# Development of a Measure of Employee Engagement

**Surya Prakash Pati**

*Despite the enhanced interest of academicians and practitioners in the construct of employee engagement, there exists a dearth of choices in the various measures for its assessment. This paper attempts to develop a multidimensional instrument of employee engagement. Initial support for the construct validity of the seven item instrument was demonstrated. Directions for future research are also discussed.*

***Surya Prakash Pati is*** Visiting Assistant Professor, Indian Institute of Management Kozhikode. Email:sppati@gmail.com

## Introduction

The concept of employee engagement, despite receiving increased attention lately (e.g. Pati & Kumar, 2010; 2011a; Joshi & Sodhi, 2011) continues to remain as "one of the greatest challenges facing organizations in this decade and beyond" (Frank et al., 2004), as deepening disengagement amongst employees (Bates, 2004) becomes more explicit. These disengaged employees exhibit a passionless and uninterested attitude towards their work thereby bringing about a damaging impact on self, peer and organizational performance.

**The extant theories conceptualize engagement as an attitude whose assessment is susceptible to social desirability bias.**

Researchers have contended that organizations are unable to develop an engaged workforce and reap its promising benefits owing to the conceptual ambiguity surrounding the same (Macey & Schneider, 2008; Pati & Kumar, 2011b). Typically the construct of engagement has been confused with related organizational con-

structs (Hallberg & Schaufeli, 2006; Macey & Schneider, 2008; Pati & Kumar, 2011b) thereby leading to erroneous assessments and interventions. Further, till date only three academically grounded theories, viz. the Role Theory Approach (Kahn, 1990), the Burnout Approach (Maslach & Leiter, 1997; Schaufeli et al., 2002) and the Social Exchange Theory Approach (Saks, 2006) have tried to provide a theoretical anchor to the construct as well as develop validated measures for its assessment. However they are limited by their inadequacy in explaining the variation of engagement levels of employees across multiple tasks (Pati & Kumar 2011b). Moreover the extant theories conceptualize engagement as an attitude whose assessment is susceptible to social desirability bias (Green & Rao, 1971). Attitude scales have also been criticized for their inability to predict behaviour (Morrow, Jackson & Disch, 2006). Therefore, instruments that capture engagement as a behavioural construct are necessary for not only they provide a relatively objective measure of the construct, but also contribute towards setting a benchmark for positive workplace behaviour. Finally, the limited availability of validated measures of engagement and the maximal usage of the measure constructed by Schaufeli et al (2002) heralds the warning by Cook and Campbell (1976) on the potential construct under-representation. Thus, there is a need for development of multiple measures of the engagement construct to facilitate triangulation (Cook & Campbell, 1976) as well as high construct validity (Messick, 1995).

**A Behavioural Characterization of Engagement**

In order to account for the above mentioned limitations in the literature on employee engagement, Pati and Kumar (2011b) re-characterized engagement as "expressed empowerment pertaining to a role". Taking a behavioral perspective of engagement as well as employing a qualitative methodology, they argued that only psychologically enabled employees can be engaged which in turn manifests as Passionate Task Performance (PTP) and Organizational Citizenship Behavior (OCB). Each of the above concepts is discussed below:

*Passionate Task Performance (PTP):* Pati and Kumar (2011b) defined passionate task performance (PTP) as investment of discretionary effort in one's assigned task in order to bring out a different as well as self and organizationally beneficial outcome against scripted task performance. They delineated discretionary effort as investment of extra time, brainpower and energy (Towers-Perrin, 2003), in not just generating more of the usual (Macey & Schneider, 2008), but bringing about something different and beneficial. They argued that PTP is a tangible manifestation of "perceived meaningfulness" (Kahn, 1990) as well as "vigour" dimension of Schaufeli et al. (2002).

*Organizational Citizenship Behaviour (OCB):* Although Saks (2006) had excluded OCB as a possible dimension of engagement on grounds of it being extra-role and voluntary behaviour,

Pati and Kumar (2011b) argued for its inclusion as a dimension of engagement in recognition towards its significant contribution in lubricating the social machinery that facilitates the exhibition of discretionary behaviour or PTP. Further, on the basis of evidence from literature that demonstrated the transferability (or crossing over) of engagement form one individual to another (e.g. Bakker et al., 2005), they asserted the importance of every employee being engaged as well as the onus on every individual irrespective of hierarchy to create an organizational culture conducive to engagement. Additionally, based on the findings of Vey and Campbell (2004), that certain forms of OCB (conscientiousness and courtesy) were more likely to be considered as in–role behaviours, they emphasized that creation of an 'engaging' organizational atmosphere constitutes an important part of everyone's in-role performance and OCB is the primary medium to bring this about.

Some general assumptions on the above characterization of engagement by Pati and Kumar (2011b) must be made explicit at this juncture. First, engagement is a continuous variable. People can be viewed more or less engaged, rather than engaged or not engaged. Second, as each of the two dimensions of PTP and OCB are considered to be conceptually distinct, engagement is considered as a positive additive function of these dimensions. Third, the construct of engagement elaborated in this study is not a global one encompassed across different life situations, but rather it is specific to the domain of work, the contrast synonymous with the contrast of the organization based self esteem (Pierce et al., 1989) from that of global self esteem.

**Measure Development Process**

Anchored on the conceptual platform provided by Pati and Kumar (2011b), the construction of the scale was initiated as detailed by the De Vellis's (1991) procedure for scale development. The major steps are elaborated as follows:

*Item generation:* In this stage the intention was to generate a large pool of items for possible inclusion in the scale. In the present formulation, as employee engagement is envisaged as a multidimensional construct, items that tap both the dimensions of PTP and OCB needed to be included. Although there is a substantial quantity of research available on OCB, however most of the items of PTP have to be written up anew owing to lack of empirical precedent. Thus, based on our understanding of the explanation of PTP provided by Pati and Kumar (2011b), 45 items for the same were generated employing brain storming techniques.

**Only helping behavior, individual initiative and civic virtue are to be considered for incorporation as dimensions of employee engagement.**

Proceeding further, the literature revealed that the conceptual span of OCB is extensive and seven types of workplace behaviours have been identified that can be characterized as OCB,

namely, helping behavior, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue and self development (Podsakoff et al., 2000). On critical comparison and evaluation of each of the above categories of OCB with that of the definition of engagement provided by Pati and Kumar (2011b), i.e. "expressed empowerment", we argue that only helping behavior, individual initiative and civic virtue are to be considered for incorporation as dimensions of employee engagement. Hence items were adapted accordingly from Moorman and Blakely (1992) for both the sub-constructs of helping behavior and individual initiative. For civic virtue, the items were adapted from Organ (1988). Thus, 15 items (5 for each of the sub-construct) were selected to assess the construct of OCB.

**Expert Review**

The 60 items were then evaluated by a panel consisting of one faculty member and three doctoral students. The faculty member, conversant with the content area of engagement, was requested to review each item in terms of its relevance to the domain of engagement. This initial screening resulted in a reduced list of 32 items (21 items for PTP and 10 items for OCB, of which 3 items belonged to civic virtue, 3 items belonged to individual initiative and 4 items belonged to helping behavior), which were further taken forward for evaluation. The doctoral student reviewers were then provided with the definition and description of PTP and OCB developed for this research and asked to judge each item with regard to (a) the relevance to the above constructs as defined (b) conceptual clarity (c) sentence clarity (d) conciseness, and (e) social desirability. Each item was ranked on all the above dimensions, and a mean rank was calculated by averaging the ranking of all the three reviewers. For PTP, the highest ranking 5 items were selected to be included in the final list while the highest ranking 3 items were selected for each of the constructs of helping behavior, individual initiative and civic virtue. Thus, the final version of engagement instrument used for the study consisted of 14 self–report items to be scored on a 5 point Likert continuum (1– Strongly Disagree, 5–Strongly Agree).

The basis for our decision to employ a self report is primarily guided by the inclusion of OCB as a dimension of employee engagement. Although there exists a debate in literature on the suitability of self report versus supervisor report for assessing OCB, we adhere to the self report mechanism for we remain with the argument of scholars that superiors may only observe OCB that is performed in their presence thus resulting in an unfair appraisal of the same thereby leading to low scores (e.g. Moorman, 1991; Ehrhart, 2004). Moreover Schnake (1991) noted that supervisor ratings might be biased due to halo effect, memory distortion and selective memory since citizenship behavior is so difficult to observe. Further, since supervisor ratings are from a single rater, they are likely to be less reliable and valid (Ehrhart, 2004). More importantly, since engagement is argued to be influenced

by perceived meaningfulness of the task (Kahn, 1990), the use of self report is more appropriate, for meaningfulness is an internal construction of employees.

**Inclusion of Validation Items**

To check for social desirability bias, the 5-item Brief Social Desirability Scale (BSDS) developed by Haghighat (2007) was included. Further the 17-item Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) and 22-item Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1986) were included for possible tests of construct validity. The employee engagement scale developed here was expected to positively correlate with the UWES, for both the scales are supposedly measuring the same construct and negatively with MBI since engagement has been argued to be positive antithesis of burnout (Maslach & Lieter, 1997).

**Procedure & Sample**

Respondents were drawn from three different organizations across industries comprising power (1 organization) and information technology (2 organizations) based on purposive sampling. The participants, after being assured confidentiality of their individual responses, were administered a survey instrument that consisted of items related to the instruments of UWES, MBI, BSDS and our 14-item scale of employee engagement. In total 278 usable employee surveys were returned. Respondents were fairly evenly distributed across organizations and industrial sectors. While 38% of the respondents in the resultant sample originated from the power sector, the rest were from information technology. The employees in unison, averaged 34.3 years in age [S.D. = 6.3] and 4.2 years in work experience [S. D. = 5.4]. All of them had a college degree with 34% possessing a Master's degree. Females comprised 52% of the total respondents.

**Analysis & Findings**

Principal component analysis, employing varimax rotation, was carried out on the 14 items of the engagement instrument with no restrictions on the number of factors, resulting in two factors. A total of 6 out of 9 original items, corresponding to the dimensions of individual initiative and helping behavior exhibited solitary loading on one single factor which we christened as organization citizenship behavior (OCB)[eigen value: 2.78]. While two items of civic virtue loaded on PTP, one item had very low factor loading thereby advocating the removal of civic virtue in entirety from further analysis in the interest of brevity and subscale purity. Similarly a total of 3 out of 5 original items conceptualized to represent the dimension of passionate task performance (PTP) [eigen value: 1.74], loaded on a single factor. The final list of retained items, explaining 59% of the variance, is presented in Table 1 with their respective factor loadings. The Cronbach Alpha values, representing the reliability of the subscales, were calculated to be 0.660 for PTP and 0.757

**Table 1 Principal Component Analysis Results for Employee Engagement Input**

| Item | | Factor 1 | Factor 2 |
|---|---|---|---|
| OCB 1: | I frequently suggest coworkers on how the group can improve | 0.853 | 0.191 |
| OCB 2: | I voluntarily help new employees settle into their jobs | 0.783 | 0.188 |
| OCB 3: | I encourage others to try new and more effective ways of doing their job | 0.754 | -.226 |
| OCB 4: | I volunteer to complete extra task | 0.690 | 0.295 |
| OCB 5: | For issues that may have serious consequences, I express my opinions honestly even when others may disagree | 0.656 | 0.283 |
| OCB 6: | I show genuine concern and courtesy towards coworkers, even in most trying business or personal situations | 0.626 | 0.273 |
| PTP 1: | I give my all to my job | 0.104 | 0.853 |
| PTP 2: | I push myself really hard to meet any challenge in job performance | 0.136 | 0.786 |
| PTP 3: | I exert a lot of energy in performing my job | 0.109 | 0.579 |

for OCB respectively, the values being above the specified limit of 0.6 as suggested by Sekaran (1992).

Next, item analyses were conducted for each factor to further purify the scales (Table 2). Following the procedure suggested by Bearden et al. (2001), items were retained if (1)the item-to-total correlation was above 0.35, (2)inter-item correlation above 0.20, and (3)a factor loading above 0.50, given that they have face validity with regard to the appropriate dimension. In accordance with the above guidelines, the items OCB 3 and OCB 4 were dropped from the instrument. However in the interest of subscale reliability as well as considering the higher factor loadings (Table 1), OCB 1 and OCB 2 were retained in the instrument. Finally, a 7-item instrument was carried further for a confirmatory factor analysis (CFA).

**Table 2 Means, Standard Deviations, Reliability & Inter-correlation**

| Items | Mean (Std. Dev) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. PTP 1 | 3.86 (0.95) | | | | | | | | | |
| 2. PTP 2 | 3.79 (1.11) | .518** | | | | | | | | |
| 3. PTP 3 | 3.98 (0.98) | .240** | .395** | | | | | | | |
| 4. OCB 5 | 4.19 (0.83) | .210** | .200** | .167* | | | | | | |
| 5. OCB 6 | 4.10 (0.78) | .270** | .279** | .306** | .446** | | | | | |
| 6. OCB 1 | 3.95 (0.95) | .230** | .128 | .192* | .467** | .454** | | | | |
| 7. OCB 2 | 3.92 (0.94) | .073 | .118 | .156* | .547** | .456** | .464** | | | |
| 8. OCB 3 | 3.82 (1.02) | -.014 | .007 | .182* | .348** | .344** | .318** | .508** | | |
| 9. OCB 4 | 3.92 (1.02) | -.071 | -.153* | .127 | .375** | .436** | .536** | .521** | .645** | |
| 10. Total Engagement | 27.81 (4.12) | .592** | .634** | .572** | .660** | .698** | .650** | .617** | .366** | .372** |

Note: Items' wordings are available in Table 1; *p<0.05; **p<0.01

## Confirmatory Factor Analysis

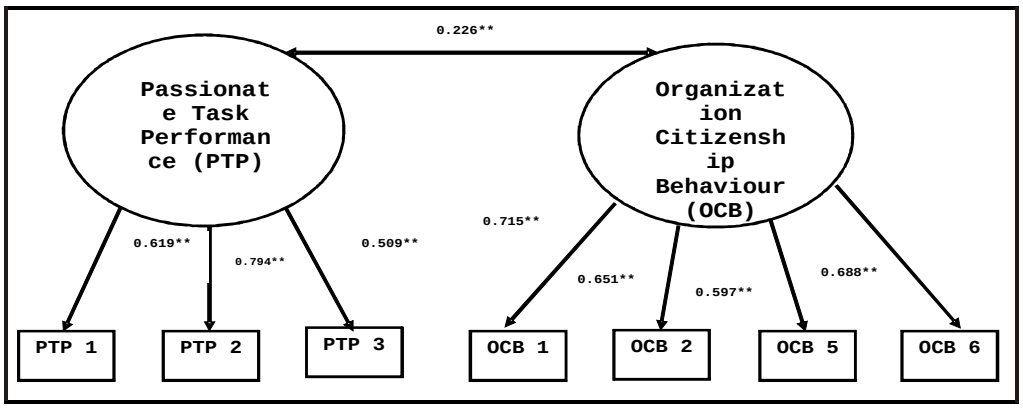
The two subscales obtained from the initial factor analysis and their 7 indicators were subjected to confirmatory factor analysis. It must be mentioned here that although chi square test is the most common method to assess goodness of fit for a model, yet it is highly handicapped by its strong dependence on the sample size. Therefore, many researchers (e.g. Hoe, 2008) vouch for the examination of the ratio of the chi square to the degree of freedom for the model. A ratio less than 3 is often accepted as a good fit. The bi-factor model of the construct was contrasted with a mono-factor model (with all 7 items loading on a single factor) as well as an absolute null model (with no relationships among the 7 items). The results, of various fit indices, depicted in Table 3 supports the acceptance of the bi-factor conceptualization of engagement over the mono-factor and the null models. The Cronbach Alpha values were determined to be 0.660 and 0.771 for PTP and OCB respectively. Fig. 1 portrays the dimensions of PTP and OCB with their corresponding items.

**Table 3 Confirmatory Factor Analysis of Employee Engagement Instrument:Model Fit Indices**

| Model Fit Indices | Acceptable values of (Hoe, 2008) | Bi-factor model output indices (7-item instrument) | Mono-factor model output (7-item instrument) | Null model output (7-item instrument) |
|---|---|---|---|---|
| Chi sq. / df | < 3 | 1.753 | 7.759 | 11.471 |
| CFI | 0.9 – 1 | 0.967 | 0.677 | 0.641 |
| GFI | 0.9 – 1 | 0.968 | 0.692 | 0.600 |
| AGFI | 0.9 – 1 | 0.929 | 0.662 | 0.467 |
| RMSEA | < 0.08 | 0.052 | 0.156 | 0.278 |

Note: Chi sq: Chi square; df: degrees of freedom; CFI: Comparative fit index; GFI: Goodness of fit index; AGFI: Adjusted goodness of fit index; RMSEA: Root mean square error of approximation

**Fig. 1 Confirmatory Factor Analysis of Employee Engagement Instrument**




**p < 0.01; Items' wordings are available in Table 1

**Preliminary Validity Assessment**

The preliminary validity assessment of the developed employee engagement scale was done by conducting a bi-variate correlation of the same with UWES (Schaufeli et al., 2002) and MBI (Maslach and Jackson, 1986) respectively. As a test of convergent validity, the subscales of UWES must positively correlate with the new instrument; similarly the subscales of MBI must be negatively related with the same. As can be observed from Table 4, the correlations are in the expected directions, thereby providing encouraging evidence for convergent validity. It may also be noticed from Table 4 that the new instrument has no significant correlations with the social desirability scale (BSDS). However, the result is inconclusive due to low reliability of the BSDS instrument.

Discriminant validity at the subscale level can be assessed by examining the relationships among the subscales of the new scale and that of UWES. Since Pati and Kumar (2011b) characterize PTP as a tangible manifestation of the "vigor" dimension of Schaufeli et al. (2002), a positive correlation must exist between the two. On the other hand OCB does not have any strict parallel in the scale developed by Schaufeli et al. (2002). It can be observed in Table 5, that the relationship of "vigor" with "PTP" is not only positive but stronger than its relationship with "OCB". The results support the contention that the subscales PTP and OCB are sufficiently distinct conceptually and empirically.

**Table 4 Correlations of UWES & MBI Subscales With Employee Engagement Instrument**

| | UWES (Schaufeli et al. 2002) [Alpha = 0.791] | | | MBI (Maslach and Jackson, 1986) [Alpha = 0.745] | | | BSDS (Hagighat, 2007) [Alpha = 0.592] |
|---|---|---|---|---|---|---|---|
| | Vigour | Dedic | Absorb ation | Exhau tion | Cynicism stion | *Profess ional Efficacy | |
| Employee Engagement | 0.463** | 0.586** | 0.445** | -0.135 | -0.034 | -0.336** | 0.113 |

* Reverse scored; Note: **p<0.05

**Table 5 Preliminary Discriminant Validity of Employee Engagement Instrument**

| | Dimensions of UWES | | |
|---|---|---|---|
| | Vigour | Dedication | Absorption |
| Passionate Task Performance (PTP) | 0.469** | 0.451** | 0.375** |
| Organization Citizenship Behaviour (OCB) | 0.296** | 0.498** | 0.350** |

Note: **p<0.05

## Discussion

This research operationalized the construct of employee engagement as defined by Pati and Kumar (2011b). The study modeled employee engagement to be an additive function of PTP and OCB and brought forth a 7-item instrument to assess the same. Although acceptable evidence was presented towards adjudging the validity of the developed instrument, it must be borne in mind that these validity assessments are preliminary in nature to the extent that these are based on correlations of the new scale with another established scale measuring the same construct or a different scale in the same domain (MBI). Thus, future research must attempt to extort further evidence of validity based on relationships between the new scale and relevant organizational variables. Further identification and empirical examination of different antecedents and consequences for each of the subscales must be done to generate decisive evidence for discriminant validity. Moreover, inconclusive result on the potential social desirability independence of the new scale was obtained, which calls for a re-examination of the instrument in order to raise the confidence on its application and results. Additionally, engagement being a victim of conceptual chaos, and more so in the practitioner's literature (Pati & Kumar, 2011b), construct validation must explore the potential independence of this instrument from the instruments of other theoretically related constructs like organizational commitment, job involvement, workholism etc. Finally the degree of empowerment shall differ across the organizational hierarchy (Menon, 2001) as well as national cultures (Hui, Au & Fock, 2004). Consequently a related variation in degree of engagement can be expected. The factor structure elucidated in this study must be thus examined for its stability across national cultures and hierarchical levels.

## Acknowledgement

The author is thankful to Ms. Shipa Priya for assisting him in his survey for this study.

## References

Bakker, A.B., Demerouti, E. & Schaufeli, W.B. (2005), "Crossover of Burnout and Engagement among Working Couples", *Human Relations,* 58 (5),661–89.

Bates, S. (2004), "Getting Engaged", *HR Magazine*, 49(2), 44-51.

Bearden, W.O., Hardesty, D.M. & Rose, R.L. (2001), "Consumer Self-Confidence: Refinements in Conceptualization and Measurement", *Journal of Consumer Research*, 28, 121–34.

Cook, T. D. & Campbell, D. T. (1976), "The Design and Conduct of Quasi-Experiments and True Experiments in Field Settings", in Dunnette M. (Ed.), Handbook of Industrial and Organizational Psychology, Rand McNally: Chicago, IL.

De Vellis, R. F. (1991), Scale Development: Theory and Applications. Sage: Newbury Park, C.A.

Ehrhart, M. G. (2004), "Leadership and Procedural Justice Climate as Antecedents of Unit-level Organizational Citizenship Behavior", *Personnel Psychology,* 57, 61–94.

Frank, F. D., Finnegan, R. P. & Taylor, C. R. (2004), "The Race for Talent: Retaining and

Engaging Workers in the 21st Century", *Human Resource Planning*, 27(3), 12-25.

Green, P. E. & Rao, V. R. (1971), "Conjoint Measurement for Quantifying Judgmental Data", *Journal of Marketing Research,* 8,355–63.

Haghighat, R. (2007), "The Development of the Brief Social Desirability Scale (BSDS)", *Europe's Journal of Psychology* (http://www.ejop.org), 3(4)[retrieved on 14.05.2010]

Hallberg, U. E. & Schaufeli, W. B. (2006), "Same but Different? Can Work Engagement Be Discriminated from Job Involvement and Organizational Commitment?" *European Psychologist,* 11(2), 119–27.

Hoe, S. L. (2008), "Issues and Procedures in Adopting Structural Equation Modeling Technique", *Journal of Applied Quantitative Methods,* 3(1), 76–83.

Hui, M. K., Au, K. & Fock, H. (2004), "Empowerment Effects Across Cultures", *Journal of International Business Studies,* 35(1), 46-60.

Joshi, R. J. & Sodhi, J. S. (2011), "Drivers of Employee Engagement in Indian Organizations", *Indian Journal of Industrial Relations,* 47(1), 162-82.

Kahn, W. (1990), "Psychological Conditions of Personal Engagement and Disengagement at Work", *Academy of Management Journal*, 33(4), 692-724.

Macey, H. M. & Schneider, B. (2008), "The Meaning of Employee Engagement", *Industrial and Organizational Psychology,* 1, 3–30.

Maslach, C. & Jackson, S. E. (1986), Maslach Burnout Inventory Manual*,* Consulting Psychologists Press: Palo Alto, CA.

Maslach, C. & Leiter, M. P. (1997),"The Truth about Burnout: How Organizations Cause Personal Stress and What to Do about It", in Shirey, M. R. (2006), Stress and Coping in Nurse Managers: Two Decades of Research, *Nursing Economics,* 24(4), 193–203.

Menon, S. T. (2001),"Employee Empowerment: an Integrated Psychological Approach", *Applied Psychology: An International Review,* 50(1),153–80.

Messick, S. (1995), "Validity of Psychological Assessment: Validation of Inferences from Persons' Responses and Performances as Scientific Enquiry into Score Meaning", *American Psychologist,* 50(9), 741–49.

Moorman, R. H. & Blakely, G. L. (1992), "A Preliminary Report on a New Measure of Organizational Citizenship Behavior", in Moorman, R. H. & Blakely, G. L. (1995),"Individualism-Collectivism as an Individual Difference Predictor of Organizational Citizenship Behavior", *Journal of Organizational Behavior*, 16, 127–42.

Moorman, R. H. (1991), Relationship between Organizational Justice and Organizational Citizenship Behaviors: Do Fairness Perceptions Influence Employee Citizenship?" *Journal of Applied Psychology,* 76, 845–55.

Morrow, J. R. (Jr.), Jackson, A. W., Disch, J. G. & Mood, D. P. (2006), Measurement and Evaluation in Human Performance (3rd ed.), Human Kinetics: Champaign, IL

Organ, D. W. (1988), Organizational Citizenship Behaviour, Lexington Books: Lexington, M. A.

Pati, S. P. & Kumar, P. (2010), "Employee Engagement: Role of Self Efficacy, Organizational Support and Supervisor Support", *Indian Journal of Industrial Relations,* 46(1), 126–137.

Pati, S. P. & Kumar, P. (2011a), "Influencing Employee Attitudes through HR Practices: an Exploratory Study in Indian IT Sector", *International Journal of Indian Culture and Business Management,* 3(6), 607-22.

Pati S. P. & Kumar P. (2011b), "Work Engagement: a Rethink", *Indian Journal of Industrial Relations,* 47(2), 264-76.

Pierce, J. L., Gardner, D. G., Cummings, L. L. & Dunham, R. B. (1989), "Organization-Based Self-Esteem: Construct Definition, Measurement and Validation", *Academy of Management Journal,* 32(3), 622-48.

Podsakoff, P. M., MacKenzie, S. B., Paine, J. B. & Bachrach, D. G. (2000), "Organizational Citizenship Behaviors: A Critical Review of the Theoretical and Empirical Literature and Suggestions for Future Research", *Journal of Management,* 26, 513-63.

Saks, A. M. (2006), "Antecedents and Consequences of Employee Engagement", *Journal of Managerial Psychology,* 21(7), 600-19.

Sekaran, U. (1992), Research Methods for Business, John Wiley & Sons: New York, NY.

Schaufeli, W. B., Taris, T. W. & Van Rhenen, W. (2008), "Workaholism, Burnout and Engagement: Three of a Kind or Three Different Kinds of Employee Well Being", *Applied Psychology, an International Review,* 57, 173–203.

Schnake, M. (1991), "Organizational Citizenship: a Review, Proposed Model and Research Agenda", *Human Relations,* 44(7), 735–59.

Towers–Perrin, (2003), "Working Today: Understanding what Drives Employee Engagement", in Macey, H. M. & Schneider, B. (2008), "The Meaning of Employee Engagement", *Industrial and Organizational Psychology,* 1, 3–30.

Vey, M. A. & Campbell, J. P. (2004), "In-Role or Extra-Role Organizational Citizenship Behavior: Which Are We Measuring?" *Human Performance,* 17(1), 119–35.