Psychological Capital, LMX, Employee Engagement & Work Role Performance

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This study explores the linkages among psychological capital, quality of employee-employer relationship through the lens of Leader-Member exchange theory and the process of employee engagement. Furthermore it explores the effect of employee engagement process on the performance of employees in various work roles. Adopting a survey based research design a sample of 298 Indian working managers at different levels in various sectors is analyzed. The findings provide insights in to how psychological capital, LMX influence employee engagement process and work role performance. It suggests that individual's high psychological capital and high quality relationship with their leaders is positively related to employee engagement and performance of individual in various work roles.

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Introduction

In the current dynamic business environment where people are looking for better opportunities, it has become extremely difficult to engage employee force. Since, human resources in any organization play a significant role to succeed in market, every organization is looking for devoted, talented, proactive and moreover engaged employees which give firms competitive advantages. In extant research, a number of personal and work related factors have been studied as antecedents for employee engagement. However, past research fails to explore some of the important factors which can also have positive association with employee engagement. These include various personal as well as job related factors, which affect employee engagement and their performance. The extant literature includes personal resources as self efficacy, organization based self esteem, optimism (Xanthopoulou et al, 2007; Bakker & Demerouti, 2008) ; personality (Langelaan et al, 2006); core self evaluation (Rich et al, 2010). However, there is dearth of research which explores the collective set of various capacities

called psychological capital and its linkage with engagement as well as performance. The psychological capital is a positive state of development, includes various dimensions as self efficacy, hope, optimism and resilience (Luthans, et al, 2007). Highly self-efficacious employees have the tendency to believe in their potential and experience good outcomes in life and self-efficacy is the primary dispositional predictor of employee engagement (Bandura, 1982). Hope is defined as a positive motivational state based on an interactive sense of success through willpower (goal directed energy) and pathways (planning to meet goals) (Snyder, et al, 1991; Luthans et al, 2008). Moreover, optimism is the tendency of an individual to believe in best possible outcomes in the face of uncertainty (Peale, 1956) and resilience is defined as the capacity to rebound from adversity, conflict and failure or even positive events, progress and increased responsibility (Luthans, 2002). Such positive motivational states lead to higher levels of employee engagement (Luthans, et al, 2008).

The job related factors also called job resources are identified as social support from supervisor and collegues, challenging work opportunity (Bakker & Demerouti, 2008; Schaufeli & Salanova, 2007; Demerouti et al, 2001), leadership potential (Konczak et al, 2000); as well as psychological contract (Bhatnagar & Biswas, 2010), which influences employee enagagement. Furthermore employee employer relationship also plays an important role to engage employees but still in nascent stage in the extant literaure. The paper addresses employee employer relationship through the lens of Leader-Member exchange (LMX) theory of leadership. LMX is the relationship based approach of vertical dyads (Dansereau, et al, 1975; Graen & Cashman, 1975). LMX is a system of components and their relationships, involving both members of a dyad and their interdependent patterns of behavior, sharing mutual outcome (Scandura, et al, 1984).

The engaged employees perform well in their work roles.

Employee engagement refers to the simultaneous investment of physical, cognitive and affective energy of a person into a work role, and hence provides a more conclusive explanation of personal effectiveness in three dominating roles of an employee: individual member, team member and organization member (Kahn, 1990; May et al, 2004; Rich et al, 2010). The engaged employees perform well in their work roles. Moreover, work role performance covers the spectrum of performance constructs and its different dimensions linking them to the context in which work is performed (Griffin et al, 2007). Work role performance includes various sub dimensions: individual task proficiency, team member proficiency, organization member proficiency, individual task adaptivity, team member adaptivity, organization member adaptivity, individual task proactivity, task member proactivity and organization member proactivity (Griffin et al, 2007). The goal of the present study is to ad-

dress the important and relatively less explored linkage among LMX, psychological capital, employee engagement and their performance.

LMX & Psychological Capital

Various forms of leadership such as transformational leadership and self-leadership enhance employee self-efficacy and cohesiveness therefore enhance performance (Prussia et al, 2003; Pillai & Williams, 2004). Furthermore, the empirical evidence in literature has established that trustworthy, ethical and authentic leaders influence followers' psychological capital through positive work climate (Rachel et al, 2009; Woolley et al, 2010; Walumbwa et al, 2011; Rego et al, 2012). Also, the inspiring leaders facilitate followers to strengthen their psychological capital and transcend their self interest (Gooty et al, 2009). Leaders help employees to develop self efficacy through the opportunities to experience mastery/ success, vicarious learning/ modeling, social persuasion and positive feedback, psychological and physiological arousal and well being (Bandura, 1997; 2000). Similarly, hope can be enhanced through various initiatives including participative goal setting, stretch goals, stepping, involving employees in decision making, transparent reward system, providing adequate resources, training and providing better strategic alignment (Luthans, et al, 2008). Furthermore, providing leniency in assessing past performance, appreciation for the present and opportunity for the future can enhance optimism and resilience in employees (Schneider, 2001). Hence the better quality relationship between employee and employer facilitates the development of employees' psychological capital.

Thus, we hypothesize:

H1: Leader –Member exchange relationship will be positively related to psychological capital of employees.

LMX & Employee Engagement

Leaders in an organization play a vital role in engaging and retaining the talent for a longer time (Snyder & Lopez, 2002). 'Employee-employer relationships' influence the economic as well as the behavioral outcomes of an organization (Rousseau, 1989) and hence the leader-member relations become critical in defining the level of engagement of the employee. In periods of turbulence and change including in times of rapid economic growth, leaders who understand what drives employee engagement, can build a workforce that is motivated to perform (Wiley, 2010). However, leader or supervisor fails to motivate their subordinates uniformly and develops "in-group and out-group" members. The in group members make a high quality relationship which includes trust, open communication and respect for each other and motivates employees to exert their full energy in their work roles while out group members make a contractual type of relationship. Furthermore, leader empowering behavior helps employees to engage in their work (Konczak et al, 2000; Schalkwyk, et al, 2010; Wiley, 2010, Attridge, 2009) and enables better performance with enhanced commitment

towards the organization (Walumbwa, et al, 2011). Also, leader empowering behavior influences employee engagement through psychological empowerment and role clarity (Konczak et al, 2000; Schalkwyk, et al, 2010; Wiley, 2010, Attridge, 2009; de Villiers & Stander, 2011; Mendes & Stander, 2011). Social exchange theory, with its emphasis on reciprocation, does explain why workers experiencing high quality LMX are engaged to their organizations than those experiencing low quality relationships (Walumbwa et al, 2011, Cheung and Weiping Wu, 2012). We therefore posit:

H2: Leader-Member exchange relationship will be positively related to employee engagement.

Psychological Capital & Employee Engagement

Employees' psychological capital also defines their levels of engagement with their organization.

Exposed to similar working conditions and resources, presence or absence of psychological capacities determines the levels of employee engagement.

More engaged and less engaged employees are likely to possess different traits as well as be performing different nature of jobs (Inceoglu & Warr, 2009). Exposed to similar working conditions and resources, presence or absence of psychological capacities determines the levels of employee engagement. Employees with high psycap (self-efficacy, organization-based self-esteem, optimism, and resilience) demonstrate higher levels of employee engagement (Janssen et al., 1999; Hobfoll et al, 2003; Xanthopoulou et al, 2007; Bakker & Schaufeli, 2008; Bakker &Demerouti 2008; Bakker, 2011). Moreover, past research posits that those employees possessing positive attitudes towards themselves (high core self-evaluation) engage more with the organization (Judge et al, 1997; Bono & Judge, 2003; Rich et al, 2010; Sharma & Raina, 2010; Shorbaji et al, 2011).

Hence we posit that:

H3: Psychological capital will be positively related to employee engagement.

Employee Engagement &Work Role Performance

The extant literature on performance includes a variety of contexts and measures ranging from whole performance domain, job specific and non-job specific measures (Campbell et al., 1993); task performance and contextual performance, various work role behaviors including job role, career role, innovator role, team role and organization role behavior (Welbourne et al., 1998); task, citizenship and adaptive performance (Johnson, 2003; Borman et al., 2001) and proactive behavior (Frese & Fay, 2001; Crant, 2000; Parker et al., 2006). Engaged employees have been shown higher level of job performance, work performance and in-role performance

(Rich et al, 2010; Bakker & Demerouti, 2007; Salanova et al, 2005; Whittington & Galpin, 2010) as well as business level outcomes as low turnover intentions (Demerouti et al., 2001; Schaufeli & Bakker, 2004). Adaptive and proactive behaviors of work role performance are outcomes of high levels of engagement (Salnova & Schaufeli, 2008). Therefore we posit:

H4: Employee engagement will be positively related to work role performance.

Mediating Role of Employee Engagement

Leadership member exchange behaviors influence employee in role performance and extra role performance, organizational outcomes, organization commitment and OCB (Hui & Law, 1999; Chen & Silverthorne, 2005; Cheung & Wei-ping Wu, 2012; Walumbwa et al, 2011). Moreover, high quality LMX is associated with higher feelings of psychological empowerment (Greco et al, 2006) and which facilitates them to express better during role performances (Dvir et al, 2002; May et al, 2004; Reynders, 2005; Greasley et al., 2008; Avey et al., 2008). Also, employee engagement could be an intervening process between LMX and work role performance (Walumbwa et al., 2011). Hence, we hypothesize that high quality LMX leads to higher levels of employee engagement, and therefore higher work performance. In other words, we posit that employee engagement mediates the relationship between LMX and performance outcomes. Therefore, we posit that

H5: LMX will be positively related to work role performance.

H6: Employee engagement mediates the relationship between LMX and work role performance.

Employees can develop their psychological capital thereby improving individual and organizational performance (Luthans et al, 2008; Avey, et al, 2008). Employees' positive psychological resource capacities relate to, and contribute to higher organizational performance appraisals, better job satisfaction, work happiness, organizational commitment and positive organizational behavior (Youssef & Luthans, 2007; Luthans & Youssef, 2007). Higher levels of psychological capital encourage higher levels of employee engagement, and therefore better performance. Therefore, we posit that:

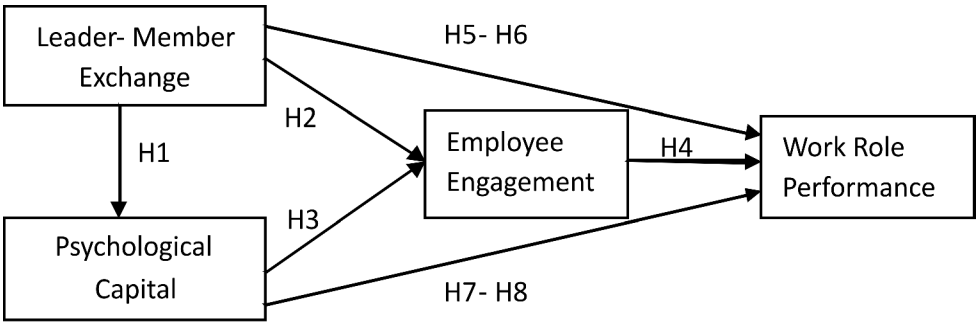
H7: Positive psychological capacities will be positively related to work role performance.

Higher levels of psychological capital encourage higher levels of employee engagement, and therefore better performance.

H8: Employee engagement mediates the relationship between psychological capital and work role performance.

The hypotheses proposed are summarized in fig. 1.

Fig. 1: Conceptual Model



Methodology

The sample includes respondents employed in IT, automobile, textile, banking and hospitals. The inclusion of many types of organizations contributes to the external validity and generalizability of our research findings. The survey participants have an average age of 34 years and organizational tenure of 11 years. The sample covers 78% male and 22% female participants, representing different levels of management: 50% middle-management, 35% junior-management and 15% senior-managers. 46% of the respondents had an under-graduate degree, and 54% had graduate qualifications.

Measures

The following section details each of the survey battery instruments used in measuring each variable. Each scale is scored by aggregating the total scores for each item on a given measure and reporting the total as the composite score for the measure. Unless otherwise indicated, all the variables are measured by participant responses on a five-point Likert-type scale ranging from "strongly disagree" to "strongly agree." The specific measures are described below, along with the reliability results (Cronbach alpha coefficients). In the case of multi-dimensional constructs, each of the dimension (items averaged into dimension scores) was used as indicators in the structural equation model.

Leader Member Exchange: The Leader-Member Exchange (LMX) scale (Graen & Cashman, 1975) is employed to measure the quality of exchange between supervisors and subordinates. This scale was used in various studies including the studies of leader member exchange status (Scandura & Graen, 1984).

Psychological Capital: Psychological Capital (PsyCap) is measured using the 24 item Psycap Questionnaire (PCQ) (Luthans, Youssef &Avolio, 2007). The PCQ, validated by Luthans et al., (2007) has shown strong psychometric properties in a growing number of studies (Avey, Luthans, & Jensen, 2009; Avey et al., 2008; Luthans, Norman et al., 2008).

*Employee Engagement:*Employee engagement is measured by Rich et al, (2010) as job engagement including physical engagement, emotional engagement and cognitive engagement. The questionnaire also includes organization engagement dimension defined by Saks (2006) to integrate the employee engagement in various work roles.

Work Role Performance: Work role performance is measured using the Griffin, Neal & Parker' scale (2007) which includes three sub-dimensions of work role performance – proficiency, adaptivity, and proactivity at the individual, team and organization levels. The scale includes 27 items to measure 9 sub dimensions of performance which converged into three dimensions. We prefer to use self-ratings of performance because these are likely to be based on greater familiarity with the full range of behaviors in a role (Lance, Teachout, & Donnelly, 1992).

*Control Variables:*Age, gender, education are measured and included in subsequent analyses to control for their potential for spurious effects. Gender was measured in a nominal scale (Female=0; Male=1); age in an ordinal scale and assigned five categories in increasing order; education in nominal scale (Undergraduate=1; Graduate=2; Doctoral degree=3).

Confirmatory Factor Analysis

To assess the direct and indirect relationship among psychological capital, LMX, employee engagement and work role performance, we followed two step approach using confirmatory factor analysis and structural equation modeling based on LISREL 8.52 (Anderson & Gerbing, 1988; J Öreskog & S Örbom, 1993). For each of the confirmatory factor analyses reported we used the root mean square error of estimation (RMSEA) to assess whether the factor structure adequately fits the data.

Correlations & Regression

Table 1 reports descriptive statistics and correlations among all variables. As shown in the table, all the study variables possess acceptable reliability (Cronbach alpha).

The correlations support hypothesis 1 and 2 that posited high LMX will be positively related to psychological capital and employee engagement. It also provides support for hypothesis 3 that posited psychological capital will be positively related to employee engagement. There is also support for hypothesis 4 that engaged employees perform better in their work roles. LMX and psychological capital are also significantly positively related to all three indicators of work role performance, thus supporting hypothesis 5 and 7.

Structural Equations Modeling

We chose to analyze the data using nested model analysis to strengthen our hypotheses examining the relationship among LMX, psychological capital, em-

Table 1 Means, standard deviations, and correlations among the study variables

	Mean	Std. deviation	SEF	HOP	OPT	RES	LMX	PE	EE	CE	OE	IRP	TRP	ORP
Age	33.20	0.70												
Gender	1.21	0.41												
Education	1.55	0.52												
Org. tenure	5.05	5.25												
SEE	4.04	0.61	(.796)											
HOP	3.85	0.64	.552**	(.833)										
OPT	3.74	0.60	.522**	.518**	(0.736)									
RES	3.62	0.62	.373**	.392**	.289**	(.564)								
LMX	2.82	0.66	.388**	.368**	.252**	.264**	(.851)							
PE	4.03	0.73	.553**	.594**	.485**	.357**	.302**	(.947)						
EE	3.95	0.77	.449**	.629**	.401**	.479**	.361**	.673**	(.946)					
CE	3.98	0.73	.471**	.571**	.460**	.347**	.289**	.768**	.669**	(.947)				
OE	3.61	0.75	.364**	.536**	.344**	.337**	.346**	.567**	.680**	.622**	(.911)			
IRP	4.09	0.61	.506**	.518**	.532**	.357**	.258**	.608**	.567**	.658**	.509**	(.922)		
TRP	4.13	0.57	.607**	.587**	.620**	.416**	.330**	.693**	.627**	.739**	.567**	.768**	(.962)	
ORP	4.06	0.65	.437**	.525**	.404**	.431**	.359**	.582**	.650**	.681**	.675**	.661**	.696**	(.891)

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

*. Correlation is significant at the 0.05 level (2-tailed)

n= 298 Internal reliabilities (alpha coeffioients) for the overall construots are given in parentheses on the diagonal.

SEF-Self efficacy, HOP-Hope, OPT-Optimism, RES-Resilience, LMX-Leader member exchange, PE-Physical engagement, EE-Emotional engagement, CE-Cognitive engagement, OE-Organizational engagement, IRP-Individual role performance, TRP-Team role performance, Orp-Organization role performance.

ployee engagement and work role performance. The relationships between the constructs were analyzed through Structural Equation Modeling using LISREL 8.52 to test the whole model simultaneously. To assess model fit in SEM, we reported the overall model chi-square measure, Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Standardized Root Mean Square Residual (SRMR) and Root Mean Square Error of Approximation (RMSEA) (Hooper et al, 2008; Hu & Bentler, 1999). Table 2 reports the results for nested model analysis. The nested model analysis controls for potential multi-collinearity between the dimensions of the constructs. Relative χ^2 (χ^2/df) less than 2, RMSEA less than 0.08, CFI greater than 0.95 and SRMR less than 0.05 were taken as acceptable threshold levels (Hooper et al., 2008; Hu & Bentler, 1999).

Table 2 Nested Model Analysis Comparisons

Model	χ^2	df	χ^2/ df	$\Delta\chi^2$	CFI	GFI	SRMR	RMSEA
Measurement Model	87.37	46	1.90		0.98	0.93	0.041	0.068
Model 1: Hypothesized Model	**77.39**	**45**	1.72	**9.98****	**0.99**	**0.94**	**0.039**	**0.061**
Model 2: LMX Psycap →WRP	97.07	47	2.07	9.7**	0.98	0.92	0.044	0.074
Model 3 LMX Psycap →EE	97.07	47	2.07	9.7**	0.98	0.92	0.044	0.074
Model 4: EE →WRP	98.7	48	2.06	11.33**	0.98	0.92	0.042	0.073

Note: LMX- Leader member exchange, EE- Employee engagement, WRP- work role performance, Psycap-Psychological capital. The χ^2 vale for hypothesized model is minimum and shown in bold. Chi Square (χ^2) values for the measurement and alternative models are significant at p<.001 shown by **. Difference score is calculated with respect to measurement model with 46 df.

The table includes five models in total. The three alternative models indices are compared with the hypothesized model and shows good degree of fitness. The chi square reported is significant (p<.001) in all the models which means that the proposed model and calculated model are not significantly different. The hypothesized model fits the data well. The chi square for hypothesized model is minimum compared to other alternative models. Additionally the RMSEA has declined to .061, which is small enough to indicate a good fit. The $\Delta\chi^2$ for hypothesized model is also on lower side compared to other models.

Testing for Mediation

Mediation tests were performed to establish whether the conditions suggested by Baron and Kenny (1986) are met. Sobel test is used to compute the Sobel z-value and the significance of the mediation effect of employee engagement on the association between LMX and work role performance; as well as between psychological capital and work role performance. The results are summarized in Table 3. All the four conditions for mediation specified by Baron and Kenny (1986) are met. The Sobel value is 5.401 (>1.96,

acceptable) and shows full mediation with 84.45%. The direct effect (a*b) .245, indirect effect (c') .046 and total effect (c) .291 is significant at p=.01 level.

Employee engagement is a mediating variable between LMX and work role performance and psychological capital and work role performance.

Table 3 Mediation Analysis (Sobel Test)

	Sobel value	P value	% of mediation	Ratio of indirect to direct effect	c	a	b	c'
LMX— Work role performance	5.401	0	84.45	5.342	0.291**	0.369**	.666**	0.046
Psycap— Work role performance	8.48	0	59.15	1.447	0.832**	0.965**	0.51**	0.34**

Note: ** values are significant at p<.001.

Thus employee engagement is a mediating variable between LMX and work role performance and psychological capital and work role performance and supports hypothesis 6 and 8 respectively. Hence we can summarize the results that employee engagement is a mediating variable and between LMX and work role performance as well as psychological capital and work role performance.

Discussion & Conclusion

This paper tried to test how psychological capital and leader member exchange behavior influence employee engagement and their performance in various roles. We have tested the convergent and discriminant validity by confirmatory factor analysis. The findings are well in support of defining the various unique dimensions of used constructs. Also, results show that high quality exchange relationships facilitate to develop employee's psychological capital. Hypotheses 2 and 3 show that psychological capital and high quality leader member behavior is also positively related to employee engagement. Employee employer relationship plays an important role to retain employees in the organization. Hence high LMX helps to retain the talented work force and employees' psychological capital helps them engage and perform in their work roles. The study also explores mediating effect of employee engagement on the association between LMX and work role performance; and between psychological capital and work role performance. The findings highlight the mediating effect of employee engagement on the relationship between LMX, psychological capital and work role performance. Better quality of relationship between leader (supervisor) and member (employee) leads to employee engagement and hence they perform better in various work roles performed in the organization.

The findings are in line with the social exchange theory which postulates that when employees are provided with socio-economic resources as quality relationship with their supervisors, they feel obliged to provide a return in exchange, and therefore demonstrate higher levels of engagement and better performance at their work.

Employee engagement is not an outcome but a process that leads to better performance.

The discussion asserts that employee engagement is not an outcome but a process that leads to better performance. Employee engagement amplifies the association between LMX and work role performance by 84.45% and psychological capital and work role performance by 59.95%. However, in case of psychological capital and work role performance the index is reduced significantly but not insignificant or zero implying partial mediation (Jose, 2008; Baron and Kenny, 1986). As employee engagement mediates the relationship between psychological capital and performance by 59.95% which support that individual's personal characteristics are not the only factor to engage an employee. There are other factors which facilitate the employees to engage in their work roles. The LMX and psychological capital are significantly positively related to LMX which shows that a trustworthy and transparent relationship between an employee and employer also strengthens employee's psychological capital. The full mediation between LMX and performance highlights the criticality of the LMX relationship in employee engagement, and in its absence, performance might suffer.

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