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Moderation effect of gender on workplace spirituality and commitment relationship: case of Indonesian ethics

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Abstract

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measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1–18.

Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: an examination of construct validity. *Journal of Vocational Behavior*, 49(3), 252–276.

Allen, N. J., & Meyer, J. P. (2000). Construct validation in organizational behavior research: the case of organizational commitment. In R. D. Goffin & E. Helmes (Eds.), *Problems and solutions in human assessment: Honoring Douglas N Jackson at Seventy* (pp. 285–314). Norwell: Kluwer.

Anderson, J. C., & Gerbing, D. R. (1988). Structural equation modeling in practice: A review and recommended two step approach. *Psychological Bulletin*, 103, 411–423.

Angle, H. L., & Perry, J. (1981). An empirical assessment of organizational commitment and organizational effectiveness. *Administrative Science Quarterly*, 26, 1–13.

Ashmos, D. P., & Duchon, D. (2000). Spirituality

visioning organization development and leadership—Part I. *Leadership and Organization Development Journal*, 21(1), 48–54.

Carole, L. J., & Robert, A. G. (2004). A values framework for measuring the impact of workplace spirituality on organizational performance. *Journal of Business Ethics*, 49(2), 129–138.

Cheung, G. W. (1999). Multifaceted conceptions of self-other ratings disagreement. *Personnel Psychology*, 52(1), 1–36.

Cronbach, L. J. (1991). Methodological study—A personal retrospective. In Brennan, Robert L., 2001, An essay on the history and future of reliability from the perspective of replications. *Journal of Educational Measurement*, 38(4).

Daniel, J. L. (2010). The effect of workplace spirituality on team effectiveness. *Journal of Management Development*, 29(5), 442–456.

Davis, P. J. (1999). Gender differences in autobiographical memory for childhood emotional experiences. *Journal of Personality and Social Psychology*, 76(3), 498–510.

Eaton, S. C. (2003). If you can use them:

Fu, W., & Deshpande, S. P. (2012). Antecedents of organizational commitment in a Chinese construction company. *Journal of Business Ethics*, 109, 301–307.

Gerbing, D. W., Hamilton, J. G., & Freeman, E. B. (1994). A large-scale second-order structural equation model of the influence of management participation on organizational planning benefits. *Journal of Management*, 20(4), 859–885.

Giacalone, R. A., & Jurkiewicz, C. L. (Eds.). (2003). *Handbook of workplace spirituality and organizational performance*. New York: M.E. Sharpe.

Gifford, B. D., Zammuto, R. F., Goodman, E. A., & Hill, K. S. (2002). The relationship between hospital unit culture and nurses' quality of work life. *Journal of Healthcare Management*, 47(1), 13–26.

Haswell, S., Jubb, P., & Wearing, B. (1999). Accounting students and cheating: A comparative study for Australia, South Africa and the UK. *Teaching Business Ethics*, 3(3), 211–239.

role of job satisfaction. *Journal of Managerial Psychology*, 16(8), 594–613.

Lysonski, S., & Gaidis, W. (1991). A cross-cultural comparison of the ethics of business students. *Journal of Business Ethics*, 10(2), 141–150.

Marcoulides, G. A., & Schumacker, R. E. (Eds.). (1996). *Advanced structural equation modeling: Issues and techniques*. Hillsdale: Lawrence Erlbaum Associates, Inc.

Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis of the study of selfconcept: first and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97(3), 562–582.

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299–326.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupation: Extension and test of a three component conceptualization. *Journal of Applied Psychology*, 78(4), 538–551.

commitment of records management personnel in Nigerian private universities. *Records Management Journal*, 19(3), 204.

Qualls, W. J. (1987). Household decision behavior: The impact of husbands and wives sex role orientation. *Journal of Consumer Research*, 14(2), 264–279.

Rashid, M. Z. A., Sambasivan, M., & Johari, J. (2003). The influence of corporate culture and organizational commitment on performance. *Journal of Management Development*, 22(8), 708–728.

Rego, A., & Cunha, M. P. (2008). Workplace spirituality and organizational commitment: An empirical study. *Journal of Organizational Change Management*, 21(1), 53–75.

Rindskopf, D., & Rose, T. (1988). Some theory and applications of confirmatory second-order factor analysis. *Multivariate Behavioral Research*, 23(1), 51–67.

Sahay, A., Sharma, N., & Mehta, K. (2012). Role of affect and cognition in consumer brand relationship: Exploring gender differences. *Journal of Indian Business Research*, 4(1), 36–60.

Frontiers of Health Services Management,
18(4), 3–17.

Ullman, J. B. (2001). Structural equation modeling. In B. G. Tabachnick & L. S. Fidell (Eds.), *Using multivariate statistics* (4th ed., pp. 653–771). New York: Allyn & Bacon.

Whipple, T. W., & Swords, D. S. (1992). Business ethics judgments: A cross-cultural comparison. *Journal of Business Ethics*, 11(9), 671–678.

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Abstract As a common and important construct, numerous studies investigated factors that influence commitment. However, few scholars promoted ethical issues on commitment antecedents. This study investigates moderation effect of gender on the relationship between workplace spirituality and commitment. The result shows that workplace spirituality affects commitment significantly, and males are found to have a stronger effect of workplace spirituality on commitment rather than females. Implications of the findings and suggestions for future research are discussed.

Keywords Workplace spirituality · Commitment · Gender · Ethics

Introduction

As a common and important constructs in behavioral studies, researchers expect the antecedents of commitment provide insights into an employee's commitment. Numerous studies investigate factors that influence commitment. Researchers find individual and organizational differences result in antecedents of commitment. They argue that individual characteristics, organizational culture, and human resource policy in practice are significant to commitment antecedents (Lok and Crawford 2001; Gifford et al. 2002; Rashid et al. 2003; Eaton 2003). Scholars summarize that personal characteristic, work experience, alternative investments, socialization

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experiences, and organizational investment are antecedents of commitment (Meyer et al. 2002). However, other scholars indicate that it is difficult to generalize such findings in different contexts (Lok and Crawford 2001; Rashid et al. 2003). Hence, they suggest researchers to investigate antecedent of commitment in different perspectives such as ethical point of view and individual characteristics such gender, marital status, and education (Fu and Deshpande 2012; Hochwater et al. 2000)

Ethical issues are suggested to be important to commitment. It not only has a direct impact on employee retention, employee turnover, and intent to leave but also influence how employees follow rules and procedures within organization. Scholars find that ethical climate types lead to organizational commitment differently (Fu and Deshpande 2012). They indicate that nationalities have different effects on ethical issues and commitment relationships. For example for Chinese people, for ethical issues on what is best for everyone in the organization, people protect their own interest above all else, and decision for themselves on what is right and wrong is significantly related to commitment (Fu and Deshpande 2012), whereas for people in the USA and Turkey, it is found that what is best for everyone in the organization is related to commitment (Filipova 2011; Erben and Guneser 2008). Accordingly, scholars spend considerable effort to develop and test the models of commitment antecedent related ethics in different society. However, Meyer et al. (1993) grounded commitment antecedents into three basic major forms. Those are emotional attachment and belief, perceived economic value, and ethical reasons of obligation to organization. Therefore, scholars investigate antecedents of commitment based on these criteria. However, Solinger et al. (2008) critique recent conceptualizations of commitment models. They investigate consistencies of both empirical and theoretical approaches of commitment antecedents. They argue that few researchers are able to explain commitment antecedents clearly (Meyer et al. 2002; Rashid et al. 2003; Lok and Crawford 2001). Hence, Solinger et al. (2008) conclude that no consensus has been reached regarding consistent factors that constitute commitment antecedents. Consequently, the result of investigation on commitment antecedents and consequences has various conclusions. Few scholars investigate commitment as a single composite score. Most of them investigate commitment at different dimensions such as normative, continuance, and affective commitment. Koufteros et al. (2009) successfully investigate an advanced method on single composite of multidimensional variables. Hence, scholars are invited to investigate the relationships between a single composite score of commitment.

Ethical point of view on commitment antecedent, i.e., proposed by Rego and Cunha (2008), indicates that workplace spirituality affects commitment. Ethical issues are argued in accordance to workplace spirituality in several bases. Ethical dilemmas are argued to endorse individual moral attachment. The higher application of ethics at work will promote the members to perceive their organizations to be more spiritual (Sheep 2006). It is believed that ethical work climates as a conducive place to develop workplace spirituality. Hence, Sheep (2006) suggests researchers to explore the ethical perspectives to develop the conceptualization and measurement of workplace. Giacalone and Jurkiewicz (2003) indicate that ethical and spiritual perceptions may lead an individual at work. It is argued that workplace spirituality is an element of the organizational culture and has an important effect on motivation, adaptability team effectiveness, and commitment (Daniel 2010; Carole and Robert

2004). However, according to workplace spirituality dimension of Milliman et al. (2003), scholars are argued to lead a weak explanation on the correlation between workplace spirituality dimensions and commitment (Rego and Cunha 2008). Therefore, the theoretical contribution of previous finding seems constrained. A single composite score of workplace spirituality is needed.

Further investigation on different individual background, gender is strongly indicated to bring about commitment differently (Meyers-Levy and Maheswaran 1991; Filipova 2011; Erben and Guneser 2008; Fu and Deshpande 2012). Male and female employees may have different ethical basis related to workplace spirituality and commitment. Females are found to be more expressive than male that in turn affect their attitude and ethical behavior at work such as how they follow rules and procedures within an organization. Female employees seem to protect their own interest above all else stronger than male. They tend to decide for themselves what is right and wrong, and show their emotion stronger than male (Davis 1999; Sahay et al. 2012). It indicates that female is likely to apply opposite behavior related to commitment, and have lower ethical evidence rather than male. Accordingly, the effect of workplace spirituality and commitment will be different for male and female.

Theoretical background and hypotheses

Workplace spirituality

Workplace spirituality seems to be a controversial topic (Rego and Cunha 2008). Ashmos and Duchon (2000) define workplace spirituality as the recognition that employees have an inner life which nourishes and is nourished by meaningful work taking place in the context of a community. However, Giacalone and Jurkiewicz (2003) argue that workplace spirituality is a framework of organizational values evidenced in the culture that promote employees' experience of transcendence through the work process, facilitating their sense of being connected to others in a way that provides feelings of completeness and joy. Rego and Cunha (2008) note that spirituality at work is not about religion or about getting people converted to a specific belief system, but rather based on personal values and philosophy. It is about employees who view themselves as spiritual beings whose souls need nourishment at work, who experience a sense of purpose and meaning in their work, and a sense of connectedness to one another and to their workplace community. Accordingly, different approaches to recognize spirituality at work bring about various models of workplace spirituality.

Based on Ashmos and Duchon (2000) and Milliman et al. (2003), workplace spirituality are indicated into three core dimensions, i.e., purpose in one's work or meaningful work, having a sense of community, and being in alignment with the organization's values and mission. The meaningful work reflects the degree to which people experience a deep sense of meaning and purpose at work. The sense of community is defined as people see themselves as connected to each other and that there was some type of relationship between one's inner self and the inner self of other people. The value alignment measures whether or not individuals experience a strong sense of alignment between their personal values and the organization's

mission and purpose. Accordingly, the dimensions of workplace spirituality are likely to deliver different perspectives of ethical issues at work. They may bring about workers' behavior to choose on what is best for everyone in the organization, protect their own interest above all else, and to decide what is right and wrong at work.

Workplace spirituality is maintained to lead for various outcomes. Scholars indicate that spirituality at work is argued to create an artificial distinction between mind or spirit and body, or material and immaterial. Spirituality is indicated to result in organizations to acknowledge the importance of community as a basis of success (Rego and Cunha 2008). Leaders with strong spirituality at works are argued to demonstrate more effective behavior (Cacioppe 2000; Strack et al. 2002; Fry 2003; Fry et al. 2005). Workplace spirituality is also acknowledged as a way to recapture the trust between employer and employee. Accordingly, Milliman et al. (2003) find that workplace spirituality influences organizational commitment, intentions to leave, intrinsic work satisfaction, job involvement, and organizational-based self-esteem. However, they find that each dimension of workplace spirituality explains dimensions of commitment differently. For example, meaningful work relates to effective commitment, but sense of community and value alignment correlate to normative, continuance, and affective commitment. Scholars argue that studies on workplace spirituality and commitment relationship have largely been noted to be simplistic. It is therefore important that relationships are further examined in related contexts, such as individual characteristics

Workplace spirituality and organizational commitment

Organizational commitment in the fields of Organizational Behavior and Industrial/Organizational Psychology is believed, in a general sense, to be the employee's psychological attachment to the organization. Organizational scientists have developed many nuanced definitions of organizational commitment, and various scales to measure them. For example, Allen and Meyer (2000) define organizational commitment as a psychological state that characterizes an employee's relationship with the organization and reduces the likelihood that he/she will leave it. They characterize commitment into three-component model: affective, continuance, and normative commitment (Allen and Meyer 1990, 1996, 2000). Scholars find that organizational commitment has various effects on a wide range of attitudes and behaviors such as intention to leave, turnover, punctuality, organizational citizenship behaviors, attitudes toward organizational change, and performance (Allen and Meyer 1996, 2000; Meyer and Herscovitch 2001).

According to Milliman et al. (2003), three dimensions of workplace spirituality have different effect on single measurement of commitment. They find that people with alignment value have stronger effect in commitment rather than other dimension of workplace spirituality. However, Rego and Cunha (2008) find that each dimension of workplace spirituality has a different effect on each dimension of commitment. When people experience workplace spirituality for sense of community, they feel affectively attached to their organizations. People with alignment of workplace spirituality will feel more affectively attached to their organizations and more experience a sense of obligation/loyalty towards them. People with sense of contribution at workplace spirituality will feel less instrumentally committed. Based on Milliman et al. (2003), dimension of workplace spirituality is developed for different levels of group. It is

contained of individual, group, and organizational level of interaction. Peoples view the importance of work for themselves, their connectedness among others, and relationship within the organization as their workplace. Hence, integrated workplace should include the entire level of interactions. However, few researchers investigate the relationship on one single composite score of workplace spirituality and commitment. Koufterous et al. (2009) argue that several constructs can be meaningfully conceptualized at higher orders of abstraction as well as single composite score level. In such cases, a higher-order modeling approach would be the most suitable technique that can represent such structures. A higher-order model can be posited and can relate the manifest variables to their respective first-order latent variables which can then be related to their second-order latent variables. Hence, this study brings about the effect of single composite score of workplace spirituality and single composite score of commitment. Hypothesis proposed:

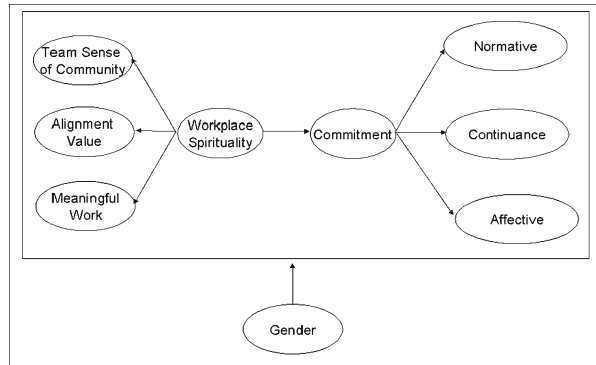
Hypothesis 1 workplace spirituality is positively related to commitment.

A sense of workplace spirituality among people may differ based on their individual characteristics. For example, females are found to be more expressive than males that in turn affect their attitude and behavior at work (Meyers-Levy and Maheswaran 1991). They have different sensitivity, expressive behaviors, and motivational response on the job (Haswell et al. 1999; Lysonski and Gaidis 1991; Whipple and Swords 1992; Bernardi and Gupta 2008). It is found to have different effects on several contexts ranging from interpersonal relationships to household decision making (Qualls 1987; Baghat and Williams 2008). Accordingly, gender has been used in social studies to provide explanations for different effects on outcomes.

Researchers indicate various findings on the relationship between gender and organizational commitment. For example, Popoola (2009) indicates the relationship between gender and organizational commitment. He argues that female more commit to their organizations than male (Angle and Perry 1981; Opayemi 2004). However, others show that gender has no significant effect on organizational commitment (Ahmad and Abu bakar 2003). Ndubisi (2006) indicates male and female employees are different in decision-making processes, such as financial decision making and retirement decisions, preference for work schedule, and absenteeism. They also differ at what is perceived or processed as being "ethical," attributes important in determining self-esteem, emotional expression, and communication or conversational style. It is indicated that females are likely to have a negative effect on commitment (Davis 1999; Sahay et al. 2012).

Researchers indicate that interaction of gender has been investigated in the social psychology literature. However, few researchers investigate the interaction between gender and workplace spirituality on commitment. Female with their core responsibility to their family is likely to have less meaningful work. They with stronger expressiveness rather than male are expected to have a deeper sense of community at work. Females with family status are argued to have less value alignment to their organization. They with the sensitivities are indicated to have a higher concern to their family and carrying their children. Hence, it is plausible promoting gender to investigate different effects of work spirituality on commitment. It is therefore hypothesized as follows (Fig. 1):

Hypothesis 2 gender moderates workplace spirituality and commitment relationship

Fig. 1 Research model

Methods

Samples

Data of this study are collected from banking industries in Indonesia. The collected data from 150 respondents out of 325 completed the survey represents 46.2 % response rate. Average age and work experience for respondents were approximately 30 years old and work for 5 years, respectively. Furthermore, 4 (2.7 %) of the respondents graduated from high school, 18 (12 %) held a diploma, 128 (85.3 %) held a graduate degree, and 70 (46.7 %) of the respondents were male.

Workplace spirituality measurement

Thirteen items were adopted from the questionnaire developed by Milliman et al. (2003). A sample item to measure Workplace Spirituality is “My organization respects my inner life.” A five-point rating scale was used to evaluate Workplace Spirituality. A higher score indicated that Workplace Spirituality was highly present at work.

Commitment measurement

Twelve items were adopted from the questionnaire developed by Meyer et al. (1993). A sample item to measure Commitment is “I feel a strong sense of belonging to company”. A five-point rating scale was used to evaluate Commitment. A higher score indicated that participant represents high commitment at work.

Results

Measure validation

Confirmatory factor analysis

Confirmatory factor analysis (CFA) is adopted to test for the quality and adequacy of the measurement model. In accordance with the two-step procedure suggested by

Anderson and Gerbing (1988), CFA is performed to examine reliability, convergent and discriminant validity of the multi-item construct measures. Initial specification search led to deletion of some of the items in the constructs scale in order to provide acceptable fit. Selected statistics for the final overall model assessment show acceptable fit of the measurement model.

A confirmatory factor analysis using AMOS 7.0 is conducted to test the measurement model. The chi-squared ($df=111$) $\chi^2=287.435$ is significant ($p<0.01$; Bollen 1989). The ratio of chi-square to degree of freedom (df) is 2.59; therefore, measurement model does not exceed 3 (Marsh and Hocevar 1985). Goodness-of-fit of the model is represented by RMR=0.058. RMR values of less than .08 indicate a good fit of the model to the data (Hu and Bentler 1999; Browne and Cudeck 1992; Steiger 1990). The value of CFI=.0.896, IFI=0.898, NFI=.844, and TLI=.856. According to Marcoulides and Schumacker's (1996) standard of fitting, the result of CFA indicates a satisfactory fit for the measurement model (Table 1).

Table 1 Loading factor of construct

| | TCS | AV | MoW | NC | CC | AC |
|------|-------|-------|-------|-------|-------|-------|
| TSC1 | 0.429 | | | | | |
| TSC2 | 0.630 | | | | | |
| TSC3 | 0.872 | | | | | |
| TSC4 | 0.846 | | | | | |
| TSC5 | 0.479 | | | | | |
| AV1 | | 0.651 | | | | |
| AV2 | | 0.530 | | | | |
| AV3 | | 0.510 | | | | |
| AV4 | | 0.410 | | | | |
| AV5 | | 0.723 | | | | |
| MoW1 | | | 0.746 | | | |
| MoW2 | | | 0.868 | | | |
| MoW3 | | | 0.584 | | | |
| NC1 | | | | 0.423 | | |
| NC3 | | | | 0.931 | | |
| CC1 | | | | | 0.849 | |
| CC2 | | | | | 0.577 | |
| CC3 | | | | | 0.657 | |
| CC4 | | | | | 0.812 | |
| AC1 | | | | | | 0.720 |
| AC2 | | | | | | 0.949 |
| AC3 | | | | | | 0.822 |

TSC team sense of community, *AV* alignment value, *MoW* meaningful of work, *NC* normative commitment, *CC* continuance commitment, *AC* affective commitment

This study assesses reliability jointly for all items of a construct by computing the composite reliability and average variance extracted (Steenkamp and van Trijp 1991). Cronbach's value is the most widely used criterion to measure the reliability of the items for each construct (Cronbach 1991). The Cronbach's value of construct is shown in Table 2. Cronbach's α of Normative Commitment=0.743, Continuance Commitment=0.811, Affective Commitment=0.902, Team sense of community=0.832, Alignment value=0.829, Meaningful work=0.831 are all greater than 0.7. Hence, internal consistency of each measurement construct has been achieved.

Convergent validity is determined by the reliability of each construct and the average variance extracted (AVE) of each construct. Variance extracted is not only the average percentage of variation explained among the items but also a summary measure of convergence among a set of items representing a latent construct. Variance extracted is computed as the total of all squared standardized factor loadings divided by the number of items. In other words, it is the average squared factor loading. Fornell and Larcker (1981) suggest that variance extracted of 0.5 or higher than squared multiple correlations is good. AVE values exceed the .50 shown in Table 3. Table 4 shows AVE exceeding correlations in all squared multiple correlations. Therefore, the indicator variables of this study have a good convergent validity.

Discriminant validity describes the degree to which the operationalization is not similar to (diverges from) other operationalizations that it theoretically should not be similar to. A successful evaluation of discriminant validity shows that a test of a concept is not highly correlated with other tests designed to measure theoretically different concepts. It is possible to calculate the extent of which the two scales overlap by using the following formula where r_{xy} is correlation between x and y , r_{xx} is the reliability of x , and r_{yy} is the reliability of y :

$$\frac{r_{xy}}{\sqrt{r_{xx} \cdot r_{yy}}}$$

A result greater than .85, however, tells us that the two constructs overlap greatly, and they are likely measuring the same thing. Therefore, the results shown in Table 4

Table 2 Correlation and Cronbach α

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---|
| 1. Team sense of community | .832 | | | | | | | |
| 2. Alignment value | .599 ^a | .829 | | | | | | |
| 3. Meaningful work | .365 ^a | .543 ^a | .831 | | | | | |
| 4. Workplace spirituality | .772 ^a | .884 ^a | .793 ^a | — | | | | |
| 5. Normative commitment | .361 ^a | .356 ^a | .356 ^a | .436 ^a | .743 | | | |
| 6. Continuance commitment | .240 ^a | .338 ^a | .323 ^a | .371 ^a | .467 ^a | .811 | | |
| 7. Affective commitment | .351 ^a | .511 ^a | .421 ^a | .529 ^a | .406 ^a | .240 ^a | .902 | |
| 8. Commitment | .412 ^a | .513 ^a | .473 ^a | .573 ^a | .843 ^a | .764 ^a | .673 ^a | — |

^a Correlation is significant at the 0.01 level (two-tailed)

Table 3 Convergent validity and reliability

| | | Estimate | <i>T</i> value | SMC | α | AVE |
|-------------------------|------|----------|----------------|-------|----------|-------|
| Team sense of community | TSC4 | 0.890 | 9.461 | 0.782 | 0.832 | 0.655 |
| | TSC3 | 0.854 | 9.129 | 0.736 | | |
| | TSC2 | 0.679 | | 0.446 | | |
| Alignment of value | AV5 | 0.692 | | 0.489 | 0.829 | 0.560 |
| | AV4 | 0.808 | 10.86 | 0.645 | | |
| | AV3 | 0.815 | 11.08 | 0.662 | | |
| | AV2 | 0.660 | | 0.444 | | |
| Meaningful of work | MoW3 | 0.678 | 8.82 | 0.469 | 0.831 | 0.633 |
| | MoW2 | 0.924 | 10.73 | 0.833 | | |
| | MoW1 | 0.777 | | 0.597 | | |
| Normative Commitment | NC3 | 0.626 | | 0.423 | 0.743 | 0.630 |
| | NC1 | 0.947 | 6.639 | 0.837 | | |
| Continuance commitment | CC4 | 0.772 | 9.865 | 0.600 | 0.811 | 0.595 |
| | CC2 | 0.700 | 8.799 | 0.488 | | |
| | CC1 | 0.833 | | 0.696 | | |
| Affective commitment | AC3 | 0.879 | 12.17 | 0.756 | 0.902 | 0.776 |
| | AC2 | 1.000 | 13.28 | 1.010 | | |
| | AC1 | 0.754 | | 0.563 | | |

demonstrate adequate unidimensionality, convergent validity, reliability, and discriminant validity.

Competing model and second-order issues

The used model is found from the competing modeling of the second-order construct. This study tests the model of Commitment and Workplace Spirituality. Based on Koufterous et al. (2009), the first model of Workplace Spirituality specifies that all ten items are each reflective of one latent variable. If all items are bundled

Table 4 Average variance extracted, square correlation, and discriminate validity

| | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1. Team sense of community | 0.655 | 0.358 | 0.133 | 0.130 | 0.058 | 0.123 |
| 2. Alignment of value | 0.721 | 0.560 | 0.294 | 0.127 | 0.114 | 0.261 |
| 3. Meaningful of work | 0.439 | 0.654 | 0.633 | 0.127 | 0.104 | 0.178 |
| 4. Normative commitment | 0.459 | 0.454 | 0.453 | 0.630 | 0.218 | 0.164 |
| 5. Continuance commitment | 0.292 | 0.412 | 0.393 | 0.601 | 0.595 | 0.057 |
| 6. Affective commitment | 0.406 | 0.591 | 0.487 | 0.495 | 0.280 | 0.776 |

AVE value are shown in bold

Discriminate validity are shown on the left side AVE value

together, the explication of the resultant construct is incomplete (Gerbing et al. 1994) and the contribution of various content domains to the final scale score will not be known. Hence, the test indicates the value of chi-square per degree of freedom and other fit indices is poor model fit. The second model posits uncorrelated latent variables that are related to their respective observed variables. In view of the strong correlations between the latent variables, an orthogonal specification for the relationships between latent variables would be expected to produce poor model fit. Indeed, they argue that such is in fact the case where all fit indices here failed to pass muster. In situations where first-order factors are poorly correlated, the second-order specification could be appropriate.

Model 3 was similar to model 2 except for the fact that the latent variables are free to correlate. The model fit is quite acceptable as all fit indices met respective criteria. However, Koufterous et al. (2009) consider that model 3 would not resolve the issue of discriminant validity. The first-order factors are highly correlated, and multicollinearity emerges. Model 4 presents a second-order factor (i.e., workplace spirituality and commitment) that is related to first-order factors/facets that in turn are related to the respective observed variables. Within the context of higher-order modeling, the first-ordered factors are conceptualized as dependent variables. This implies that their variances and covariance are not estimable within the model. Second-order model can be posited and can relate the manifest variables to their respective first-order latent variables which can then be related to their second-order latent variable (Koufteros et al. 2009). The contribution of each dimension to a higher-level construct can be assessed and delineated as compared to bundling all items together in a single composite score. However, Koufterous et al. (2009) argue that a model that includes a second-order model structure can never produce a model fit that is better fit indices than a model that specifies only first order as model 3. However, a second-order model that rivals the performance of a first-order correlated model can be an attractive alternative. The issues of deficiency, such as discriminant validity, issues of multicollinearity applied at the model 3, need second-order models from a conceptual point of view. Hence, they suggest that model 4 appears to be the most prudent choice. The second-order model is chosen if various fit indices are plausible such as chi-square per degree of freedom (df), the norm fit index (NFI), the non-norm fit index (NNFI), the comparative fit index (CFI), and the standardized root mean square residual. Rindskopf and Rose (1988) suggest that at least each first order has two measurements. Few indicators are found that the model of fit of commitment and workplace spirituality do not meet the requirements such as chi-square/ df and SRMR. Yet the values are close to the standard model fits (Koufteros et al. 2009; Jackson et al. 2009). Hence, the model then may tolerate for further hypothesis testing (Table 5).

Hypothesis testing

In order to test the antecedent of effect of workplace spirituality on commitment, correlation and regression analysis is used. Hypothesis 1 is that conditions of workplace spirituality are positively related to commitment. Table 2 showed that Team Sense of Community is positively related to commitment ($r_{\text{normative}}=.361^{**}$; $r_{\text{continuance}}=.240^{**}$; $r_{\text{Affective}}=.351^{**}$, $p<.01$), Alignment value is positively related to commitment ($r_{\text{normative}}=.356^{**}$; $r_{\text{continuance}}=.338^{**}$; $r_{\text{Affective}}=.511^{**}$, $p<.01$),

Table 5 Alternative measurement model structures

| Goodness of fit indices for alternative models of factor structure | | Model 1 | Model 2 | Model 3 | Model 4 |
|--|---|------------------------|---------------------------------------|-------------------------------------|---|
| | | One first-order factor | Four first-order factors—uncorrelated | Four first-order factors—correlated | Four first-order factors—one second-order factors |
| Workplace spirituality | | | | | |
| Chi-square | | 314.24 | 209.96 | 113.03 | 117.9 |
| <i>Df</i> | | 35 | 35 | 32 | 32 |
| Chi-square/ <i>df</i> | <2 or 3 (Kline 1998; Ullman 2001). | 8.98 | 6.00 | 3.53 | 3.68 |
| Normed-fit index (NFI) | >.90 (Byrne 1998) or >.95 (Schumacker and Lomax 2004) | .77 | .83 | .91 | 0.90 |
| Normed-fit index (NNFI) | >.90 (Byrne 1998) or >.95 (Schumacker and Lomax 2004) | .73 | .81 | .90 | .89 |
| Comparative fit index (CFI) | >.93 (Byrne 1998) | .79 | .85 | .93 | .92 |
| Standardized root mean square residual (RMR) | <.08 (Browne and Cudeck 1992) <.05 (Steiger 1990) | .12 | .29 | .083 | .13 |
| Commitment | | | | | |
| Chi-square | | 327.89 | 121.27 | 59.23 | 59.23 |
| <i>Df</i> | | 20 | 20 | 17 | 17 |
| Chi-square/ <i>df</i> | <2 or 3 (Kline 1998; Ullman 2001). | 16.39 | 6.06 | 3.48 | 3.48 |
| Normed-fit index (NFI) | >.90 (Byrne 1998) or >.95 (Schumacker and Lomax 2004) | .61 | .84 | .91 | .91 |
| Normed-fit index (NNFI) | >.90 (Byrne 1998) or >.95 (Schumacker and Lomax 2004) | .48 | .81 | .89 | .89 |
| Comparative fit index (CFI) | >.93 (Byrne 1998) | .63 | .86 | .93 | .93 |
| Standardized root mean square residual (RMR) | <.08 (Browne and Cudeck 1992) <.05 (Steiger 1990) | .21 | .23 | .081 | .081 |

Meaningful work is positively related to commitment ($r_{\text{normative}}=.356^{**}$; $r_{\text{continuance}}=.323^{**}$; $r_{\text{Affective}}=.421^{**}$, $p<.01$). Workplace Spirituality is positively related to commitment ($r=.573^{**}$, $p<.01$).

A structural analysis shows that the chi-squared ($df=119$) $\chi^2=318.502$ is significant ($p<0.01$; Bollen 1989). The ratio of chi-square to degree of freedom (df) is 2.676. Goodness-of-fit of the model is represented by $RMR=0.062$. RMR values of less than .08 indicate a good fit of the model to the data (Hu and Bentler 1999; Browne and Cudeck 1992; Steiger 1990). The value of $CFI=.0.882$, $IFI=0.885$, $TLI=.849$, and goodness-of-fit index (GFI)= 0.822 . According to Marcoulides and Schumacker's (1996) standard of fitting, the result of structural model of fit indicates a satisfactory fit for the measurement model. The standardized regression weights on the default model second ordered found that workplace spirituality positively influences commitment ($\gamma=.77$, $p<.01$). Hence, the results revealed that hypothesis 1 is supported (Fig. 2).

Hierarchical moderated regression analysis is conducted to test the moderation effect of employee's gender. Table 6 presents the results of estimation of the main effect and the moderating effects of employee's gender. The results indicate that the moderating effect of employee's gender is significant. Table 6 shows gender moderating effects on the relationship between workplace spirituality and commitment. The findings support hypotheses 2.

Figure 3 provides a graphical representation of the moderating effects of gender. The graph shows that when workplace spirituality is low, female employees demonstrate higher commitment compared with male employees. When workplace spirituality is high, male employees demonstrate higher commitment compared with their counterpart.

Conclusion

Discussion

Extending approach of workplace spirituality and commitment investigates the single score of workplace spirituality related to commitment. Limitation of fit indices value indicates a shortcoming evidence of manifestation the first-ordered latent variable. However, it is suggested that workplace spirituality and commitment are viewed as

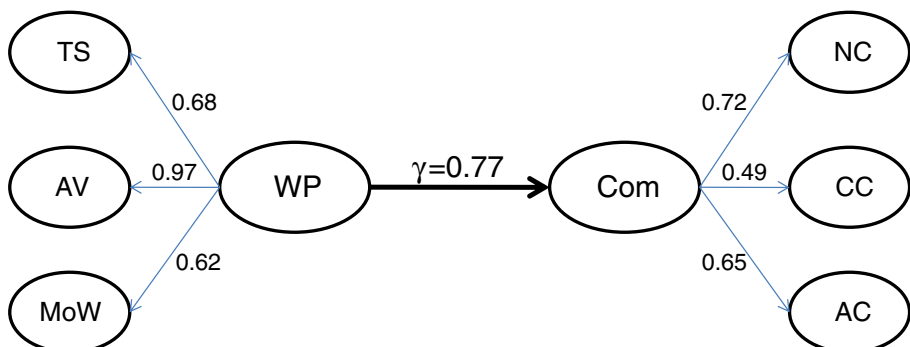


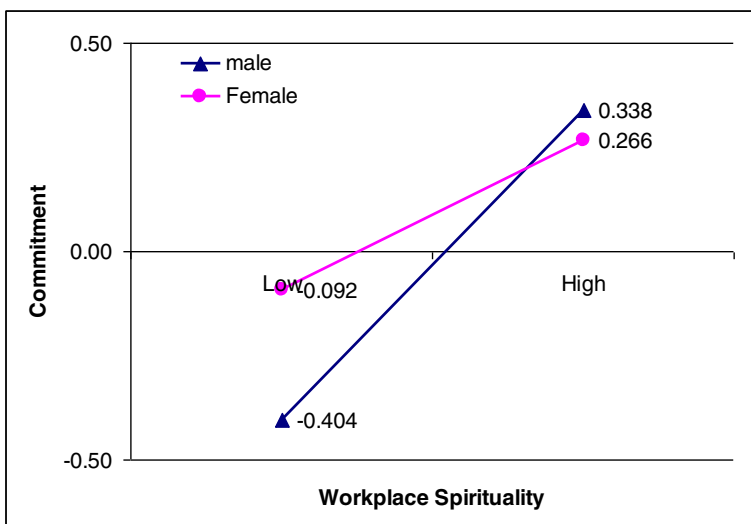
Fig. 2 Structural model effect of workplace spirituality on commitment

Table 6 Moderation of gender on workplace spirituality–commitment correlation

| | Commitment | | |
|-----------------------------|-----------------------|----------|----------|
| | β in regression | | |
| | (<i>r</i>) | Step 1 | Step 2 |
| Workplace spirituality (WS) | .573** | .573** | .450** |
| Gender | -.146 | -.021 | .010 |
| WS * Gender | | | .192* |
| R^2 | | .329 | .351 |
| F | | 35.994** | 26.296** |
| ΔR^2 | | | .337 |
| F change | | | 4.966** |

* $p < .05$; ** $p < .01$

second-orders' perspective. Hence, the workplace spirituality may represent the model of Milliman et al. (2003). Table 2 shows that among first- and second-ordered constructs of workplace spirituality and commitment are highly correlated. In the level of their dimensions, meaningful work, sense of community, and value alignment of workplace spirituality are significantly related to normative, continuance, and affective commitment. This means that the degree to which people experience a deep sense of meaning and purpose at work is positively related to the employee's positive emotional attachment to the organization, employees remain a member of the organization, and their feelings of obligation. People see themselves as connected to each other, and that there is some type of relationship between one's inner self and the inner self of other people significantly related to the employee's positive emotional attachment to the organization, employees remain a member of the organization, and their feelings of obligation. Individuals experience a strong sense of alignment between their personal

**Fig. 3** Moderation of gender on workplace spirituality–commitment correlation

values and the organization's mission and purpose are positively related to the employee's positive emotional attachment to the organization, employees remain a member of the organization, and their feelings of obligation in a significant way.

The moderation effect of gender consistently provides evidence that organizations consist of relations between people and can never be gender neutral (Acker 1990). Male and female employees have different sensitivity, expressive behaviors, motivational response on the job, and decision-making processes. The effect of workplace spirituality on commitment is stronger for male rather than female. When female employees perceive workplace spirituality less applied at work, they will express commitment better than male employees. However, male employees are likely to demonstrate higher commitment compared with their counterpart, if they perceive workplace spirituality is strongly applied at work. It is indicated that with their expressive behavior, females tend to show up their attitude on protecting their own interest above all else, tend to decide for themselves on what is right and wrong, and show their emotion. It may be endorsed by their core responsibility to their family to carrying their children. Hence, higher spirituality climate at work encourages female employees to strengthen their awareness of their family such as concern to children as well as lower their commitment to organization, whereas males at work likely perceive workplace spirituality to increase their commitment to organization better than females. Males are able to isolate their attention to their family at work that in turn focuses to follow the rule in order to increase their work outcomes.

Implications

The current study expands previous perspectives on workplace spirituality and commitment. Compared to previous investigations, the validation process of this study included the test of the quality and adequacy of the measurement model suggested by Anderson and Gerbing (1988) to examine reliability, convergent and discriminant validity of the multi-item construct measures. The procedure of competing modeling of Koufterous et al. (2009) is used to resolve the issues of discriminant validity and multicollinearity, variance and covariance estimable of the model, and bundle items measured together in a single composite score. Accordingly, scholars are suggested to test second-ordered measurements in advance. These procedures are needed to avoid validation bias of measurements.

The perspective of ethic on commitment is related to individual differences such as gender. Male and female at work potentially behave differently heading to their workplace issues. Accordingly, leaders have to make more attention to develop convenient work climates, such as spirituality, to look after their subordinate commitment. Different sensitivities of male and female at spirituality workplace may change their commitment more effectively. Hence, female employees likely need particular approaches to increase the effect of spirituality at work on commitment such as family conflict issues and perception of equity.

Limitations and future research direction

Notwithstanding these contributions, this study has its limitations. This study allows us to determine employee perceptions of workplace spirituality and commitment

relationship. However, it is an open question as to whether these results can be applied on different broader coverage. Although gender is found to express the relationship between workplace spirituality to commitment, other psychological attachment variables can be used to explain these relationships.

Additional longitudinal study on workplace spirituality change is needed to compare this finding. It is also useful to explain the prediction of commitment changes and conclusion. Measurement equivalence is now more than ever a general concern in organizational studies. It is not only examined in cross-cultural studies but also in comparisons of participants with different levels of academic achievement, from different industries, of different sexes, and in experimental versus control groups. Hence, examining the equivalence approach as the extended procedure (Cheung 1999) solves the standardization problem by performing a systematic comparison of all pairs of factor loadings across groups.

The subconditions of Workplace Spirituality on profit versus non-profit organizations, private versus public sectors, and home versus host country of strategic perspectives, different occupation and task, different country and culture, Hofstadter's dimensions, or workers' demographic backgrounds, different values and characteristics of workers should become future attractive investigations. It might be expected to relate to commitment differently.

References

- Acker, J. (1990). Hierarchies, jobs, bodies: a theory of gendered organizations. *Gender and Society*, 4, 139–158.
- Ahmad, K. Z., & Abu bakar, R. (2003). The association between training and organizational commitment among white workers in Malaysia. *International Journal of Training and Development*, 7(3), 166–185.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1–18.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: an examination of construct validity. *Journal of Vocational Behavior*, 49(3), 252–276.
- Allen, N. J., & Meyer, J. P. (2000). Construct validation in organizational behavior research: the case of organizational commitment. In R. D. Goffin & E. Helmes (Eds.), *Problems and solutions in human assessment: Honoring Douglas N Jackson at Seventy* (pp. 285–314). Norwell: Kluwer.
- Anderson, J. C., & Gerbing, D. R. (1988). Structural equation modeling in practice: A review and recommended two step approach. *Psychological Bulletin*, 103, 411–423.
- Angle, H. L., & Perry, J. (1981). An empirical assessment of organizational commitment and organizational effectiveness. *Administrative Science Quarterly*, 26, 1–13.
- Ashmos, D. P., & Duchon, D. (2000). Spirituality at work: A conceptualization and measure. *Journal of Management Inquiry*, 9(2), 134–145.
- Baghat, P. S., & Williams, J. D. (2008). Understanding gender differences in professional service relationships. *Journal of Consumer Marketing*, 25(1), 16–22.
- Bernardi, R. A., & Guptil, S. T. (2008). Social desirability response bias, gender, and factors influencing organizational commitment: An international study. *Journal of Business Ethics*, 81(4), 797–809.
- Bollen, K. A. (1989). *Structural equations with latent variables*, Wiley series in probability and mathematical statistics. *Applied probability and statistics section*. Oxford: Wiley.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods Research*, 21(2), 230–258.
- Byrne, B. M. (1998). *Structural equation modeling: basic concepts, application, and programming*. Mahwah: Lawrence Earlbaum Associated, Inc.
- Cacioppe, R. (2000). Creating spirit at work: Re-visioning organization development and leadership—Part I. *Leadership and Organization Development Journal*, 21(1), 48–54.

- Carole, L. J., & Robert, A. G. (2004). A values framework for measuring the impact of workplace spirituality on organizational performance. *Journal of Business Ethics*, 49(2), 129–138.
- Cheung, G. W. (1999). Multifaceted conceptions of self-other ratings disagreement. *Personnel Psychology*, 52(1), 1–36.
- Cronbach, L. J. (1991). Methodological study—A personal retrospective. In Brennan, Robert L., 2001, An essay on the history and future of reliability from the perspective of replications. *Journal of Educational Measurement*, 38(4).
- Daniel, J. L. (2010). The effect of workplace spirituality on team effectiveness. *Journal of Management Development*, 29(5), 442–456.
- Davis, P. J. (1999). Gender differences in autobiographical memory for childhood emotional experiences. *Journal of Personality and Social Psychology*, 76(3), 498–510.
- Eaton, S. C. (2003). If you can use them: Flexibility policies, organizational commitment, and perceived performance. *Industrial Relations*, 42(2), 145–167.
- Erben, G. S., & Guneser, A. B. (2008). The relationship between paternalistic leadership and organizational commitment: Investigating the role. *Journal of Business Ethics*, 82, 955–968.
- Filipova, A. A. (2011). Relationships among ethical climates, perceived organizational support, and intent-to-leave for licensed nurses in skilled nursing facilities. *Journal of Applied Gerontology*, 30(1), 44–66.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Fry, L. W. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, 14(6), 693–727.
- Fry, L. W., Vitucci, S., & Cedillo, M. (2005). Spiritual leadership and army transformation: Theory, measurement, and establishing a baseline. *The Leadership Quarterly*, 16(5), 835–862.
- Fu, W., & Deshpande, S. P. (2012). Antecedents of organizational commitment in a Chinese construction company. *Journal of Business Ethics*, 109, 301–307.
- Gerbing, D. W., Hamilton, J. G., & Freeman, E. B. (1994). A large-scale second-order structural equation model of the influence of management participation on organizational planning benefits. *Journal of Management*, 20(4), 859–885.
- Giacalone, R. A., & Jurkiewicz, C. L. (Eds.). (2003). *Handbook of workplace spirituality and organizational performance*. New York: M.E. Sharpe.
- Gifford, B. D., Zammuto, R. F., Goodman, E. A., & Hill, K. S. (2002). The relationship between hospital unit culture and nurses' quality of work life. *Journal of Healthcare Management*, 47(1), 13–26.
- Haswell, S., Jubb, P., & Wearing, B. (1999). Accounting students and cheating: A comparative study for Australia, South Africa and the UK. *Teaching Business Ethics*, 3(3), 211–239.
- Hochwater, W. A., Pearson, A. W., Ferris, G. R., Perrewe, P. L., & Ralston, D. A. (2000). A reexamination of Schriesheim and Hinkin's (1990) measure of upward influence. *Educational and Psychological Measurement*, 60(5), 755–771.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55.
- Jackson, D. L., Gillaspy, J. A., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods*, 14(1), 6–23.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford.
- Koufteros, X., Babbar, S., & Kaighobadi, M. (2009). A paradigm for examining second-order factor models employing structural equation modeling. *International Journal Production Economics*, 120, 633–652.
- Lok, P., & Crawford, J. (2001). Antecedents of organizational commitment and the mediating role of job satisfaction. *Journal of Managerial Psychology*, 16(8), 594–613.
- Lyonski, S., & Gaidis, W. (1991). A cross-cultural comparison of the ethics of business students. *Journal of Business Ethics*, 10(2), 141–150.
- Marcoulides, G. A., & Schumacker, R. E. (Eds.). (1996). *Advanced structural equation modeling: Issues and techniques*. Hillsdale: Lawrence Erlbaum Associates, Inc.
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis of the study of self-concept: first and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97(3), 562–582.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299–326.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupation: Extension and test of a three component conceptualization. *Journal of Applied Psychology*, 78(4), 538–551.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnysky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20–52.

- Meyers-Levy, J., & Maheswaran, D. (1991). Exploring differences in males and females' processing strategies. *Journal of Consumer Research*, 18(1), 63–70.
- Milliman, J., Czaplewski, A. J., & Ferguson, J. (2003). Workplace spirituality and employee work attitudes: An exploratory empirical assessment. *Journal of Organizational Change Management*, 16(4), 426–447.
- Ndubisi, N. O. (2006). Effect of gender on customer loyalty: A relationship marketing approach. *Marketing Intelligence & Planning Bradford*, 24(1), 48. 14 pgs.
- Opayemi, A. S. (2004). Personal attributes and organizational commitment among Nigerian police officers. *African Journal for the Psychological Study of Social Issues*, 7(2), 251–263.
- Popoola, S. O. (2009). Organizational commitment of records management personnel in Nigerian private universities. *Records Management Journal*, 19(3), 204.
- Qualls, W. J. (1987). Household decision behavior: The impact of husbands and wives sex role orientation. *Journal of Consumer Research*, 14(2), 264–279.
- Rashid, M. Z. A., Sambasivan, M., & Johari, J. (2003). The influence of corporate culture and organizational commitment on performance. *Journal of Management Development*, 22(8), 708–728.
- Rego, A., & Cunha, M. P. (2008). Workplace spirituality and organizational commitment: An empirical study. *Journal of Organizational Change Management*, 21(1), 53–75.
- Rindskopf, D., & Rose, T. (1988). Some theory and applications of confirmatory second-order factor analysis. *Multivariate Behavioral Research*, 23(1), 51–67.
- Sahay, A., Sharma, N., & Mehta, K. (2012). Role of affect and cognition in consumer brand relationship: Exploring gender differences. *Journal of Indian Business Research*, 4(1), 36–60.
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling* (2nd ed.). Mahwah: Lawrence Erlbaum.
- Sheep, M. L. (2006). Nurturing the whole person: The ethics of workplace spirituality in a society of organizations. *Journal of Business Ethics*, 66(4), 357–375.
- Solinger, O. N., Olffen, W. R., & Robert, A. (2008). Beyond the three-component model of organizational commitment. *Journal of Applied Psychology*, 93(1), 70–83.
- Steenkamp, E. M., & van Trijp, H. (1991). The use of LISREL in validating marketing constructs. *International Journal of Research Marketing*, 8(4), 283–299.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25(2), 173–180.
- Strack, G., Fottler, M. D., Wheatley, M. J., & Sodomka, P. (2002). Spirituality and effective leadership in healthcare: Is there a combination? *Frontiers of Health Services Management*, 18(4), 3–17.
- Ullman, J. B. (2001). Structural equation modeling. In B. G. Tabachnick & L. S. Fidell (Eds.), *Using multivariate statistics* (4th ed., pp. 653–771). New York: Allyn & Bacon.
- Whipple, T. W., & Swords, D. S. (1992). Business ethics judgments: A cross-cultural comparison. *Journal of Business Ethics*, 11(9), 671–678.