authentic leaders in assisting their followers realizes their potentials may be seen as an important precursor of safety dimension of work engagement.

Thirdly, according to Gardner et al. (2005), authentic leaders set pragmatic examples of performance standards, which make their followers more likely to identify with them, and in doing so, they may internalize organizational goals via modeling. They further reasoned that a leader who demonstrates openness, truthfulness, and veracity, while operating within a developmental focus for developing enduring and fecund carriers is more likely to be embraced by the followers. Authentic leaders elevate followers' self-awareness through inducing a profounder sense of personal commitment among them, which they establish through their personal instances of high ethical standards of integrity (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Thus, the pursuit of extrinsic organizational goals is enmeshed with elements of intrinsic motivation making them more meaningful at personal level (Ryan & Deci 2000). Such goals are likely to be perused with dedication, vigor, and involvement resulting in higher levels of work engagement. Moreover, the balanced processing of information and internalized moral perspective of authentic leaders make them treat their followers in a transparent, graceful, and fair manner. This interactional justice may also positively contributes to work engagement (Pati & Kumar 2010).

Fourthly, employees' perception of their leadership as genuine, transparent, insightful, and capable of developing the organization assures them their career progression and a more successful and profitable future with their organization

(Spreitzer & Mishra, 2002). Alternatively, we may infer that employees who perceive their leadership as authentic are more likely to be engaged in their work. Avolio and Luthans (2006) echoed the same theme by proposing a positive link between work engagement and authentic leadership. Moreover, Schaufeli and Salanova (2007) demonstrated that certain element of effective leadership such as constructive feedback, interest in followers' professional development and career progression, supervisory coaching for goal setting, organizing their work, and offering guidance as needed, were positively associated with followers' work engagement.

Finally, authentic leadership is characterized by deep sense of purpose, high levels of integrity, and strong commitment to personal core values. These attributes of authentic leaders make them role models for their followers. According to Avolio, Schaubroeck, Walumbwa, Wang, and Wang (2010), followers of authentic leaders are more likely to identify with them. This identification with the boss may make them feel more psychologically empowered, which may result in increased levels of work engagement. Therefore, they recommended that managers should cultivate an ethical work climate by demonstrating if they wish to lead a team of highly engaged employees.

Several recent studies offer empirical support for the positive relationship between authentic leadership and work engagement. For instance, Avolio et al. (2010) found a positive relationship of authentic leadership with followers' level of work engagement and their organizational citizenship behavior. Similarly, Hassan and Ahmad (2011) found that authentic leadership was a significant predictor of work engagement and this relationship was partially mediated by interpersonal trust. Bamford, Wong, and Laschinger (2013) found that nurses working with authentic managers reported significantly higher levels of work engagement and person-job match. Wang and Hsieh (2013) also found that work engagement was positively linked with supervisors' concordance between words and actions and their moral perceptions among a large sample of employees of manufacturing and service industries of Taiwan. In a similar vein, Kumar and Israel (2012) found that promotive

psychological ownership fully mediated the relationship between authentic leadership and work engagement in Indian employees of various professional organizations.

Authentic leadership and job related affective well-being. The very definition of authentic leadership, which conceptualizes it as a process that assimilates positive leaders capabilities and highly developed organizational context for enhancing self-awareness and self-regulated positive behaviors for stirring self-growth and personal development (Luthans & Avolio, 2003) explicates its strong and positive impact on psychological well-being.

According to Ilies, Morgeson, and Nahrgang (2005), authenticity reflects one's inclinations to conceive oneself within one's social environment and the extent to which one is leading life in consonance with one's core values. It may be inferred that authentic leaders lead a satisfying life because they express their true self in their daily lives, which in turn may make them self-realized, with a capacity to influence their followers' well-being positively.

Ilies et al. (2005) identified parallels between the four components of authentic leadership and the six facet of human well-being suggested by Ryff and Keyes (1995). They cogently reasoned that unbiased processing and self-awareness (authentic leadership dimensions) might result in improved environmental mastery, purpose in life, and self-acceptance (facets of well-being). Relational transparency may serve as a precursor to positive relationships whereas balanced processing and self-awareness (authentic leadership dimensions) may lead to personal growth (well-being dimension). Finally, authentic actions and behaviors are voluntary and self-regulated therefore; they may correspond to self-determination dimension of well-being.

Literature suggests five routes through which authentic leaders may positively influence their followers' well-being (Ilies et al., (2005). Firstly, since authentic leaders lead by examples, their followers are more likely to identify with them and may internalize their leaders' enhanced self-awareness and personal integrity. This establishes interpersonal trust and enduring working relationships. Secondly,

authentic leader influences followers' well-being through the mechanism of positive emotional contagion whereby authentic leader's own positive emotions influences their followers' experiences and establishment of such an ethical work climate as conducive to experiencing positive emotions. Thirdly, followers of authentic leaders conceive them as positive behavioral models for personally authentic and expressive behaviors. Fourthly, authentic leaders provide opportunities for personal development, autonomy, and new skills acquisition for their followers, which facilitate them in achieving self-determination. Finally, social exchanges in terms of reward systems constitute the fifth mechanism through which authentic leaders contribute to their followers' well-being.

Job Demands-Resources Model (JD-R Model)

A very important objective of the present research was empirical testing of job demands-resources model in relation to relatively new positive organizational constructs like psychological capital and psychological ownership. Furthermore, the present study also incorporated well-researched job demands (quantitative overload) and resources (job autonomy and social support) as mediators of the relationships between the aforementioned positive organizational constructs, engagement, and burnout. Another salient reason of including these established job demands and resources in the models of the present study was to test whether psychological capital and psychological ownership are capable of explaining unique variances in the work outcomes beyond the variance explained by quantitative overload, job autonomy, and social support.

Role of Personal Resources

A noticeable finding of the present study is that both psychological capital and psychological ownership appear to be important positive personal resources. Personal resources are aspects of the self, which are generally linked to resiliency and involve individuals' sense of their ability to influence and regulate their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003). In the present study, both

psychological capital and psychological ownership provides impetus to the employees to be efficacious and instrumental in bringing in the desired work outcomes (in-role performance, extra role performance, and job related affective well-being) and reducing the likelihood of negative work outcomes (counterproductive work behaviors and burnout) directly as well as indirectly after the established organizational and job factors like social support, job autonomy, and quantitative overload and personality factors like positive and negative affectivity were controlled.

Psychological capital as personal resource. Employees who hold personal resources are confident about their capabilities and optimistic about their future, and thus may identify or even create more aspects of their environment that facilitate goal attainment. This capability leads to goal confrontation and consequently to work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). This suggests that these positive personal capabilities have their own unique place in the repertoire of personal resources and these are remarkable enough to explain additional variance in the work outcomes against the established personal, job, and organizational factors. This provided the rationale for 3rd hypothesis of the present research that was supported across the models (see Table 54, 60, 63, & 66) except for the model of organizational citizenship behavior where psychological capital could not explain addition variance in OCB beyond the variance explained by the control variable of positive affectivity (see Table 57). This finding is important in the sense that it justifies psychological capital and psychological ownership are worth studying as positive organizational constructs in relation to desirable and negative work outcomes. The predictive power of these positive resources indicates that they are going to be in the mainstream research on job demands-resources model for several coming years as the most important personal resources.

The unique role of psychological capital as an important personal resource is further augmented by the finding of this research that indicated that psychological capital had negligible relationship with job demands (quantitative overload). Although this finding rejects our 35th hypothesis (see Table 51 & 69), yet it makes a meaningful sense. Employees' psychological capital, being a personal resource, is not influenced

by external work demands rather it equips the employees with a safeguard from burnout while simultaneously inculcating enhanced work engagement among them to better cope with the occupational pressures. This line of reasoning is further invigorated by the point that results of present study have indeed revealed psychological capital as having a direct negative effect on burnout and positive effect on engagement (see Table 69 & 70).

Indeed, recent research has already embarked on these positive capacities as important personal resources. Avey et al. (2009), for instance, argued that psychological ownership is an important positive personal resource that might be conceived as a component of psychological capital. Xanthopoulou et al. (2007) found that besides influencing the conception of job resources, personal resources (optimism, self-efficacy, and organizational based self-esteem) also mediated between job resources and engagement/exhaustion. Previous research has also documented that the beneficial effects of personal resources are not only limited to stress resilience, they may have constructive influences on affective and physical well-being (Chen, Gully, & Eden, 2001; Pierce, Gardner, Cummings, & Dunham, 1989; Scheier & Carver, 1992). Van Yperen and Snijders (2000) demonstrated general self-efficacy as moderator between psychological health symptoms and job demands. Similarly, under stressful working conditions (i.e., high job insecurity, high time pressure, and poor organizational climate), optimistic employees had experienced lower levels of distress than their less optimistic counterparts (Ma¨kikangas & Kinnunen, 2003) had. Finally, Xanthopoulou et al. (2007) suggested that optimistic and self-efficacious are likely to experience lower levels of exhaustion and increased levels of work engagement because they are more focused on job resources than the job demands. Their results also revealed a preventative role of personal resources as well in that resilient employees are more likely to evaluate stressful situations in positive and manageable terms, which in turn may prevent exhaustion and burnout (see Ma¨kikangas, Kinnunen, & Feldt, 2004). Alternatively, it can be assumed that employees working in a resourceful environment may perform their tasks more easily without any excessive exertion because of which they are less likely to be exhausted or fatigued. This line of reasoning is also empirically supported as Hobfoll (1989, 2002) and Xanthopoulou et

al. (2007) found that optimistic and efficacious employees reported report lower levels of exhaustion, which suggest that they might be more resilient in coping with adverse conditions.

Psychological ownership as personal resource. To the researcher's knowledge, this is the first study that has investigated the role of preventive and promotive psychological ownership in relation to burnout and work engagement. Promotive psychological ownership turned out to be a very powerful personal resource that has explained unique variances in all proposed work outcomes after positive and negative affectivity were controlled. Incorporating the psychological ownership into the JD-R model, preventive psychological ownership, or territoriality was assumed a part of the energetic process and promotive ownership as part of the motivation process. Job resources were positively related to engagement (23rd hypothesis was supported; see Table 69) whereas territoriality predicted burnout in positive direction (supporting our 11th hypothesis; see Table 68). More specifically, it was hypothesized that territoriality would indirectly lead to burnout through job demands (34th hypothesis), whereas promotive ownership would indirectly lead to work engagement through job resources (25th hypothesis). Both of these hypotheses were supported. Job demands fully mediated the positive relationship between territoriality and burnout whereas job resources partially mediated between promotive ownership and work engagement.

The conceptualization of two distinct forms of ownership is grounded the work of Higgins' (1997, 1998) regulatory focus theory, which postulates that human beings have promotion focused and prevention focused regulatory systems. Kark and Van Dijk (2007) noted that individuals who primarily operate through preventative mechanism are more concerned about their responsibilities and duties and are more likely to experience feelings of anxiety and irritation whereas individuals who regulate through promotion focused mechanism are more willing to take risk because they are more concerned about their ambitions and achievements whereas. For Higgins, self-regulation is the process or the way of selecting one's goals. Individuals with promotion-focused orientation pursue goals that are consistent with ambitions

and aspirations. Contrarily, those who use prevention goals are more concerned about rules and regulations, obligations, and the ways of avoiding punishment. Accordingly, for employees with preventative ownership, it becomes very important to meet the deadlines, to execute their task the way they are used to do without any innovative approach. Thus, their work may become a routine for them in which they are not absorbed with vigor and dedication.

When individuals form bonds of ownership over objects in the organization including physical, informational, or social objects, they may seek to mark those possessions as belonging exclusively to themselves (Avey et al., 2009). Therefore, such employees are not ready to share their knowledge or skills with their coworkers for the overall progress of their organization. Results of present study also support this as territoriality was inversely related to social support. Consequently, these employees may not enjoy social support in their organization and may become prone to experience an atmosphere of apprehensions that they might have been deprived of their status, privileges, tasks, or jobs had someone else been able to show up with better capabilities. Territoriality leads people to become too preoccupied with ‘‘objects of ownership,’’ at the expense of their performance or other pro-social behaviors. Furthermore, the fear of losing one’s territory and associated self and social identity may promote politicking and prohibit transparency, collaboration, and information sharing (Avey et al.). When such employees are exposed to increasing job demands coupled with relatively few job resources, they are likely to be burnt out.

Avey et al. reasoned that in contrast with territoriality, employees high on promotive ownership might experience feelings toward targets of ownership that are quite different from those who are prevention oriented. For instance, in a situation where information sharing is assumed to be a source of positive change and growth within a company, a manager who owns her/his organization in promotion focused orientation would certainly share information about her/his recently successful project with project teams of other departments because s/he sees growth of the company as personally fulfilling. Such an employee is likely to enjoy social support from her/his

organization. Thus, the positive personal resource of promotive ownership coupled with job resource of social support would probably yield an engaged employee.

Another significant finding of the present study pertaining to energetic or ill health process of JD-R model delineates the mediating role of burnout between lack of personal resources and work engagement. More specifically, findings of present study indicated that burnout mediated the relationship between lack of psychological ownership and work engagement. In other words, employees who are low on psychological ownership are more likely to develop burnout and this burnout would further reduce their work engagement. Thus, our 27th hypothesis is supported. This is quite in line with the predictions of JD-R model according to which job resources particularly influence motivation or work engagement when job demands are high (Bakker & Demerouti, 2006), because employees who do not have access to strong resource pools are more likely to experience increased loss (Hobfoll & Shirom, 2000). A similar finding was reported by Hakanen et al. (2006) who found that burnout mediated between job resources and work engagement among teachers. Similarly, negative association between job resources and burnout was reported by Bakker, Demerouti, and Verbeke (2004). Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) found that personal resources of self-efficacy, optimism, and organizational based self-esteem negatively predict emotional exhaustion.

Role of Job Demands

As already mentioned, the present study has incorporated quantitative overload as an important job demands among university teachers. Job demands are those physical, social, or organizational aspects of the job that require sustained physical and/or psychological effort and are, therefore, associated with physiological and/or psychological costs (Xanthopoulou et al., 2007). Job demands-resources model predicts that high job demands, which require sustained effort, lead to energy depletion and health problems. The present study has exactly found the same as quantitative overload was positively related to territoriality (see Table 51) and it was a significant and positive predictor of burnout (see Table 69). Thus, 33rd hypothesis of the present study was supported.

According to Bakker and Demerouti (2006), job demands (work overload, emotional demands) may result in impaired health because chronic job demands or poorly designed jobs drain employees' physical and mental resources, which lead to depletion of energy i.e., exhaustion and ultimately culminates in the form of serious health issues (e.g. Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Leiter, 1993). Hockey (1993) believed that people's choices of performance-protection strategies are strongly influenced by environmental demands. Performance protection is attained through increased personal efforts (using active control in information processing) and/or the activation of sympathetic systems (autonomic and endocrine). Thus, activation and efforts have a positive linear relationship with physiological costs for the individual. Although using this strategy does not result in a directly observable decrease in performance on the primary tasks, Hockey's theory suggests that numerous patterns of indirect decrement in performance may be recognized. These indirect detrimental effects on performance may involve strategy adjustments (narrowing of attention, increasing selectivity, reassessment of task requirements), compensatory costs (greater subjective effort and/or activation), and fatigue after-effects (high levels of personal exhaustion, risky

choices). The long-term consequence of these compensatory strategies may deplete individual's energy, which culminates in a breakdown.

Numerous studies have found that job demands are positively associated with burnout (Bakker, Demerouti, De Boer, & Schaufeli, 2003; Bakker, Demerouti, & Euwema, 2005; Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001; Llorens, Bakker, Salanova, & Schaufeli, 2006; Schaufeli & Bakker, 2004) and particularly to its exhaustion component (Bakker, Demerouti, De Boer, et al., 2003; Bakker, Demerouti, & Verbeke, 2004; Demerouti, Bakker, Nachreiner, et al., 2001; Lewig & Dollard, 2003). Schaufeli and Bakker (2004) in a multi sample study of various occupation groups found that lack of job resources, job demands were significant predictors of burnout, and burnout had a mediational role between job demands and ill health. Jackson, Rothman, and van de Vijver (2006) also found that job demands lead to burnout and burnout mediated between job demands and ill health among educators in South Africa. Finally, in a longitudinal study of telecom manager, Schaufeli, Bakker, and Rhenen (2009) found that increases in job demands (i.e., overload, emotional demands, and work-home interference) and decreases in job resources (i.e., social support, autonomy, opportunities to learn, and feedback) predict burnout and burnout (positively) and engagement (negatively) predict registered sickness duration ("involuntary" absence) and frequency (''involuntary'' absence), respectively.

Role of Job Resources

The present study has incorporated social support and job autonomy as salient job resources for Pakistani university teachers. The results of the current research are in concordance with the predictions of JD-R model. Job resources were positively related to performance, organizational citizenship behavior, job related affective well-being, engagement, and personal resources of psychological capital and promotive ownership. This constitutes support for our 23rd hypothesis (see Table 51). In contrast, job resources were negatively related to burnout and counterproductive work behaviors supporting 24th hypothesis of this study (see Table 51). Job resources predicted work engagement and mediated the relation of personal resources including

promotive ownership and psychological capital with work engagement providing support for 25th and 26th hypotheses of the present work (see Table 69). Furthermore, our 27th hypothesis was also fortified as results of this research have demonstrated that burnout mediates between lack of job resources and resulting poor engagement of academicians (see Table 69).

These findings of the present study can be understood in terms of the second process proposed by the JD-R model. This process is motivational in nature, whereby it is assumed that job resources have motivational potential and lead to high work engagement, low cynicism, and excellent performance. Job resources induce extrinsic motivation among employees because either they are instrumental in attaining organizational goals or they may boost employees' intrinsic motivation because they promote employees' development, growth, and learning. In former case, effort-recovery model (Meijman & Mulder, 1998) elucidates that work environments replete with many resources enhances employees willingness to invest their efforts and skills in their jobs, which is likely to result in successful task completion and achievement of work goals. For example, appropriate feedback from one's supervisor and supportive coworker may increase the chances of being successful in attaining one's work goals. Job resources may also intrinsically motivate employees because they are instrumental in fulfilling basic human needs (Deci & Ryan, 1985), such as the needs for competence (White, 1959), autonomy (DeCharms, 1968), and belongingness (Baumeister & Leary, 1995). For example, proper feedback promote learning, which result in increased job competence, whereas social support and decision latitude satiate the need for belongingness and autonomy, respectively (Bakker & Demerouti, 2006). In either case, whether through achievement of work goals or through the gratification of basic needs, the presence of job resources results in engagement, whereas their absence induces a sarcastic attitude towards the job (Bakker & Demerouti, 2006) which may in turn lead to reduced engagement in one's work.

Numerous studies have found empirical support for the proposed motivational process of JD-R model. According to Schaufeli, Bakker, and Van Rhenen (2009), there has been a consistent positive relationship between job resources (and not job

demands) and work engagement (c.f. Hakanen, Bakker, & Schaufeli, 2006; Llorens, Bakker, Salanova, & Schaufeli, 2006; Schaufeli & Bakker, 2004). In their 2-year longitudinal study, Mauno, Kinnunen, and Ruokolainen (2007) demonstrated that even after controlling for the base-line job demands, base-line job resources explained about 4 to 10% of unique variance in engagement. The mediating role of work engagement between job resources and various reflectors of organizational outcomes is also empirically supported across a variety of studies (Hakanen et al., 2006; Llorens et al., 2006; Schaufeli & Bakker, 2004). Finally, in a relatively recent longitudinal study of Australian university teachers, Boyd, Bakker, Pignata, Winefieldand, Gillespie and Stough (2011) found that time 1 resources (procedural fairness and job autonomy) directly predicted Time 2 strain and organizational commitment whereas time1 job demands including work pressure and academic workload predicted time2 strain. Their study was robust in the sense that they also tested the reversed causal effect and found no support that time1 psychological strain predicted times job demands.

Moderations

Several variables were hypothesized as important moderators of cardinal links in various proposed models. This section is couched with a view to discuss salient moderators in terms of pertinent theory and literature. Quantitative overload (as job demand), job autonomy, and social support in the organization (as job resources) were key moderators in addition to authentic leadership, work engagement, and psychological capital.

Quantitative overload. Quantitative overload was incorporated as a job demand in the present study. It moderated between psychological capital and promotive psychological ownership such that it dampens the positive relationship between the two. In other words, the positive relationship between psychological capital and psychological ownership holds more strongly when quantitative overload is low. Under high quantitative overload, the relationship remains positive, but the slope of relationship is not that much steeper as in the case of low quantitative

overload Hence, our 28th hypothesis was defended (see Table 55 & Figure 32). No published research is available on psychological ownership in relation to psychological capital and quantitative overload. Therefore, this finding is exploratory in nature. Given the positive relationship between quantitative overload and promotive ownership, and the positive relationship between promotive ownership and psychological capital, this finding of moderation suggests that for employees who are high on psychological capital, increased quantitative overload may lead to somewhat reduced psychological ownership. Employees who are high on psychological capital are more likely to be engaged in their work. In case when quantitative overload increase, such employees are expected to put extra efforts for meeting the work demands which may deplete their personal resources. This reduction in personal resources may eventually reduce their psychological ownership.

The moderating role of quantitative role overload between psychological capital and job related affective well-being demonstrated that the positive relationship between psychological capital and affective well-being is strongest under higher levels of quantitative role overload. This is contrary to 30th hypothesis of the present research (see Table 61 & Figure 43), which was grounded in job demands-resources model (JD-R Model; Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004) according to which job demands such as quantitative role overload require sustained mental and physical efforts at the expense of certain physiological and/or psychological costs which may result in burnout and reduced affective well-being among university teachers. Although refutation of this hypothesis may appear contrary to the nature of job demands as specified by job demands-resources model, yet it is quite consistent with another important postulate of the same model, which proposes that contribution of job resources in employees' motivations, well-being, and work engagement is especially pronounced when job demands are high (Bakker & Demerouti, 2007). Psychological capital, being a positive personal resource (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007; Vink, Ouweneel, & Le Blanc, 2011), has the potential to buffer the negative effects of increased quantitative role overload on university teachers' job related affective well-being and this shielding influence is discernable in steeper slope of regression line between psychological

capital and job related affective well-being under high quantitative role overload (see Figure 43). This demonstrated that positive relationship between psychological capital and work related well-being was stronger under conditions of high quantitative overload. When employees are rich in psychological capital, an increase in quantitative overload does not decrease their job related affective well-being. However, when employees are lacking in psychological capital an increase in quantitative overload corresponds to a decrease in affective well-being.

Quantitative role overload also served as moderator between authentic leadership and burnout in such a way that it strengthened the negative relationship between burnout and authentic leadership. In other words, when authentic leadership is high, increase in quantitative overload does not result in burnout. Thus, authentic leadership may serve a buffering role against the negative consequences (burnout) of job demands (quantitative role overload). This is quite in line with the pertinent leadership literature. A leader's cardinal role is motivating the followers to thrive with their full vigor and dedication towards the attainment of organizational goals. Alternatively, instilling the affective motivational state of work engagement among the followers is the hallmark of successful leadership. Harter, Schmidt, & Hayes (2002) observed that work engagement could be optimized through supporting, recognizing, and developing employees. By virtue of their relational transparency, self-awareness, balanced processing of information, and internalized moral perspective, authentic leaders concentrate on developing their follower (Gardner et al., 2005; Luthans & Avolio, 2003). Authentic leaders lead with determination, meaning, and value and have the capacity of building stable relationships (Avolio & Gardner, 2005; George, 2003). The transparency of dealing with challenges on the part of authentic leaders may make their followers internalize their leaders' beliefs and values because they model leader's character, his/her personal example, and dedication rather than the dramatic presentations, symbolism, inspiring appeals, or other practices of impression management (Gardner & Avolio, 1998). Thus, followers of authentic leaders are more likely to adopt strain coping mode and strive for their performance standards even in the face of increased quantitative role overload. The associated compensatory psychological and/or physiological costs are also

manageable for them because being an important job resource, effective leadership instills a sense of work engagement in them, they experience a positive, and fulfilling work related motivational state of mind that prevents them from being burnt out.

Finally, quantitative overload also moderated the relationship between work engagement and in-role performance providing support for 29th hypothesis of this study (see Table 55 & Figure 34). More specifically, engaged employees demonstrated better in-role performance when quantitative role overload was high. This finding is quite in line with the conceptual grounds of work engagement. Engaged employees are dedicated to their work and immersed in their tasks to the extent that time at job flies for them. For engaged employees work is a source of joy and intrinsic motivation. Accordingly, when quantitative overload increase, such employees embrace opportunity to get more and more engaged in their work, which ultimately enhances their in-role performance.

Social support. The present study conceived social support from the organization as an important job resource for university teachers in Pakistan. Social support moderated multiple relationships. Firstly, social support moderated between work engagement and performance such that the positive relationship between work engagement and in-role performance is stronger when employees perceive high social support from their organization. Thus, our 15th hypothesis was justified (see Table 55 & Figure 35). Numerous studies have demonstrated that social support is an important job resource, which help employees achieve their job goals. According to job demands-resources model, job resources not only facilitate in achieving the organizational goals but they may also buffer the negative impact of job demands (Balducci, Fraccaroli, & Schaufeli, 2011; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Maslach, Jackson, & Leiter, 1986; Schaufeli & Bakker, 2004; Schaufeli, Bakker, & Van Rhenen, 2009). Thus, this finding is quite in line with the pertinent literature. Social support as a job resource may enhance employees' work engagement, which in turn may lead to increased job performance.

Secondly, social support also moderated the relationship between authentic leadership and organizational citizenship behavior such that the marginal relationship between the latter two became significant and positive when social support was high. This suggests a confirming evidence for 16th hypothesis of this study (see Table 58 & Figure 39). Authentic leadership is a relatively new construct and research on authentic leadership in relation to important work outcomes is still in infancy. Nevertheless, the available evidence suggests a positive relationship between authentic leadership and OCB (Walumbwa et al., 2008; Walumbwa, Luthans, Avey, & Oke, 2011). Although the zero order correlation between these two constructs was positive and significant (supporting our 6e hypothesis; see Table 51), in SEM analyses, authentic leadership did not predict OCB. It is quite possible that the inclusion of other variables like psychological capital, job autonomy, and positive affectivity might have explained significant proportion of variance in OCB and authentic leadership could not explain any additional variance. Indeed this was the case with work engagement and psychological capital as well, which failed to predict OCB in the presence of positive affectivity as a control variable.

Here, we first need to understand the relationship between authentic leadership and organizational citizenship behavior (OCB). Group engagement model (e.g., Tyler & Blader, 2000) suggests that being the distributors of rewards pertaining to OCB, leaders play a key role in facilitating their followers' prosocial behavior (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Tyler and Blader (2000) suggested that a positive work environment where group members appreciate the need of helping others for the achievement of group goals is established when authentic leaders are transparent, exhibit their ingenuousness in the context of information sharing, and respect their followers' opinions (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Walumbwa, Luthans, Avey, & Oke, 2011). In addition, Isenberg (1988) suggested that information sharing among group members might enable them to comprehend even small cues and fill in the blanks. Empirical support for positive associations between leadership and group-level citizenship behaviors (e.g., Sparrowe, Soetjipto, & Kraimer 2006; Walumbwa et al., 2009), and particularly between authentic leadership and citizenship behaviors at the individual-level of

analysis (e.g., Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010) is also emerging in the pertinent literature.

Given that social support in the organization has been conceptualized as an important job resource in the present study as well as numerous other studies, it can be argued that social support may help spawn a supportive and positive environment where employees are ready to help each other beyond their prescribed roles in order to maximize their interpersonal and organizational gains. This encouraging environment may inculcate an attitude of openness among the employees where they trust in information sharing, transparency, and embracing of each other's opinions. Such an environment may delineate the typical characteristic of authentic leadership. Thus, citizenship behavior would certainly be high in a work environment where both authentic leadership and social support prevail.

Thirdly, social support moderated the positive relationship between work engagement and job related affective well-being such that this relationship is stronger when social support is low. This finding was contrary to 17th hypothesis of the present study (see Table 61 & Figure 44). Social support may buffer the negative effect of lack of engagement on job related affective well-being. When social support is high in the organization, being disengaged does not reduce job related affective well-being to the proportion it does when social support is also low. This is in line with the assumptions of JD-R model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004) which posits that job resources may buffer the negative impact of job demands. Under occupational stress and chronic job demands when employees' energy is depleted and s/he is blue, disengaged from her/his job, and feeling worthless; social support from her/his colleagues and supervisor may help her/him regain confidence and a rejuvenated interest in her/his job. Thus social support as a job resource may facilitate a disengaged employee in maintain her/his affective welling which otherwise would have also been dropped.

Finally, social support moderated the relationship between lack of authentic leadership and work engagement. The direction of this moderation was also contrary

to 18th hypothesis of this research (see Table 55, 58, 61, & 66; Figure 38). The moderation analysis revealed a buffering impact of social support on negative relationship between engagement and lack of authentic leadership. The relationships of social support with authentic leadership and work engagement have already been discussed. The current moderation suggested that in case of lack of authentic leadership, social support plays a compensatory role in maintaining work engagement of employees. Employees are most likely to be disengaged when both authentic leadership and social support are low. When social support is high, the positive relationship of authentic leadership with engagement is diminished. Thus, we may infer that in a work environment where leadership lacks in authenticity, employees are not disengaged from their work if they enjoy social support from their organization. This buffering role is again augmented by JD-R model as already has been discussed.

Job autonomy. The present study provides empirical evidence for the proposition that job autonomy served as an important job resource for university teachers in Pakistan. Job autonomy turned out to be a moderating factor for several key relationships in the proposed models of the present study. For instance, job autonomy moderated between authentic leadership and OCB in the same fashion as social support did moderate the same relation. More specifically, the negligible relationship between the latter two becomes significant positive when job autonomy is high. This provides support for our 20th hypothesis (see Table 58 & Figure 40). The reasons why authentic leadership did not predict organizational behavior have just been discussed. Job autonomy is a very powerful job resource that has demonstrated its buffering potential upon the negative consequences of job demands in various studies (Bakker, Demerouti, & Euwema, 2005; Balducci, Fraccaroli, & Schaufeli, 2011; Schaufeli, Bakker, & Van Rhenen, 2009; Xanthopoulou, Bakker, & Dollard et al., 2007). Thus, job autonomy should be instrumental in bringing in the positive and desired work outcomes such as OCB. Employees would be more engaged in their work if they are free to make their decisions on their own, to pace their work according to their own convenience, and are fully accountable for their work. Such engaged employees relishing their work are likely to be supportive for each other and

may go extra miles in helping their coworkers. Thus, higher levels of job autonomy should yield a supportive environment filled with positive citizenship spirit.

To the best of our knowledge, no published study has yet examined the relationship between authentic leadership and job autonomy. The results of present study demonstrated that job autonomy has a strong and direct relationship with authentic leadership. Authentic leaders build their reputation on trustworthiness, high moral standards, and the positive psychological capacities and resources they bring to the leadership role and model for followers' authenticity through self-awareness and relational transparency. They foster positive affective states which then spread and reverberate through social contagion processes to positively foster emotional and cognitive development of other organizational members as well as organizational learning and transformation (Avolio & Gardner, 2005) by delegating decision latitude and job autonomy to their followers. Such leadership is successful in creating an environment of trust where employees are not only compassionate for each other but also considerate enough for their organization to transcend their formal job descriptions in achieving organizational excellence. Thus, when job autonomy prevails in the work environment, authentic leadership would be more successful in eliciting citizenship behaviors from their followers.

Job autonomy also moderated between ownership and well-being such that their positive relationship was stronger when autonomy was low. In other words, it may be inferred that job autonomy moderated between lack of promotive ownership and job related affective well-being. The direction of this moderation was also contrary to hypothesis 21 (see Table 61 & Figure 45). Job autonomy, as a job resource buffer the negative relationship between lack of promotive ownership and job related affective well-being. This finding is also in concordance with JD-R proposition that job resources may buffer the negative consequences of chronic job demands. This moderation analysis suggests that if employees do not psychologically own their organization but enjoy decision latitude or job autonomy, there job related affective well-being is not that much reduced as it would be if job autonomy or decision latitude is low. Overall, it was observed that job resources of social support and job

autonomy did not strengthen the positive relation of psychological ownership and work engagement with job related affective well-being. Instead, both of these job resources demonstrated their buffering effect on job related affective well-being in case of lack work engagement and psychological ownership.

A very important moderating role of job autonomy surfaced between the relationship of work engagement and burnout. Interestingly, the negative relationship between work engagement and burnout only holds when job autonomy is low. Alternatively, it might be concluded that autonomy moderated the relationship between lack of work engagement and burnout which means that when engagement is low, employees who have highest degree of job autonomy would be least burnout whereas employees who do not have enough autonomy on their job would be most likely to be burnt out. Thus, job autonomy demonstrated its buffering role against burnout for employees who are low on work engagement, which supported our 22nd hypothesis (see Table 67 & Figure 51). This finding can also be interpreted in terms of JD-R model which poses that job resources may buffer the energetic process i.e., job resources such as job autonomy reduces the chances of being prey to burnout or health impairment processes.

Impact of Demographics

The present study has explored certain demographics of university teachers in relation to variables of the present study. Among the main effect of demographic variables, only faculty has demonstrated a significant effect on territoriality where faculty of arts and social science had greater mean score on territoriality as compared to their counterparts in science faculty. This difference might be attributed to the subject matter of arts and sciences. Faculty members of arts and social sciences have to be more creative in terms of ideas and abstract thinking as compared to faculty members of science who are more production and technology oriented. Therefore, university teachers of arts and social sciences might have greater safeguards for their novel ideas, creative writings, and abstract thinking. Teachers of sciences are also trained to share their research work with the researcher community so that their work

might have been empirically validated. Therefore, they might not be that much possessive for their ideas, jobs, and institutions as arts teacher are.

Among the significant 2-way interactions, age and faculty had significant interactive effect on psychological capital, work engagement, positive affectivity, and negative affectivity. The results suggest as if psychological capital progresses with age across both the faculties, however this relationship is more pronounced in science faculty. With increasing age, job experience is enhanced and thinking pattern is matured. After 30 years of age, most of science faculty might have developed very specialized interests in their specific fields along with their defined career and research goals. They are self-efficacious and might pursue their objectives with greater levels of optimism and hope as compared to their counterparts in arts faculty. Therefore, they might get richer in psychological capital with the passage of age. In case of work engagement, age appeared to have no influence on faculty of science; however, younger faculty of arts is more engaged in their work as compare to their elder counterparts. Young teachers in faculty of arts and social sciences might have been more energetic and ambitious towards their career. They have to be more engaged in their teaching and research if they are to be recognized in their disciplines. Crossing their 30s, they have established themselves in their departments; therefore, their level of engagement might fall.

In terms of personality traits of positive and negative affectivity, elder science teachers are more positive as compared to their counterparts in arts and social sciences. Levels of positive affectivity are comparable for both the faculties in case of younger group. The mastery experiences of chronically and mentally matured science teachers might have enhanced their positive affectivity. The reverse pattern is true for negative affectivity where younger teachers of arts and social science are least negative whereas their counterparts in science faculty are the most negative ones. This pattern of relationship suggest that positive and negative affectivity are two independent construct rather than being two opposite poles of single continuum. Meta-analysis of relationship between affectivity and work outcomes by Ng and

Sorensen (2009) and several other studies support this line of reasoning (e.g., Hochwarter, Zellars, Perrewe, & Harrison, 1999; Watson, David, & Suls, 1999).

Age and academic qualification have significant interactive effect on psychological capital, psychological ownership, organizational citizenship behavior, negative affectivity, and counterproductive work behaviors. The pattern of relationship suggests that psychological capital and ownership is highest among younger university teachers having MPhil/MS degrees. MPhil/MS degree is a transition between master's level education and PhD level learning. During this transition, university teachers have to be very ambitious, energetic, optimistic, and self-efficacious for the successful pursuance of their PhD degrees. Most of them are being supported by their employing universities for the completion of their PhDs. Therefore, they are rich in psychological capital and have a strong ownership for their universities.

In case of organizational citizenship behavior (OCB) and counterproductive work behaviors (CWB), elder teachers having 16 years of education demonstrated lowest levels of OCB and highest levels of CWB. This can partially be attributed to their heightened negative affectivity (as this very group had the highest mean score on negative affectivity). This group is over 30 years of age and has lowest educational level, which might make them feel inferior to their younger colleagues having higher educational levels. They might have to face more job stressors with less job resources. In such a job context, they are no more motivated to exhibit citizenship behaviors and their dispositional negativity might make them more vulnerable to counterproductive work behaviors.

Age and job experience produced significant interactive effect on psychological capital and job autonomy. The findings indicated that more experienced university teachers with more than 30 years of age are richer in psychological capital and enjoy more job autonomy as compared to younger and less experienced teachers. People who are more than 30 years of age are mentally more mature and might have

internalized their job roles. Coupled with their rich job experiences, they might have been more apt at their jobs because of which they could enjoy more job autonomy.

Age also interacted with gender to produce significant interactive effects on psychological capital, positive affectivity, and territoriality. The results suggested that women university teachers who are more than 30 years of age are richer in psychological capital and are more positive than their younger counterparts and the male university teachers of the same age group. These female university teachers have got themselves recognized in their careers because of their self-efficacious disposition, optimistic attitude towards life, and resilient nature against the setbacks. They might enjoy much more financial and social freedom as compared to typical Pakistani women, which make them more positive in their orientation. Younger female university teachers are yet to be established in their careers and many of them might not continue their careers after getting married. They might have less education, might lack job experience, and might have lower job designations. Being dependent on their parents and family, they also do not enjoy that status of freedom as their elder counterparts do.

The three-way interaction of age, faculty, and qualification had significant effect on psychological ownership and organizational citizenship behavior (OCB). The findings suggested that younger teachers of both faculties with 16 years of education had lowest level of psychological ownership. This age group might be more ambitious and at the beginning of their career. They might want to study further and excel in their careers at other universities of their preferences. Therefore, their level of ownership is relatively low as compared to more educated and senior teachers. Young science faculty with 16 years of education demonstrated highest levels of OCB. This group is probably struggling for their jobs and trying to establish themselves in their careers. Citizenship behaviors might help them in performing beyond their prescribed job roles and get themselves recognized amongst their seniors.

Age, faculty, and job experience demonstrated another significant three-way interaction in relation to psychological capital, job autonomy, positive affectivity, and

burnout. Results suggested that for both the faculties, more experienced teachers with more than 30 years of age were richer in psychological capital and enjoyed more job autonomy. Experienced university teacher might be well versed in teaching and research and might possess more intellectual and rational ripeness because of which they are more autonomous in their jobs. Furthermore, as demonstrated in the structural models of the present study, job autonomy and psychological capital are strongly related with each other. It is quite possible that the experienced teachers were more adapted to the organizational culture of their departments/universities through their professional learning via their observation and mastery experiences, which in turn might have inculcated self-efficacy beliefs and optimistic attitude towards life. Thus, their richness in psychological capital might suggest another origin of their greater job autonomy.

In case of burnout, less experienced university teachers of arts and social sciences with more than 30 years of age had the highest mean score. University teaching is a challenging profession, which requires the best of physical and mental capabilities. The experienced teachers have learnt how to cope the professional demands of this occupation whereas the less experienced but younger teachers have right amount of energy, dedication, and ambition to overcome the challenges. In contrast, teachers who are less experienced and are more than 30 years of age neither could draw from their experience nor could they over tax their mental and physical faculties for handling with their job demands. Consequently, greater experience of burnout is inevitable.

Age, faculty, and gender yielded significant interactive effect in relation to work engagement, OCB, and negative affectivity. The results suggested the male teachers of arts and social sciences who are less than 30 years of age had highest mean score on work engagement and OCB and the lowest mean score on negative affectivity. Being young scholar of arts, literature, and liberal sciences, they do not wear the skeptical glasses, which characterize a scientific approach. Therefore, they are relatively low on negativity. Yong male teachers have higher levels of mental and physical energy and they are more ambitious and dedicated towards their profession

that they have just begun. As per our indigenous gender roles, being the breadwinners, career is of utmost importance for male teachers. Therefore, they have to be more engaged in their work at this initial yet decisive stage of their careers. However, this is not the case for young female teachers, most of whom might be working in university settings until their marriages. For them, their job is not that much central to their lives as it is for their male counterparts. An engaged university teacher accomplishes the true sense of work engagement when he goes beyond the prescribed job role in helping her/his colleagues, giving extra time to the students, being helpful in resolving personal issues of students and so on. Thus, a faculty member who is high on work engagement is also likely to be high on OCB. This line of reasoning is augmented by the structural model of OCB of the present research and several other researches as well (Babcock-Roberson & Strickland, 2010; Ehigie & Otukoya, 2005).

Age, academic qualification, and job experience had significant interactive effect on authentic leadership. Young university teachers having PhD degrees with less than four years of job experience had the highest mean score on authentic leadership. This group of teachers might have not yet been socialized well within her/his department to understand the organizational politics, patterns of conflicts, and power dynamics and simply believes in whatever is stated by the leadership. Therefore, they might have higher perceptions of authenticity of their leadership.

Age, academic qualification, and gender significantly interacted to influence university teachers' psychological ownership and territoriality. Results suggested that women younger than 30 years of age have 16 years of education had the lowest mean score on psychological ownership. This is quite in line with our endemic gender roles. In Pakistan, teaching is deemed one of the most appropriate profession for women and they are usually allowed to undertake teaching jobs after their 16 years of education until some suitable match is found for them. Afterwards, her job and career is absolutely in the hands of her husband and the in-laws who usually get her terminated from her job. In a society where such practices are quite rampant, one cannot expect a young female university teacher having 16 years of education to own her job or university.

In case of territoriality, young male teachers having PhD degrees had the highest mean score. This pattern of results can again be discussed in terms of our gender roles. In our society, girls are generally taught to be polite, nurturing, and sharing. A good woman is the one who sacrifices her own rights in favor of her brother, her husband, and her sons. In contrasts, a good man is the one who is brave and take care of his family and his belongings. Throughout their lives, males have to play the role of safeguards for their families as well as their belongings from all sorts of threats. Thus, we engender territoriality behaviors in men. A young PhD male university teacher who is mentally and physically powerful enough should therefore defend his intellectual territory.

Three-way interaction among age, qualification, and job status and three-way interaction among faculty, job status, and experience had significant impact on psychological capital and job autonomy. In case of first significant interactive effect, young teachers having MPhil/MS degrees have highest mean score on psychological capital. For an individual interested in the profession of university teaching, MPhil/MS degree is a bridge between her/his masters and PhD. During this phase, s/he is more self-efficacious, optimistic, and resilient towards her/his goal. Therefore, young university teachers with MPhil/MS degrees were richest in psychological capital. Young regular PhD teachers demonstrated highest mean score on job autonomy perhaps on account of their job security and higher education levels whereas MPhil contractual teachers with more than 30 years of age demonstrated lowest mean score on the same perhaps because their job insecurity and more qualified colleagues.

The final significant three-way interaction was governed by gender, job status, and job experience in relation to psychological capital, authentic leadership, social support, in-role performance, and counterproductive work behaviors. The findings reveled that more experienced contractual female university teachers have highest mean score on psychological capital whereas their less experienced counterparts have lowest mean score on the same. Across many interactions of demographics, job

experience has demonstrated its positive relationship with psychological capital. Experienced female university teachers might have developed an optimistic attitude towards life and might have launched a resilient struggle for getting their job regular. In this struggle, they might have been working harder as compared to their male counterparts. Therefore, they are richer in psychological capital as compared to the other groups. This richness of psychological capital coupled with their hard work is also reflected in terms of their in-role performance since they had the highest mean score on measure of in-role performance. This line of reasoning is augmented by the structural model of in-role performance in the present study as well as in numerous other researches (Luthans & Avolio, 2009; Luthans, Avolio, Avey, & Norman, 2008; Luthans, Avolio, Walumbwa, & Li, 2005) where psychological capital demonstrated its positive influence on job performance. In case of authentic leadership, both experienced and less experienced contractual women university teachers have demonstrated lowest mean score on authentic leadership. This result might have been a reflection of gender discrimination in work settings. In our culture, women are still discriminated in terms of employment opportunities and even if they are employed, they usually do not enjoy that status of job, which their male counterparts with equivalent capabilities are enjoying. Thus, female university teachers serving on contract basis might have felt being discriminated, which led them develop low perceptions of authenticity of their leadership.

Experienced women university teachers serving on contract basis demonstrated highest mean score on social support whereas inexperienced regular men had lowest mean score on the same. Women are better at socialization and have superior interpersonal skills as compared to men because of which, they might have developed better working relationships with their colleagues and heads of departments. These working relationships might also help them in getting their job contract renewed.

Finally, less experienced women university teachers serving on contract basis scored the highest mean on counterproductive work behaviors, which was in sharp contrast with the experienced male university teachers working on regular status. One

of the pertinent explanation of these findings could be offered in terms of non-serious professional attitudes of less experienced women teachers on contractual job status. This non-serious professional attitude is spawned through our typical gender roles where women are allowed to undertake teaching jobs during the interval between the completion of their studies and their marriages. As soon as parents find some suitable match for their daughters, they get them married, after which their job status is at the disposal of their husbands and the in-laws. Usually, contractual job status is conceived as 'kachi naukri' involving high job insecurity and limited scope for career progression. Therefore, most of the women university teachers working on contractual status have to leave their jobs after marriage to fulfill the responsibilities of an oriental daughter-in-law. Thus young and inexperienced women university teachers are programmed by our society not to take their careers seriously, which might explain their high scores on counterproductive work behaviors. In contrast, job and career is of cardinal significance in a man's life since he is not only the breadwinner of his family but his job status is also one of the important indicators of socio-economic status of his family. Male university teachers who are working on regular basis might have been settled down in their professions after the successful completion of their probationary periods. Now they have identified with their occupation and seriously perusing it for their career development. Thus, they naturally constitute the group, which could not afford any counterproductive work behavior that might influence their careers negatively.

Conclusion

Overall, the discussion of findings of main study revealed significant contributions of the present study in the pertinent empirical literature. This research provides support for the applications of theory of planned behavior in work settings of university teachers and provided a comprehensive framework for integrating various constructs of positive organizational behavior into a meaningful coherent model. This study also offers a balanced perspective of positive organizational behavior in that it was not 'biased' towards the positive constructs like the preliminary studies in the field. The study of individual's vulnerability in terms of negative affectivity, job demands of quantitative role overload, and undesirable work behaviors such as counterproductive work behaviors and burnout in the paradigm of positive organizational behavior revealed that individual strengths such as psychological capital and positive dispositions such as positive affectivity coupled with job resources and authentic leadership not only lead to desirable work behaviors (such as in-role and extra role performance) but also enhances individuals' job related affective well-being. In addition, these positive resources may also buffer the negative outcomes of job demands. This study has integrated job demands-resources model into positive organizational behavior and offered a novel perspective through which psychological ownership and positive psychological capital can be conceived as personal resources, which can be developed and managed for grooming the faculty and enhancing the quality of research and teaching in university settings. Finally, the exploration of demographics in relation to major variables of the present study delineated an interesting panorama, which explained how interactions between certain demographic characteristics of university teachers such as their job experience, faculty, age, qualification, and gender may influence their sense of psychological ownership for their universities, their levels of engagement in their work, and their actual work behaviors such as performance, organizational citizenship behaviors, and counterproductive work behaviors.

Chapter V

GENERAL DISCUSSION

The present research was carried out in order to develop and validate a model of positive organizational behavior in university teachers of Pakistan. For this purpose, the first important step was an accurate measurement of various constructs that were to be studied in this research. Many constructs like positive psychological capital, psychological ownership, authentic leadership, and work engagement that have not been explored in Pakistani culture. Operationalizations of other constructs like affectivity, OCB, burnout, and job related affective wellbeing, which have been validated in Pakistan, also needed to be adapted to the occupational context of university teachers. Accordingly, the first study of this research was conducted in order to adapt various instruments in terms of Pakistani culture and according to the professional milieu of university teaching.

A series of focus groups discussion was undertaken in order to explore the dimensions of relatively new constructs in university teachers of Pakistan. The findings of these focus group discussions revealed that the operationalization of psychological capital, psychological ownership, authentic leadership, and work engagement did not involve any additional dimensions that might have been unique to the work context of Pakistani university teachers. It also revealed that various facets of these construct were quite adequate in tapping the breadth of their focal constructs.

The next phase of first study was the exploration of salient job resources and job demands in the profession of university teachers in Pakistan. Another series of focus group discussion was carried out with university teachers of various universities of the Punjab province to ascertain their perceptions of which job and organizational factors might facilitate their work, and what might have caused hindrance in their work. Analyses of data generated from these focus group discussions revealed that quantitative overload, work-family conflict, pupil’s misbehavior, and role ambiguity were most salient job demands whereas job autonomy, coworker support, supervisor support, and distributive justice were the most important job resources for Pakistani

university teachers. Thus, this research incorporated job autonomy and social support as pertinent job resources and quantitative overload as relevant job demands for university teachers of Pakistan.

The measurement instruments of all the constructs were administered on a small sample of university teachers and they were asked to mention their viewpoints about the comprehension, relevance, and readability of items. Analyses of teachers' feedback reveled that majority of the items were relevant to the measurement of their focal constructs, however, the figurative meanings of certain proverbs and phrasal verbs were not comprehended by them. The researcher then sought the expert opinion of various faculty members of National Institute of Psychology, Quaid-i-Azam University, Islamabad on the content validity of these instruments. All the experts agreed upon the content validity of the selected scales for the occupational group of university teachers.

The content validated scales were then adapted for Pakistani university teachers through a committee approach. The committee comprised of five faculty members of National Institute of Psychology, Quaid-i-Azam University, Islamabad. The committee suggested certain modifications in different items of various scales. Accordingly, the terms of company/organization were replaced with university. The agreement anchors of Organizational Citizenship Behavior Scale were transformed into frequency and certain proverbs were rephrased in plain English to improve the understanding of their contextual meanings.

These adapted instruments were then pilot tested on a sample of 100 university teachers in order to ascertain their psychometric properties. The results revealed that all the scales demonstrated satisfactory indices of reliability and their factorial structure was also confirmed in exploratory factor analyses. Furthermore, all of the relationships among the constructs of this study were in the hypothesized direction. Thus, study I ascertained that all the measurement protocols used in the present study were culturally relevant, occupationally pertinent to university teachers of Pakistan, and psychometrically sound.

After ensuring the psychometric soundness of measurement instruments, main study was undertaken with the purpose of testing the proposed models of various work attitudes and work behaviors. This study assumed that psychological ownership and work engagement would serially mediate between psychological capital and different work behaviors. More specifically it was hypothesized that psychological capital and perceived authentic leadership would inculcate feelings of promotive psychological ownership among university teachers. Consequently, faculty who own their universities on psychological level would be more engaged in their jobs. This work engagement on the part of university teachers would make them exhibit higher levels of organizational citizenship behavior, in-role performance, and job related affective wellbeing while decreasing their likelihood of being burnt out or being engaged in counterproductive work behaviors.

Separate models were developed and tested for each of the work behaviors (organizational citizenship behavior, in-role performance, and job related affective wellbeing burn out, and counterproductive work behaviors) and in each of the model, the serial mediation of psychological ownership and work engagement between psychological capital and the aforementioned work behaviors was significant. Alternate models, which assumed psychological ownership and work engagement as parallel mediators between psychological capital and work behaviors, were also tested for each of the work behaviors. Chi square difference tests revealed that across all the models, serial mediation models had a better fit to the data as compared to the parallel mediation models. The superiority of serial mediation models provided an empirical support for theoretical framework of this study. Psychological capital is a personal capability that leads to the development of an attitude of ownership among university teachers, which in turn should be a proximal predictor of behavioral intentions rather than the actual behavior as per theory of planned behavior (Ajzen, 1991). Work engagement is a construct, which might be equated with work intentions, and these work intentions are transformed into certain work behaviors like in-role performance and organizational citizenship behavior. Thus the actual in-role and extra role job performance of university teachers and the associated affective outcomes like job related affective wellbeing and burn out is a function of their personal resource of

psychological capital which might lead to an attitude of ownership that finally turns into the behavioral intentions of work engagement.

The predictive power of theory of planned behavior lies in the fact that it specifies that attitudes are likely to be transformed into behavioral intentions and then into the actual behaviors when individuals have high levels of behavioral control and subjective norm. The present study has focused upon job autonomy and social support as pertinent job resources and quantitative overload as relevant job demand among university teachers of Pakistan. Job autonomy and quantitative overload might represent the extent to which university teachers have control over their jobs whereas social support might have been an indication of their subjective norm that support from the heads of their departments and their colleagues would be available in case of any difficulty or professional issues. Thus, university teachers who have higher levels of job latitude and social support and low levels of quantitative overload are likely to be the engaged faculty with optimal in-role and extra role job performance and findings of the present study point in the same direction.

The present research is an empirical attempt at integrating the Job-Demands Recourses (J-DR) model within the framework of positive organizational behavior. The findings of this study are quite in line with the predictions of job demands-resources model as job resources did facilitate work engagement and the subsequent work behaviors of organizational citizenship behavior, in-role performance and the affective state of job related wellbeing. These job resources also acted as cushions against the negative affective state of burn out. More specifically, social support moderated between work engagement and in-role performance; between authentic leadership and work engagement; between authentic leadership and OCB; and between work engagement and job related affective wellbeing. Job autonomy, on the other hand, moderated between authentic leadership and OCB; between psychological ownership and job related affective wellbeing; and between work engagement and burnout.

Consistent with the theoretical postulates of JD-R model, quantitative overload appeared to be taxing for university teachers and led to certain negative work related outcomes. For instance, higher levels of quantitative overload weekend the positive relationship between psychological capital and psychological ownership. However, personal resource of psychological capital buffered the negative impact of quantitative overload on in-role performance. Similarly, university teachers who perceive their leadership as authentic were less likely to be burnt out because of high quantitative overload.

The present study also developed and tested an exclusive model of psychological ownership in the context of J-DR model. To the best of researcher's knowledge, this is the first study that has explored the relationship of promotive and preventative psychological ownership in the context of J-DR model. It was found that promotive psychological ownership was positively related to work engagement whereas the preventative psychological ownership was positively associated with burnout and negatively associated with work engagement. Job resources mediated between promotive psychological ownership and work engagement whereas job demands mediated between preventative psychological ownership and burnout. Thus, university teachers who are high on preventative psychological ownership are at increased risk of burnout in case of high job demands whereas job resources may mitigate burnout for university teachers who are high on promotive psychological ownership.

Conclusion

The present study was an empirical attempt at developing and testing a model of positive organizational behavior for university teachers of Pakistan. Various constructs of positive organizational behavior like psychological capital, authentic leadership, psychological ownership, and work engagement were theoretically integrated into a single model and their influence on various work behaviors and related affective outcomes was examined. This theoretical model was based in the context of theory of planned behavior. Consistent with the hypotheses, psychological

ownership, and work engagement serially mediated the relationship of psychological capital with various work behaviors (in-role and extra role performance, counterproductive work behaviors) and the associated affective states (job related affective wellbeing and burnout). This study also integrated J-DR model into the framework of positive organizational behavior by conceptualizing psychological capital as a personal resource and identified job autonomy and social support as important job resources and quantitative overload as a significant job demand for university teachers of Pakistan. The findings were consistent with the predictions of J-DR model, as job resources not only facilitated work engagement and subsequent desirable work outcomes but also reduced the chances of detrimental work behaviors. Job demands, on the other hand, did lead to burnout and counterproductive work behaviors. Finally, promotive psychological ownership and preventative psychological ownership were found to be quite distinct types of psychological ownership with different mechanisms leadings towards work engagement and burnout respectively.

Implications of the Present Study

This is the first study in Pakistan that has explored the role of various important constructs of positive organizational behavior in determining salient work outcomes among university teachers. Being an exploratory study both in terms of the population being studied and the integration of positive organizational behavior and JD-R model, this research has spawned certain important implications that can be capitalized upon for more efficient human resource development and management in institution of higher education in Pakistan. Therefore, this section is couched to present a concise review of salient implications of the present study.

This study has elaborated the pragmatic approach of positive organizational behavior in university settings of Pakistan. The findings suggested that positive psychological capital and authentic leadership do not only create conditions conducive to positive work outcomes like organizational citizenship behavior and in-role performance but also significantly curtails the likelihood of university teachers of

getting engaged in counterproductive work behaviors or being burnt out. Results also suggested that university teachers rich in psychological capital are more likely to be the engaged and motivated educators in imparting their skills and knowledge to their apprentices. Therefore, psychological capital should be cultivated among the faculty members of universities of Pakistan so that our institutes of higher education may entail enthusiastic, engaged, and dedicated faculty that may transcend the traditional role of teaching and emerge as true mentors.

Given the findings of the present study, which demonstrated psychological capital as significant predictor of salient work attitudes and behaviors, routine faculty development programs in our universities must evolve some modules of training aimed at cultivation of psychological capital among university teachers. Owing to the malleable trait-like nature of psychological capital, interventions programs are available which help enrich our faculty members in psychological capital. For instance, Luthans et al. (2006) and Luthans et al. (2008) demonstrated that training programs for developing psychological capital are quite successful not only in terms of enhanced psychological capital but also in terms of organizational output.

Results of the present research pertaining to psychological ownership also entail very important implications for higher education sector of Pakistan. Promotive psychological ownership turned out to be the mediator between psychological capital and work engagement and mediated between psychological capital and various work behaviors like organizational citizenship behavior, in-role performance, counterproductive work behaviors, and burnout. Such important role of psychological ownership dictates that work environment of our universities should be conducive to the development of ownership feelings among university teachers. A work environment where organizational justice prevails and job resources are adequate is likely to incubate feelings of ownership. It is, therefore, very imperative that promotional policies of university faculty, their research grants, and other fringe benefits must be based upon merit.

Furthermore, university teachers must be equipped with all the necessary resources like appropriate physical space for their offices, computer facilities, appropriate and up-to-date labs, access to international knowledge databases and so on. The jobs of our university teachers should also be designed in such a way as to incorporate greater elements of job autonomy, task significance, and constructive feedback with a manageable workload. They should have greater levels of involvement in decision making pertaining to university policies. When these conditions are met, we are going to have teams of scholars who would be serving their universities because they own them to the extent that every achievement of their university would reflect upon their own success and glory.

Findings of this research have also highlighted those university teachers who are rich in psychological capital and own their universities are more likely to have higher levels of work engagement. Work engagement has been one of the central constructs of JD-R model and an enormous amount of literature provides empirical support that engaged employees are very efficacious and efficient members of their organizations. Results of this study also pointed in the same direction as work engagement turned out to be a significant predictor of various work behaviors like organizational citizenship behavior, in-role performance, counterproductive work behaviors, and burnout. Thus, a very pragmatic insinuation derived from this study suggests that management of our universities should ensure that their faculty is whole-heartedly engaged in their teaching and research.

The JD-R model specifies the ways and means of fostering of work engagement in university teachers. According to this model, we have to equip our university teachers with personal resources like those of hope, optimism, resilience, and self-efficacy and provide them with a work environment replete with physical job resources like appropriate and well-furnished physical workspace, computers, labs, access to knowledge databases etc. and psychological resources of autonomy, social support, and organizational justice. These predictions of JD-R model were augmented by the results of this study, which demonstrated that personal resources of psychological capital led to work engagement, which in turn led to desirable work behaviors only in

the presence of job resources of job autonomy and social support. Quite in line with the tenets of JD-R model, it was also observed that job demands of quantitative overload led to burnout and undermined in-role performance whereas job resources of autonomy and social support buffered the negative impact of straining job demands.

A university teacher in Pakistan is overburdened, as s/he has to manage multiple tasks on her/his job which typically include teaching, students' evaluation and examinations, administrative assignments, research projects, theses supervision, research publications, professional conferences and seminars, and acquisition of new skills to keep pace with the advancements in their respective fields. It, therefore, logically follows that management of universities can nurture work engagement among their faculty members by establishing a work environment supplied with adequate amount of physical and psychological job resources along with manageable job demands. This could be achieved if workload of university teachers should not exceed their working capabilities and procedural justice, autonomy, support, and adequate physical infrastructure constitute organizational culture of our universities. University teachers should be encouraged to *craft* their job according to their unique capabilities so that they can bring about their best in meeting with their job demands.

A final implication of the present research pertains to recruitment/selection process of our university teachers. The present research incorporated positive and negative affectivity as control variables to test the additive value of relatively new constructs of positive organizational behavior. Results of this research elucidated very significant role of personal dispositions as positive and negative affectivity demonstrated a peculiar pattern of relationship with work attitudes and behaviors. More specifically, negative affectivity was positively related to counterproductive work behaviors, burnout and inversely related to in-role performance whereas positive affectivity had a direct relationship with psychological ownership, OCB, job related affective wellbeing, and work engagement.

This pattern of relationship suggests that affectivity is an important personal disposition, which can reliably predict one's future job success or failure. This implies

that affectivity must be assessed as an important individual difference variable while recruiting teachers in universities. A candidate for university teaching who is high on negative affectivity is much more prone to burn out corollary to her/his ongoing contact with students and other colleagues. On the other hand, a potential university teacher high on positive affectivity and low on negative affectivity is much more likely to be engaged in her/his work but and go extra miles in serving her/his university in terms of organizational citizenship behavior.

To summarize the implications of the present study, it can be inferred that psychological capital is an important construct in work settings of university teachers that can be a powerful personal resource leading her/him to be engaged, dedicated, and committed mentor. Therefore, university management should focus upon training of their faculty that might enrich them in psychological capital. Management of universities should remain committed to their vision and true to their values of ethical excellence to assure an authentic leadership. Such leadership is capable of spawning a work environment that is supplied with adequate amount of physical and psychological resources where university teachers might develop feelings of ownership for their university, which in turn might enable them to be engaged more devotedly to teaching and research. Such devoted faculty would surely go beyond their prescribed roles of research and teaching and may embark on mentoring their protégés transmogrifying them into world's leaders in knowledge.

Limitations of the Present Study

Like any scientific endeavor, the present study has certain limitations. Therefore, any interpretation of results of this research should be made while considering these limitations.

1. Full time university teachers of Pakistan constituted the population of the present study from which majority of the participants belonged to public sector universities of the Punjab province and the rest belonged to universities of KPK province. Although this study has explored certain constructs of

positive organizational behavior in work settings and their impact on certain work behaviors, yet the profession of university teaching is quite different from other occupational categories. Therefore, the generalization of findings of this research beyond the population of Pakistani university teachers should be made with caution.

2. The sample of the present study largely comprised of public sector universities of the Punjab and KPK provinces. Universities of Sindh and Baluchistan provinces might have quite different organizational climate. Furthermore, private sector universities also differ from public sector universities in many aspects like faculty, physical infrastructure, syllabus, students, and organizational culture to name a few. Therefore, findings of this research may not delineate the correct relationships among the constructs in case of these universities.
3. The majority of the participants were lecturers or assistant professors. Associate and full professors were minimally represented in the sample of the present study. The findings of this research might have been different if data were collected from senior faculty members.
4. The data were collected through self-report measures, which inherit the danger of common method variance because of which the relationship among various constructs of the study might have been inflated (Semmer, Grebner, & Elfering, 2004). Albeit this threat, constructs of psychological capital, affectivity, psychological ownership, and burnout could best be operationalized through self-report measures. A scrutiny of correlation matrix of the present study revealed that none of the correlations was aberrantly high which is quite in line with Spector's (2006) observation who demonstrated that the impact of common method variance is not as high as could be expected. He further noted that using self-report measurement does not assure finding the significant results, even with quite large samples.
5. Another important aspect of self-report measurement pertains to social desirability effect whereby respondents may try to manage their impression by responding in a socially desirable manner. In the present research, this social desirability effect was quite pronounced in case of counterproductive work

behaviors whose distribution was positively skewed and the range of responses was quite restricted to the lower end. However, the distributions of all other variables were symmetrical and there was no evidence of range restriction in terms of the responses of the participants.

6. The cross-sectional design of the present research does not allow the causal inferences about the relationships among various predictors and the outcomes. It is quite possible that there had been a reciprocal relationship between psychological ownership and work engagement. For instance, contrary to the hypothesized model of the present study, work engagement may spawn feelings of ownership among university teachers.
7. In survey research, there are no ways and means to control extraneous and confounding variables, which constituted yet another limitation of the present study. This is especially relevant in case of burnout because the investigator cannot regulate the atmosphere in which the university teachers were employed or the additional work/ family conflict that they could be exposed to and that could likely “spill over” into their work life. The culture of each of the university sampled in the present study might have been quite different from other institutes of higher education and the researcher could not equate or stabilize the so-called organizational variables (e.g., organizational culture, organizational climate, person-organization fit). The potential influence of situational and temporal variables (for instance, financial insecurity, unstable home and familial relationships, personality traits, job insecurity) to which the participants were exposed at the time of assessment and their unique personal dispositions could also have influenced the results of this study.

Suggestions for Future Research

1. The external validity of the models proposed in the present research can be ascertained if future research on these constructs incorporates a more representative national sample of university teachers including both public and private sector universities across all the provinces of the country. Furthermore,

faculty members of both gender and all designations should be proportionately recruited in the sample.

2. The present study has explored quantitative overload, job autonomy, and social support as pertinent job demands and job resources for university teachers of Pakistan. The qualitative part of the present study suggested that besides these variables work-family conflict, pupil's misbehavior, and role conflict were important job demands whereas organizational justice and organizational support were important job resources for university faculty. Future research should develop JD-R model based upon these job demands and job resources and explore how these job demands and job resources may influence the relationship among various constructs of positive organizational behavior and work outcomes.
3. A heterogeneous, probability sample should be selected for future research, so that findings of the present research can be validated across various occupational groups. This would also be helpful in exploring how different job demands of various professions may influence the relationships among various constructs that have been studies in the present research.
4. For a heterogeneous sample, the future research should also try to find out important job resources and job demands, which may be specific to various occupations. For instance, job autonomy is an important job resource for a university teacher, but the same might not hold true in case of a lower level production job.
5. Future research should incorporate longitudinal research design so that causal inferences about the relationships among various variables of interest can be ascertained.
6. Future studies should operationalize various constructs on multiple levels. For instance, organizational citizenship behavior, counterproductive work behaviors, and in-role performance must also be supervisor rated.
7. Future studies should explore various constructs of positive organizational behavior at their facet level. It is quite possible that various facets of different constructs are inter related in different fashion than their corresponding core

constructs. This would help explain the fine dynamics of relationships among several constructs being studied.

8. The present study could not explore the impact of organizational culture upon the dynamics of the relationship among constructs of positive organizational behavior and various work outcomes. Since each organization has its own unique organizational culture, its potential influence on work attitudes and work behaviors is undeniable. Future research should focus upon the role of organizational culture in fostering or curtailing psychological capital, psychological ownership, authentic leadership, and work engagement.
9. Although the present research has explored the relationship of psychological capital, psychological ownership, and work engagement with certain important work outcomes like organizational citizenship behavior, in-role performance, counterproductive work behaviors, affective wellbeing, and burnout, certain other important work outcomes need to be studied in relation to positive organizational behavior. These work outcomes might include turnover, occupational stress, and absenteeism to name a few. Future research should be devoted at discerning the relationship between various constructs of positive organizational behavior and these work-related outcomes beyond what has already been affirmed, in different work contexts and environments, on different samples, and across cultures.
10. Majority of the studies in the field of positive organizational behavior has focused upon the consequences of various positive constructs in organizational settings. Little is known about the origin of these positive psychological capacities. Future research should focus upon the antecedents of psychological capital, authentic leadership, and psychological ownership. This line of empirical inquiry is especially needed in view of the malleable nature of these positive constructs since they have never been conceived as personal traits in modern literature on positive organizational behavior. The comprehensive understanding of these constructs is only possible when various personal, organizational, and social factors have been investigated which spawn these positive constructs.

Appendix A

Focus Group Discussion Guide For Exploration of Positive Constructs

Consent Process

- The information you give us is completely confidential, and we will not associate your name with anything you say in the focus group.
- We would like to tape the focus groups so that we can make sure to capture the thoughts, opinions, and ideas we hear from the group. No names will be attached to the focus groups and the tapes will be destroyed as soon as they are transcribed.
- You may refuse to answer any question or withdraw from the study at any time.
- We understand how important it is that this information is kept private and confidential. We will ask participants to respect each other's confidentiality.
- If you have any questions now or afterwards, you can always contact me at livespirit786@yahoo.com, or you can call at +923216036747.
- Please check the boxes below and put your signature to show you agree to participate in this focus group.
    - o I have understood the purpose of this group discussion and I am willing to participate in it.

      Signature_____

1. Welcome — I want to thank you for coming today. My name is Adnan Adil and I will be the facilitator for today's group discussion. I am a PhD scholar at National Institute of Psychology, Quaid-i-Azam University, Islamabad and my doctoral researcher seeks to explore how positive psychological capital influences work attitudes, intention, and behaviors of university teachers. We invited you to take part in this group discussion today because you are all teachers of psychology at your university. I would introduce some personal attributes like positive psychological capital, psychological ownership; and characteristics of authentic leadership and would like to hear your opinion about how these constructs prevails among university teachers of Pakistan. What we learn from today's discussion will help us better understand these personal attributes and leadership characteristics in relation to enhanced performance in our job roles.
2. Ground Rules — Before we begin, I would like to review a few ground rules for the discussion.
    a. I am going to ask you several questions; we do not have to go in any particular order but we do want everyone to take part in the discussion. We ask that only one person speak at a time.
    b. Feel free to treat this as a discussion and respond to what others are saying, whether you agree or disagree. We are interested in your opinions and whatever you have to say is fine with us. There are no right or wrong answers. We are just asking for your opinions based on your own personal experience. We are here to learn from you.
    c. Do not worry about having a different opinion than someone else. However, please do respect each other's answers or opinions.
    d. If there is a particular question you do not want to answer, you do not have to.
    e. We will treat your answers as confidential. We are not going to ask for anything that could identify you and we are only going to use first names during the discussion. We also ask that each of you respect the privacy of everyone in the room and not share or repeat what is said here in any way that could identify anyone in this room.
    f. We are tape recording the discussion today and taking notes because we do not want to miss any of your comments. However, once we start the tape recorder we will not use anyone's full name and we ask that you do the same. Is everyone OK with this session being tape-recorded? (Seek Verbal Consent for tape

recording)

g. We will not include your names or any other information that could identify you in any reports we write. We will destroy the notes and audiotapes after we complete our study and publish the results.
h. Finally, this discussion is going to take about two hours and we ask that you stay for the entire meeting. At the end of the discussion, refreshment will be served.

Does anyone have any questions before we start?

3. Introduction (5 Minutes)

[START TAPE RECORDER NOW.]

I would like to go around the table starting on my right and have each person introduce him or herself. Please tell us your first name only, your official designation, and your department.

4. Group Discussion -Topic 1 (25 Minutes)

Topic 1: Positive Psychological Capital

Definition: Positive Psychological Capital (PsyCap) refers to an individual's positive psychological state of development that is constituted by: (i) confidence (self-efficacy) of taking on and putting in the required exertion for the successful accomplishment of challenging tasks; (ii) investing consistent efforts toward goals and, when required, devising alternative paths to goals (hope) for their successful accomplishment; (iii) making a positive attribution (optimism) about present and future success; and (iv) when confronted with issues and hardships, sustaining and bouncing back and even beyond (resiliency) to accomplish success (Luthans, Youssef, & Avolio, 2007).

Inclusion Criteria: The attributes that can be included in positive psychological capital must have sound theoretical background and valid measurement tools. In addition, they must be positive in nature, open to development (state-like in nature), and have demonstrated impact on organizational performance.

1. Do you think that self-efficacy, hope, optimism, and resilience meet the inclusion criteria of positive psychological capital?
2. What other attribute(s) meeting the inclusion criteria can be included in positive psychological capital?
   a. PROBE: Can you cite some psychometrically sound measurement instrument(s) for this attribute?
   b. PROBE: How does a university can develop this attribute in her faculty?
   c. PROBE: How would this attribute help enhance the research and teaching quality of university teachers?

5. Group Discussion -Topic 2 (25 Minutes)

Topic 2: Authentic Leadership

Definition: Authentic leadership refers to a repertoire of leader behavior that not only inculcates but also support both positive ethical climate and positive psychological capacities, which results in positive self-development when leaders promote greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency among their followers.

1. How would you describes an authentic and genuine person?
2. What specific behaviors would you identify in an honest and genuine head of department (HOD)/chairperson?
    a. PROBE: How these behaviors can lead you and your colleagues to positive self-development?
3. If you were to perceive that, your head of department (HOD)/chairperson is committed to highest standards of moral values, what qualities/behaviors you are likely to identify in his/her conduct with the followers?
    a. PROBE: How can these behaviors create a just, fair, and supportive working environment?
    b. PROBE: How can these qualities of your HOD foster hope, efficacy, optimism, and resilience, and other positive attributes in you and your colleagues?

6. Group Discussion -Topic 3 (25 Minutes)

Topic 3: Psychological Ownership

Definition: It refers to a psychological phenomenon whereby an individual evolves possessive feelings towards the target than can be both tangible (material) and intangible (immaterial). For instance, you may have developed possessive feelings towards your office table or the novel idea you are perusing in your current research project.

1. How do you feel about target of your ownership (be it your car, your office, or some psychometric scale that you are developing)?
2. Do you think that you regulate or have a control of target of your possession?
    a. PROBE: What do you do in maintaining your target of ownership?
    b. PROBE: How do you utilize your target of ownership?
3. Do you personally identify with target of your possession?
    a. PROBE: Do you feel upset when your target of ownership is looked down upon?
    b. PROBE: Do you feel pride when your target of ownership is appreciated?
4. Do you hold yourself accountable for what happens to the target of your ownership?

a. PROBE: Perhaps you could have prevented something bad that happened to your target.
b. PROBE: Your target of ownership is applauded because it belonged to you.

5. Should one share one's targets of ownership with others?
   a. PROBE: Would you like to share your office table with some colleague?
   b. PROBE: Would you like to share your creative research ideas with others so that they may develop their own research proposal?

7. Group Discussion -Topic 4 (25 Minutes)

Topic 4: Work Engagement

Definition: Work engagement is a positive, fulfilling, work-related state of mind that is relatively stable and is characterized by being passionate and dedicated about one's work to the extent that one gets absorbed in one's work.

1. Which features of your work gets you immersed in it?
2. Have you ever gone through some task(s) during which time flees and you were so absorbed in it that you could hardly notice how much time had passed?
   a. PROBE: How did you feel about that task?
   b. PROBE: Why you could not notice how much time was elapsed?
   c. PROBE: When you have strong interest in some task, how would you peruse that?

8. Final Thoughts (05 Minutes)

Those were all of the questions that I wanted to ask. Does anyone have any final thoughts about the constructs we have discussed that they have not gotten to share yet?

9. Review and Wrap-up (05 Minutes)

That concludes our focus group. Thank you so much for coming and sharing your thoughts and opinions with us. We hope you enjoyed the discussion today. Refreshment is awaiting for you!

Materials and supplies for focus groups

- Consent forms
- Name tents
- Pads & Pencils for each participant
- Focus Group Discussion Guide for Facilitator
- 1 recording device
- Batteries for recording device
- Extra tapes for recording device
- Permanent marker for marking tapes with FGD name, facility, and date
- Notebook for note-taking
- Refreshments

Appendix B

Focus Group Discussion Guide for Job Demands and Resources

1. Welcome — I want to thank you for coming today. My name is Adnan Adil and I will be the facilitator for today's group discussion. I am a PhD scholar at National Institute of Psychology, Quaid-i-Azam University, Islamabad and my doctoral researcher seeks to explore how positive psychological capital influences work attitudes, intention, and behaviors of university teachers. We invited you to take part in this group discussion today because you are all teachers at university level. The purpose of this group discussion is to learn various demanding aspects of a university teacher's job that impede his/her job performance and may result in psychological and/or physiological strain for him/her. We would also try to explore different features of a university teacher's job that may help him/her meet his/her job demands, may lessen the psychological or physical strains associated with job demands, and lead him/her to personal development and growth.
2. Ground Rules — Before we begin, I would like to review a few ground rules for the discussion.
    a. I am going to ask you several questions; we do not have to go in any particular order but we do want everyone to take part in the discussion. We ask that only one person speak at a time.
    b. Feel free to treat this as a discussion and respond to what others are saying, whether you agree or disagree. We are interested in your opinions and whatever you have to say is fine with us. There are no right or wrong answers. We are just asking for your opinions based on your own personal experience. We are here to learn from you.
    c. Do not worry about having a different opinion than someone else. However, please do respect each other's answers or opinions.
    d. If there is a particular question you do not want to answer, you do not have to.
    e. We will treat your answers as confidential. We are not going to ask for anything that could identify you and we are only going to use first names during the discussion. We also ask that each of you respect the privacy of everyone in the room and not share or repeat what is said here in any way that could identify anyone in this room.
    f. We are tape recording the discussion today and taking notes because we do not want to miss any of your comments. However, once we start the tape recorder we will not use anyone's full name and we ask that you do the same. Is everyone OK with this session being tape-recorded? (Seek

Verbal Consent for tape recording)

g. We will not include your names or any other information that could identify you in any reports we write. We will destroy the notes and audiotapes after we complete our study and publish the results.
h. Finally, this discussion is going to take about one and a half hour and we ask that you stay for the entire meeting. At the end of the discussion, refreshment will be served.

Does anyone have any questions before we start?

3. Introduction (5 Minutes)

[START TAPE RECORDER NOW.]

I would like to go around the table starting on my right and have each person introduce him or herself. Please tell us your first name only, your official designation, and your department.

4. Group Discussion -Topic 1 (35 Minutes)

Topic 1: Job Demands

Definition: Physical, social, psychological, or organizational aspects of the job that require sustained physical and/or psychological (cognitive or emotional) efforts and are therefore associated with certain physiological and/or psychological costs.

3. What are important social aspects of your job that require your sustained effort, which may result in strain for you?
4. Which physical aspects of your job require your sustained effort that may lead you to stress?
5. How policies of university management require you to invest persistent efforts that may result in strain for you?
6. Which organizational factors make your job more demanding, tough, and stressful?
7. Can you tell us about some psychological aspects of your job that make it taxing?
   a. PROBE: How do these aspects of your job influence your performance?
   b. PROBE: Why do these aspects of your job may result in stress, tension, and other negative states of mind?
   c. PROBE: What should be done for minimizing job demands of a university teacher?
8. What aspect(s) of your job is the most annoying one for you?
   a. PROBE: How does it interfere with your job performance?
   b. PROBE: Psychologically and/or physically, this aspect of your job leads to……

5. Group Discussion -Topic 2 (35 Minutes)

Topic 2: Job Resources

Definition: Physical, psychological, social, or organizational aspects of the job that may (a) reduce the job demands and the related psychological and physiological costs, (b) are functional in achieving work goals, and (c) stimulate personal growth,

learning, and development.

4. What physical aspects of your job may reduce the negative impacts of your job demands?
5. Which organizational factor may lessen the negative influences of your job demands?
6. What are the social and psychological aspects of your job that may buffer the negative impacts of job demands of a university teacher?
    a. PROBE: How do these aspects of your job lessen the stress and fatigue associated with your job?
    b. PROBE: How do these dimensions of your job facilitate you in your job performance?
    c. How do these aspects of your job yields opportunities for your personal growth and development?
7. What aspect(s) of your job do you like the most?
    a. PROBE: How does this aspect(s) of your job facilitate you in performing your job?
    b. PROBE: How does this aspect(s) of your job reduce the negative consequences of your job demands?
    c. PROBE: This aspect(s) of your job offers you what opportunities of personal growth, learning, and development?
8. If you were the vice chancellor of your university, what aspect(s) of your faculty's job you would concentrate upon for reducing their job demands and enhancing their job resources?

6. Final Thoughts (05 Minutes)	Those were all of the questions that I wanted to ask. Does anyone have any final thoughts about the demanding and facilitating aspects of our jobs we have discussed that they have not gotten to share yet?
7. Review and Wrap-up (05 Minutes)	That concludes our focus group. Thank you so much for coming and sharing your thoughts and opinions with us. We hope you enjoyed the discussion today. Refreshment is awaiting for you!

Materials and supplies for focus groups

- Consent forms
- Name tents
- Pads & Pencils for each participant
- Focus Group Discussion Guide for Facilitator
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- Extra tapes for recording device
- Permanent marker for marking tapes with FGD name, facility, and date
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- Refreshments

Appendix C

PsyCap Questionnaire (PCQ)

Sr. No.	Below are statements that describe how you may think about yourself right now. Please circle one number for each statement that best reflects your opinion about yourself.	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	I feel confident analyzing a long-term problem to find a solution.	1	2	3	4	5	6
2	I feel confident in representing my work area in meetings with management.	1	2	3	4	5	6
3	I feel confident contributing to discussions about the university's strategy.	1	2	3	4	5	6
4	I feel confident helping to set targets/goals in my work area.	1	2	3	4	5	6
5	I feel confident contacting people outside the university (e.g., old students, parents of students, teachers from other universities, officials from HEC) to discuss problems.	1	2	3	4	5	6
6	I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
7	If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5	6
8	At the present time, I am energetically pursuing my work goals.	1	2	3	4	5	6
9	There are lots of ways around any problem.	1	2	3	4	5	6
10	Right now, I see myself as being pretty successful at work.	1	2	3	4	5	6
11	I can think of many ways to reach my current work goals.	1	2	3	4	5	6
12	At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
13	After facing a **failure** in the work setting, **it is difficult for me** to overcome it and continue my work.	1	2	3	4	5	6
14	I usually manage difficulties one way or another at work.	1	2	3	4	5	6
15	If required so, I can do my work on my own.	1	2	3	4	5	6
16	I usually handle stressful thing at work without getting upset.	1	2	3	4	5	6
17	I can get through difficult times at work	1	2	3	4	5	6

	because I have experienced difficulty before.						
18	I feel I can handle many things at a time at this job.	1	2	3	4	5	6
19	When things are uncertain for me at work, I usually expect the best.	1	2	3	4	5	6
20	I **cannot manage** if something related to my work goes wrong.	1	2	3	4	5	6
21	I always look on the bright side of things regarding my job.	1	2	3	4	5	6
22	I am optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6
23	In this job, things **never** turn out according to my expectations.	1	2	3	4	5	6
24	I approach this job with a ray of optimism in my mind.	1	2	3	4	5	6

Appendix D

Positive and Negative Affect Schedule

Sr. No.	The following scale consists of a number of words that describe different feelings and emotions. Please check one response for each item that best indicates how you feel on average.	Very Slightly or not at all	A little	Moderately	Quite a bit	Extremely
1	Interested	1	2	3	4	5
2	Distressed	1	2	3	4	5
3	Excited	1	2	3	4	5
4	Upset	1	2	3	4	5
5	Strong	1	2	3	4	5
6	Guilty	1	2	3	4	5
7	Scared	1	2	3	4	5
8	Hostile	1	2	3	4	5
9	Enthusiastic	1	2	3	4	5
10	Proud	1	2	3	4	5
11	Irritable	1	2	3	4	5
12	Alert	1	2	3	4	5
13	Ashamed	1	2	3	4	5
14	Inspired	1	2	3	4	5
15	Nervous	1	2	3	4	5
16	Determined	1	2	3	4	5
17	Attentive	1	2	3	4	5
18	Tense	1	2	3	4	5
19	Active	1	2	3	4	5
20	Afraid	1	2	3	4	5

Appendix E

Authentic Leadership Questionnaire (ALQ)

The following survey items refer to the leadership style of your chairperson/incharge, head of department, as you perceive it. Judge how frequently each statement fits his or her leadership style using the following scale:

(0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, 4 = frequently, if not always)

My Chairman/Incharge/Head of Department:

Sr. No.	Statements	Not at All	Once in a While	Sometimes	Fairly Often	Frequently, if Not Always
1	Says exactly what he or she means.	0	1	2	3	4
2	Admits mistakes when they are made.	0	1	2	3	4
3	Encourages everyone to speak their mind.	0	1	2	3	4
4	Tells me the hard truth.	0	1	2	3	4
5	Displays emotions exactly in line with feelings.	0	1	2	3	4
6	Demonstrates beliefs that are consistent with actions.	0	1	2	3	4
7	Makes decisions based on his or her core values.	0	1	2	3	4
8	Asks me to take positions that support my core values.	0	1	2	3	4
9	Makes difficult decisions based on high standards of ethical conduct.	0	1	2	3	4
10	Solicits (asks for) views that challenge his or her deeply held positions.	0	1	2	3	4
11	Analyzes relevant data before coming to a decision.	0	1	2	3	4
12	Listens carefully to different points of view before coming to conclusions.	0	1	2	3	4
13	Seeks feedback to improve interactions with others.	0	1	2	3	4
14	Accurately describes how others view his or her capabilities.	0	1	2	3	4
15	Knows when it is time to reevaluate his or her positions on important issues.	0	1	2	3	4
16	Shows he or she understands how specific actions impact others.	0	1	2	3	4

Appendix F

Psychological Ownership Questionnaire (POQ)

Sr. No.	Below are statements that describe how you may think about yourself right now. Use the given scales to indicate your level of agreement or disagreement with each statement.	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	I feel I need to protect my ideas from being used by others in my university.	1	2	3	4	5	6
2	I feel that people I work with in my department/university should not invade my workspace.	1	2	3	4	5	6
3	I feel I need to protect my property (belongings) from being used by others in this department/university.	1	2	3	4	5	6
4	I feel I have to tell people in my department/university to 'back off' from projects that are mine.	1	2	3	4	5	6
5	I am confident in my ability to contribute to my university's success.	1	2	3	4	5	6
6	I am confident I can make a positive difference in this university.	1	2	3	4	5	6
7	I am confident setting high performance goals in my university.	1	2	3	4	5	6
8	I would challenge anyone in my university if I thought something was done wrong.	1	2	3	4	5	6
9	I would not hesitate to tell my university if I saw something that was done wrong.	1	2	3	4	5	6
10	I would challenge the direction of my university to assure it is correct.	1	2	3	4	5	6
11	I feel I belong in this university.	1	2	3	4	5	6
12	This place is home for me.	1	2	3	4	5	6
13	I am totally comfortable being in this university.	1	2	3	4	5	6
14	I feel this university's success is my success.	1	2	3	4	5	6
15	I feel being a member in this university helps define who I am.	1	2	3	4	5	6
16	I feel the need to defend my university when it is criticized.	1	2	3	4	5	6

Appendix G

Quantitative Role Overload Scale

Sr. No.	The following statements are about your job. Please circle the number in the appropriate box that best reflects your feelings with respect to your job.	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	I often have to arrive early or stay late to get my work done.	1	2	3	4	5	6
2	I often have to work through my breaks to complete my assigned workload.	1	2	3	4	5	6
3	I often seem like I have too much work for one person to do.	1	2	3	4	5	6
4	I sometimes have to take work home with me to complete my assigned workload.	1	2	3	4	5	6
5	I am given enough time to do what is expected of me on my job.	1	2	3	4	5	6
6	I have too much work to be able to do it properly.	1	2	3	4	5	6

Appendix H

Job Autonomy Scale

Sr. No.	The following statements are about your job. Please circle the number in the appropriate box that best reflects your feelings with respect to your job.	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	My job allows me to make a lot of decisions on my own.	1	2	3	4	5	6
2	On my job, I have freedom to decide how I do my work.	1	2	3	4	5	6
3	I enjoy a lot of autonomy regarding what happens at my job.	1	2	3	4	5	6

Appendix I

Social Support (Coworker and Supervisor Support) Scale

Sr. No.	The following statements are about your colleagues/coworkers and your supervisor/boss. Please circle the number in the box that best reflects your opinion about your colleagues and supervisors.	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	People I work with are competent in doing their jobs.	1	2	3	4	5	6
2	People I work with take a personal interest in me.	1	2	3	4	5	6
3	People I work with are friendly.	1	2	3	4	5	6
4	People I work with are helpful in getting the job done.	1	2	3	4	5	6
5	My supervisor is concerned about the welfare of those under him.	1	2	3	4	5	6
6	My supervisor pays attention to what I am saying.	1	2	3	4	5	6
7	My supervisor is helpful in getting the job done.	1	2	3	4	5	6
8	My supervisor is successful in getting people to work together.	1	2	3	4	5	6

Appendix J

Utrecht Work Engagement Scale

The following nine statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

Sr. No.	Statements		Almost Never	Rarely	Sometimes	Often	Very Often	Always
		0	1	2	3	4	5	6
		Never	A Few Times a Year or Less	Once a Month or Less	A Few Times a Month	Once a Week	A Few Times a Week	Every Day
1	At my work, I feel bursting with energy.	0	1	2	3	4	5	6
2	At my job, I feel strong and vigorous.	0	1	2	3	4	5	6
3	I am enthusiastic about my job.	0	1	2	3	4	5	6
4	My job inspires me.	0	1	2	3	4	5	6
5	When I get up in the morning, I feel like going to work.	0	1	2	3	4	5	6
6	I feel happy when I am working intensely.	0	1	2	3	4	5	6
7	I am proud of the work that I do.	0	1	2	3	4	5	6
8	I am immersed (absorbed) in my work.	0	1	2	3	4	5	6
9	I get carried away when I am working.	0	1	2	3	4	5	6

Appendix K

Job Related Affective Wellbeing Scale

Sr. No.	Below are a number of statements that describe different emotions that a job can make a person feel. Please indicate the extent to which any part of your job (e.g., teaching, research, colleagues, chairperson, students, pay) has made you feel that emotion in the past 30 days.	Never	Rarely	Sometimes	Often	Always
1	My job made me feel at ease.	1	2	3	4	5
2	My job made me feel angry.	1	2	3	4	5
3	My job made me feel anxious.	1	2	3	4	5
4	My job made me feel bored.	1	2	3	4	5
5	My job made me feel calm.	1	2	3	4	5
6	My job made me feel content.	1	2	3	4	5
7	My job made me feel depressed.	1	2	3	4	5
8	My job made me feel disgusted.	1	2	3	4	5
9	My job made me feel discouraged.	1	2	3	4	5
10	My job made me feel energetic.	1	2	3	4	5
11	My job made me feel excited.	1	2	3	4	5
12	My job made me feel ecstatic.	1	2	3	4	5
13	My job made me feel enthusiastic.	1	2	3	4	5
14	My job made me feel frightened.	1	2	3	4	5
15	My job made me feel furious.	1	2	3	4	5
16	My job made me feel gloomy.	1	2	3	4	5
17	My job made me feel fatigued.	1	2	3	4	5
18	My job made me feel inspired.	1	2	3	4	5
19	My job made me feel satisfied.	1	2	3	4	5
20	My job made me feel relaxed.	1	2	3	4	5

Appendix L

Organizational Citizenship Behavior Scale

Sr. No.	Following statements describe various job behaviors. Please indicate the extent to which you demonstrate these behaviors on your job by circling the appropriate number against each statement.	Never	Rarely	Sometimes	Often	Always
1	My attendance at work is above the norm.	1	2	3	4	5
2	I give advance notice when unable to come to the department.	1	2	3	4	5
3	I take undeserved work breaks.	1	2	3	4	5
4	I spent a great deal of time with personal phone conversations.	1	2	3	4	5
5	I complain about insignificant things at work.	1	2	3	4	5
6	I conserve and protect university's property.	1	2	3	4	5
7	I adhere to informal rules devised to maintain order.	1	2	3	4	5
8	I help others who have been absent.	1	2	3	4	5
9	I help others who have heavy workloads.	1	2	3	4	5
10	I assist my boss with his or her work when not asked.	1	2	3	4	5
11	I take time to listen to coworkers' problems and worries.	1	2	3	4	5
12	I go out of my way to help new employees.	1	2	3	4	5
13	I take personal interest in other employees.	1	2	3	4	5
14	I pass along information to coworkers.	1	2	3	4	5

Appendix M

In-role Performance Scale

Sr. No.	The following statements describe various behaviors on your job. Please indicate the extent to which you demonstrate these behaviors on your job.	Never	Rarely	Sometimes	Often	Always
1	I adequately complete assigned duties.	1	2	3	4	5
2	I fulfill responsibilities specified in job description.	1	2	3	4	5
3	I perform tasks that are expected of me.	1	2	3	4	5
4	I meet formal performance requirements of the job.	1	2	3	4	5
5	I engage in activities that will enhance my performance evaluation ratings.	1	2	3	4	5
6	I **neglect** aspects of the job I am obliged to perform.	1	2	3	4	5
7	I **fail** to perform essential duties.	1	2	3	4	5

Appendix N

Organizational Deviance Scale

Sr. No.	The following statements also describe various behaviors on your job. Please indicate how often you have engaged in these behaviors on your job.	Never	Once or Twice a Year	Several Times a Year	Once or Twice a Month	Weekly
1	Taken property from work without permission.	1	2	3	4	5
2	Spent too much time fantasizing or daydreaming instead of working.	1	2	3	4	5
3	Falsified a receipt to get reimbursed for more money than you spent on university expenses.	1	2	3	4	5
4	Taken an additional or longer break than is acceptable at my workplace.	1	2	3	4	5
5	Come in late to work without permission.	1	2	3	4	5
6	Messed up my work environment.	1	2	3	4	5
7	Neglected to follow instructions of my boss.	1	2	3	4	5
8	Intentionally worked slower than I could have worked.	1	2	3	4	5
9	Discussed confidential university information with an unauthorized person.	1	2	3	4	5
10	Used an illegal drug or consumed alcohol on the job.	1	2	3	4	5
11	Put little effort into my work.	1	2	3	4	5
12	Dragged out work in order to get overtime.	1	2	3	4	5
13	Made fun of someone at work.	1	2	3	4	5
14	Said something hurtful to someone at work.	1	2	3	4	5
15	Made an ethnic, religious, or racial remark at work.	1	2	3	4	5
16	Cursed at someone at work.	1	2	3	4	5
17	Cracked a nasty joke at someone at workplace.	1	2	3	4	5
18	Acted rudely toward someone at work.	1	2	3	4	5
19	Publicly embarrassed someone at work.	1	2	3	4	5

Appendix O

Maslach Burnout Inventory-ES

Sr. No.	Below are a number of statements that describe different feelings that you may feel at work. Please indicate how often, in the past 30 workdays, you have experienced each of the following feelings.	Never	A Few Times A Year	Once a Month	A Few Times A Month	Once a Week	A Few Times A Week	Everyday
1	I feel emotionally drained from my work.	0	1	2	3	4	5	6
2	I feel used up at the end of the workday.	0	1	2	3	4	5	6
3	I feel tired when I get up in the morning and have to face another day on the job.	0	1	2	3	4	5	6
4	I can easily understand how my students feel about things.	0	1	2	3	4	5	6
5	I feel I treat some students as if they were impersonal objects	0	1	2	3	4	5	6
6	Working with people all day is really a strain for me.	0	1	2	3	4	5	6
7	I deal very effectively with the problems of my students.	0	1	2	3	4	5	6
8	I feel burned out from my work	0	1	2	3	4	5	6
9	I feel I am positively influencing other people's lives through my work.	0	1	2	3	4	5	6
10	I have become more callous (insensitive) toward people since I took this job.	0	1	2	3	4	5	6
11	I worry that this job is hardening me emotionally.	0	1	2	3	4	5	6
12	I feel very energetic.	0	1	2	3	4	5	6
13	I feel frustrated by my job.	0	1	2	3	4	5	6
14	I feel I am working too hard on my job.	0	1	2	3	4	5	6
15	I **do not** really care what happens to some students.	0	1	2	3	4	5	6
16	Working with people directly puts too much stress on me.	0	1	2	3	4	5	6
17	I can easily create a relaxed atmosphere with my students.	0	1	2	3	4	5	6
18	I feel joyful after working closely with my students.	0	1	2	3	4	5	6
19	I have accomplished many worthwhile things in this job.	0	1	2	3	4	5	6
20	I feel as if I am going beyond the point of my endurance.	0	1	2	3	4	5	6
21	In my work, I deal with emotional problems very calmly.	0	1	2	3	4	5	6
22	I feel students blame me for some of their problems.	0	1	2	3	4	5	6

Appendix P

Introduction and Consent

I am a PhD scholar in Industrial/Organizational Psychology at National Institute of Psychology, Quaid-i-Azam University, Islamabad. My PhD dissertation is focusing on the effects of positive psychological capital on work attitudes, intentions, and behaviors in university teachers for which I am collecting pertinent data and your cooperation in this regard would be highly applauded. I shall be very grateful to you if you kindly participate in my study and provide me some invaluable information on the following pages. Your participation in this study is voluntary. The questions in this survey pertain to your personality, characteristics of your university, features of your job, and your job behaviors. The information you are going to provide would be anonymously analyzed and would never be used for any purpose other than the research. Completing this survey would neither expose you to any foreseeable risk nor would these information affect any aspect of your job because all the responses will be kept confidential, and any identifying information will be deleted at the completion of the study.

I appreciate your invaluable time and beseech you to read each and every statement of all the accompanying scales and encircle or check the response option against each statement that best reflect your opinion or feelings. There are no right or wrong choices in the following questionnaires; rather it is your genuine opinion or feeling that matters to this research. You are further requested to ensure that you have responded to all the statements in this booklet. It would only take 30 to 45 minutes of your precious time to get through this survey.

If you have any queries or concerns or would like to have a review of the summative results of the study, please contact Dr. Anila Kamal, Professor, National Institute of Psychology, Quaid-i-Azam University, Islamabad during work hours (9:00 AM - 4:00 PM) or Mr. Adnan Adil, Lecturer, Department of Psychology, University of Sargodha at 0321-6036747 (livespirit786@yahoo.com).

If you consent to participate in this study, please sign your name below as your informed consent to be a part of the study. Please return this sheet with the survey. This sheet will be removed from the rest of the survey instantaneously after it is received by the researchers, and will never be associated to your responses in this survey.

Signature: ---------- Date:

Thank you for participating in this study!

Yours sincerely,

Adnan Adil

Appendix Q

Demographic Information Sheet

Name:_____

Gender: ☐ Male ☐ Female

Designation:_____ Department: _____

Faculty:_____

University: _____

Status of Job (Please Check One): ☐ Regular ☐ Contract ☐ Probation

Age:_____Years Highest Qualification:_____

Have You Ever Studies Abroad (Please Check One): ☐ Yes ☐ No

Degree Obtained From Abroad: _____

Total Experience on the Job: _____ Years

You are Working on the Current Position Since _____ Years