DOWNSIZING AND SURVIVORS REACTIONS: A MODEL OF ANTECEDENTS AND OUTCOMES OF PSYCHOLOGICAL CONTRACT VIOLATION

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Abstract

The study tested a model of antecedents and consequences of psychological contract violation (PCV) caused by downsizing experience. A longitudinal survey method was conducted on the survivors from a large organization going through downsizing. The proposed model where the perception of justice and negative affectivity predict PCV, which in turn predicts the attitudinal and behavioural outcomes was tested with structural equation modeling. The results suggested that both the perception of justice and negative affectivity significantly predict PCV, and PCV in turn significantly predicts commitment (a direct effect), OCB (an indirect effect), and turnover intention (both direct and indirect effects). The findings suggest the utility of psychological contact framework in explaining survivor reactions to downsizing.

INTRODUCTION

Despite increasing empirical evidence suggesting that it may not be effective in achieving the intended benefits, as a strategy to reduce cost and increase performance, downsizing has spread and indeed has now become a world phenomenon affecting not only developed countries, but also the rest of the world. Empirically, research on the effect of downsizing on survivors suggests a number of negative consequences including low morale, high job insecurity, survivor syndrome, low organizational commitment and job satisfaction, high absenteeism and intention to leave the organization (e.g., Lee & Corbett, 2006; Brennan & Skarlicki, 2004; Kernan & Hanges, 2002; Robinson & Morrison, 1995; Guzzo, Noonan & Elron, 1994). However, these studies, while contributing to the literature and our understanding, have also been criticised.

Methodologically, a number of longitudinal studies examining survivors’ reactions to downsizing have emerged in the recent years (e.g., Armstrong-Stassen, 1998, 2002; Davy, Kinicki & Scheck, 1991; Kernan & Hanges, 2002). However, the main concern with these studies is lack of attempt to examine the issue in a more integrative manner i.e., the theoretical antecedents and outcomes of downsizing reactions together into a single testable model (see Kernan & Hanges, 2002; Davy et al., 1991). Secondly, though researchers have documented the direct effect of downsizing on employee attitudes and behaviours, the processes through which downsizing influences those attitudes and behaviours has received little
attention. Much research at the individual level has, however, been driven by a narrower theoretical framework (Sahdev, 2003). Excepting some recent study from a socio-emotive perspective (Lee & Peccei, 2006) the majority of research focuses primarily on processes such as perceived justice (e.g., Brockner, Tyler & Cooper-Schneider, 1992; Brockner, Konovsky, Cooper-Schneider, Folger, Martin, & Bies, 1994), and equity theory (Brockner, Greenberg, Brockner, Bortz, Davy & Carter, 1986). Drawing on these criticisms, we have conducted a study that employs a longitudinal study design, and used an alternative theory - psychological contract theory - as a framework to explain those attitudinal and behavioural outcomes of downsizing on survivors. We propose that procedural justice and negative affectivity disposition result in psychological contract violation, which in turn affects survivors’ commitment, organizational citizenship behaviours and turnover intention.

(Insert figure 1 here)

THEORETICAL MODEL

Perception of justice plays an important role in predicting survivors’ responses to downsizing given that much may depend upon how employees perceive management’s handling of the process. The literature has established the importance of perceptions of justice during downsizing (Brockner & Greenberg, 1990; Kernan & Hanges, 2002; Brenann & Skarlicki, 2004). Survivors expect fair procedure and fair treatment from the organization (Brockner & Greenberg, 1990). When this expectation of fairness is not met, survivors perceive the organization as not fulfilling their obligation (i.e., Rousseau, 1995). In effect, the perceived unfairness leads to a negative affective reaction of PCV, which stems from their perception of not receiving what is expected from the organization. This feeling of violation will next result in the negative attitudes and behaviours of survivors.

Hypothesis 1: Perceived justice will be negatively related to PCV.

Kiefer (2005) has argued that research now needs to untangle emotions from perceptions, in part because several constructs in downsizing or psychological contract research are emotionally-laden (such as feelings of insecurity, unfairness and resistance). In reality such feelings are separate to emotions. They are better seen as antecedents to negative emotions, with withdrawal intentions and perceptions of
trust seen as outcomes mediated by felt emotions. Kiefer (2005) argued that future research should examine contextual and individual difference variables, such as trait affectivity. This study addresses this need.

Negative affectivity is defined as “a mood dispositional dimension reflecting pervasive individual differences in the experience of negative emotion and self-concept” (Watson and Clark, 1984 p. 483). The high levels of negative affectivity are linked with a type of cognitive bias through which people approach and interpret their life experiences, and this affective inclination and cognitive style may in turn affect people’s experience and evaluation of their jobs (Levin and Stokes, 1989). Treating negative affectivity as an antecedent variable is consistent with George’s (1992) contention that positive affectivity and negative affectivity are essential as indirect predictors of behaviours since they predispose individuals toward affective states, which then (as a function of both disposition and situation) directly determine the behaviours. Morrison and Robinson (1997) argued that whereas perception of breach reflects a cognitive assessment of how well one’s psychological contract has been fulfilled, the feeling of violation reflects an emotional response to that assessment. They suggested further that an affect-related trait is more likely to influence an individual’s emotional (violation) response rather than to influence perceived breach, which is more cognitive in nature. Empirically, the indirect effect of negative affectivity on work outcomes has been primarily examined in relation to job satisfaction (Connolly & Viswesvaran, 2000; Levin & Stokes, 1989). In relation to OCB, Organ (1990) suggested that disposition and OCB may be related; however, empirically, disposition has not been found to explain a significant part of variance in OCB (Organ & Ryan, 1995). Nonetheless, the significance of the mediating pathway of negative affectivity is supported in the relationship between neuroticism and OCB which is assessed by supervisor rating (Smith, Organ & Near, 1983). Less attention was given to the effect of negative affectivity on commitment and turnover intention; however, research has found support for significant relationship between negative affectivity and the two outcome variables (Cropanzano, James & Konovsky, 1993).

**Hypothesis 2:** Negative affectivity is positively related to PCV
Turnley & Feldman (1999), in their discussion of a discrepancy model of psychological contract violations, suggested the inclusion of in role performance as well as OCB in any future attempts to examine the outcome of PCV. They argue that, in most of the cases, employees may not always feel that they are free to act consistently with their attitude. In facing PCV, for example, they are usually not willing to put their jobs at risk by decreasing their in-role performance. However, employees are more in control over the extent to which they engage in extra role behaviours for the sake of their organizations (Park & Kidder, 1994). Compared to the in-role behaviour, those extra-role behaviours are less closely monitored by the organization. Thus, when psychological contracts are violated, the decline in the level of OCB shown by employees can be expected (Turnley & Feldman, 1999). Empirically, PCV was found to be negatively associated with employees’ perceptions of the amount of loyalty they owe to their organization, and OCB is suggested as the first casualty of the violation (Parks and Kidder, 1994). Consistent with this view, findings from empirical studies (i.e., Robinson & Morrison, 1995; Turnley & Feldman, 2000) concluded that employees are less likely to engage in OCB when they believe that their employer has not fulfilled the terms of the employment contract.

Hypothesis 3: PCV is negatively related to survivors’ OCB

Meyer and Allen (1997) suggest that affective commitment is the most desirable form of commitment and the one that organizations are more likely to want to instil in their employees, one reason being that people committed due to emotional attachment (affective) are potentially seen as more beneficial to the company than those committed due to perceived cost of leaving. Knudsen and colleagues (2002) note that even though findings from qualitative studies have indicated that survivors of downsizing report greater work stress as well as lower levels of organizational commitment (e.g., Kets de Vries & Balazs, 1997), only a few quantitative studies have investigated the relationship between downsizing experience and organizational commitment. Social exchange theory proposes that the parties in any given relationship want balance in the relationship (Blau, 1964), while the norm of reciprocity posits that positive beneficial action directed at employees by the organization creates a motivation for employees to reciprocate in positive ways through their attitudes and/or behaviours (Gouldner, 1960). In the case of
downsizing, organizations are seen as not fulfilling their obligation in terms of providing job security. Survivors are left with a feeling of violation. In order to balance the relationship and to reciprocate the organization’s failure to fulfil the ongoing commitment, they are likely to reduce their level of commitment to the organization.

Hypothesis 4: PCV is negatively related to survivors’ organizational commitment

Turnover intention, which refers to individuals’ own estimated probability that they will permanently leave the organization at some point in near future (Mowday, Porter & Steers, 1982). Employee turnover can be problematic to organizations. Trevor et al., (1997) argued that turnover of top-performing managers tends to result in the loss of future general managers. The retention of these managers is very important because the cost would be significantly lower due to less hiring and training activities. Similarly, in a downsizing context, high rates of survivor turnover can be costly for organizations and can lead to post-downsizing decreases in the productivity and performance of the organization (Brennan & Skarlicki, 2004). Research has found support for a positive relationship between psychological contract breach, violation and intention to leave (e.g., Robinson & Rousseau, 1994; Guzzo et al., 1994; Turnley & Feldman, 2000; Tekleab, Takeuchi & Taylor, 2005). A study by Turnley and Feldman (2000), for example, found that, PCVs are positively and significantly related to employees’ effort to find other employment (intentions to quit). They speculate that, rather than a neglect of job duties and responsibilities, PCVs are likely to increase intention to quit because employees are not likely to suffer negative repercussions for trying to find another job whilst they are if they intentionally neglect their required job duties.

Hypothesis 5: PCV is positively related to survivors’ turnover intention

In addition to examining the direct impact of PCV on affective commitment, the study also examines the role of commitment as a mediator in the relationship between PCV and turnover intentions, and OCB. In many models with multiple dependent variables, it is likely that the variables will be intercorrelated. While the objective of the present study is to examine the relationships between antecedents and the outcomes of PCV, the links between attitudinal and behavioural outcomes need to be considered,
both for theoretical and statistical modelling reasons. Thus, paths have been placed between commitment and OCB, and between commitment and turnover intention. The model posits that in addition to the direct effects of PCV on OCB, and turnover intention, PCV also indirectly affects the two outcome variables through commitment. To date, research has provided both theoretical and empirical support for the effects of commitment on those OCBs and turnover intention (e.g., Moormon, Nierhoff & Organ, 1993; Wasti, 2003; Allen & Meyer; 1996).

Hypothesis 6: Organizational commitment mediates the relationship between PCV and OCB, and turnover intention

RESEARCH METHODS

Sample and Measures

The sample for the present study is survivors from a large organization in Malaysia, which was going through downsizing. The total population for the study consisted of 1,003 remaining employees from the HQ, factories and subsidiaries located all over the country. Respondents were from various hierarchical positions including managers, supervisors, technical, operating, sales, and administrative staff. To reduce the bias associated with cross-sectional study, a longitudinal technique was used to collect the data: subjects were surveyed at two points in time- T1 within a month after the downsizing, and T2 eight months later. The total number of sample responding to both T1 and T2 were 281. The company had been in existence for many years as a government agency (until it was privatized in mid-1990s) and had traditionally offered very stable employment conditions until recently when it announced downsizing as a strategy to reduce cost and to increase performance.

Negative affectivity was measured using twenty-one items from Negative Affectivity Scales (NAS) developed by Levin and Stokes (1989) as a self-report measure to assess the global disposition to negative affectivity. Respondents were asked to indicate the extent of their agreement (“1 = strongly disagree”, to “6 = strongly agree”) with the statements such as “I often feel restless and jittery for no apparent reasons”.

Perceived procedural justice was measured with 8 item scale (Othman, et al., 2005). It reflects the manner in which organizational procedures are carried out, and interpersonal treatment received during
the implementation of downsizing (i.e., “Managers/supervisors were concerned about employees’ welfare and rights during the implementation of downsizing”, and “The procedure used in choosing who to lay off was consistent”). Five-point Likert scale ranging from “1 = not true at all”, through “3 = not sure” to “5 = very true” was used to represent their agreement with the statements. To capture an individual’s PCV following a downsizing, eight items based on Morrison and Robinson’s (1997) definition of a violation being the negative emotion associated with the breach of PC were used. Respondents were asked to indicate how strongly they experienced those emotions in regards to the downsizing implemented by their organization (“betrayed”, “angry”, “resentful”, “shock”, “insecure”, “lose trust”, “unfair”, and “disappointed”), using a five-point Likert scale ranging from “1 = none at all”, through “3” = moderate”, to “5 = very strong”. OCB was measured using 30 item-scale adapted from the work of Podsakoff et al., (1990), Mackenziee, Podsakoff & Fetter (1991), and Organ (1994), which has been previously proven to show both discriminant and convergent validity in a Malaysian context (Othman, et al., 2005). Likert-scale ranging from 1 to 5 was used to measure their agreement with the given statements. Affective commitment was measured with eight items from the Affective Commitment Scale (ACS) developed by Allen and Meyer (1990). Examples of the items are “I would be very happy to spend the rest of my career with this organization”. Respondents were asked to indicate the extent of their agreement of the statements on a seven-point Likert scale ranging from “1 = strongly agree, through “4 = neither agree or disagree”, to “7 strongly agree”. Turnover intention was measured by using a multi-item scale in which the items were adopted from various authors (i.e.,Kransz et al., 1995; Chiu & Francesco, 2003; Cammann et al., 1983). Sample of the item was “In the last few months, I have seriously thought about looking for a new job”. Respondents were asked to indicate the extent of their agreement with the statements using a five-point Likert scale ranging from “1= very unlikely” to “5= very likely”.

ANALYSES AND FINDINGS

SEM with AMOS 5.0 program (Arbuckle, 1999) was used to test the model. Missing data was replaced with EM approach ((Schafer & Graham, 2002). An examination of the data indicates supports for normal
distribution of the data. Table 1 shows the descriptive statistics (mean and standard deviation), reliabilities and zero order correlations between the variables examined in the present study.

(Insert Table 1 here)

Following Anderson and Gerbing’s (1988) two-step procedure, the measurement model was assessed independently and before that of the structural model. Since the recommended ratio of sample size to parameter did not achieve the recommended level (Bentler, 1995) a partial disaggregation approach was employed as a more parsimonious estimation strategy (Bagozzi & Heatherton, 1994). The result of CFA indicates a well fitting measurement model of $\chi^2_{(84)} = 97.4$, at $p < 0.05$; GFI = .96; CFI = .99; TLI = .99 and RMSEA = .02. All factors significantly loaded to their intended factors, and the comparison between the hypothesised six-factor model and other alternative models also demonstrated support for the hypothesised model (see Table 2).

(Insert Table 2 here)

**Structural Model**

Using the procedures recommended by Baron & Kenny (1986), and Kelloway (1995) for testing mediation, the proposed fully-mediated model (PCV mediates the relationships between the independent variables-perceived justice and negative affectivity- and the dependent variables-commitment, OCB, and turnover intention) is tested against the partially-mediated and non-mediated model. The findings in Table 3 suggest the appropriateness of the fully-mediated model. The chi-square differences test results indicate a non-significant improvement of fit of the partially-mediated model ($\Delta \chi^2 = 10.5$, $p > .01$). On the other hand, the partially-mediated model was a significant improvement on the non-mediated model ($\Delta \chi^2 = 47.5$, $p < .01$). An examination of standardised coefficients in the partially-mediated model reveals the insignificant direct paths from NA and perceived justice to all the outcome variables. Deleting these insignificant paths in essence creates Model 1 or the fully-mediated model.

(Insert Table 3 here)
Another set of mediated relationships were also examined. So far, the hypothesised full model suggests the mediating role of commitment. To confirm the finding, chi-square differences tests were performed by comparing the partially-mediated model with the fully-mediated model (commitment mediates the relationship between PCV- OCB, and PCV-turnover intention), and the non-mediated model. The findings in Table 4 indicate the appropriateness of the hypothesised partially-mediated model.

(Insert Table 4 here)

To summarize, the findings from SEM suggests that the hypothesised model was a satisfactory fit to the sample data with $\chi^2 (82) = 103.4$ at $p = 0.06$; GFI = 0.95; CFI = 0.99; TLI = 0.99; RMSEA = .03 (see figure 2). H1 and H2 were supported: Negative affectivity has a significant positive effect on the PCV (standardised coefficient = .23), perceived procedural justice has a significant negative effect on the PCV (standardised coefficient = -.47). Together, both negative affectivity and perceived justice explain 33% of the variance in the PCV. Except for H3 (direct effect of PCV on OCB), the rest of the hypotheses were also supported: PCV is a significant predictor of commitment and turnover intention (H4 and H5). Those with high PCV report less commitment (standardised coefficient = -.60) and high turnover intention (standardised coefficient = .19). Commitment is significantly related to OCB and turnover intention with standardised coefficient .75 and -.51 respectively (H6). In terms of the variances explained in the outcome variables, the predictor variables explain 36% of the variance in commitment, 56% in OCB and 41% in turnover intention

(Insert Figure 2 here)

DISCUSSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

First, the significant role of justice here suggests that when survivors perceived that employees had been treated fairly during downsizing, they were less likely to experience PCV. The literature has established the importance of perceptions of justice during downsizing. Survivors expect fair procedure and fair treatment from the organization. When this expectation of fairness is not met, survivors perceive the organization as not fulfilling their obligation. In effect, the perceived unfairness leads to a negative affective reaction known as PCV. These emotional states, consequently, will be followed by the negative
response in attitudes and behaviours of employees. Those negative attitudes and behaviours are displayed as a way to reciprocate the organization’s failure to fulfil the expected obligation. Thus, in the context of downsizing, violation can be viewed as the mechanism through which perceived justice is translated into outcomes such as intention to turnover, low organizational commitment, and low willingness to participate in OCB.

Similarly, the findings suggest that the effect of negative affectivity disposition on the outcome variables is explained by PCV. Particularly in the situation where there is much ambiguity and insecurity, those survivors with high negative affectivity trait may have more tendencies to focus on the negative aspects of downsizing compared to those with low negative affectivity. As a consequence, they are more prone to experience the negative affective reactions of PCV. This feeling of violation, in turn, is translated into lower commitment, lower OCB and higher turnover intention. The present study has shown that personality disposition is indeed very important and clearly we should beware of assuming that employees’ feelings of PCV in downsizing processes are explained merely by their perceptions of justice, since they do depend on personality disposition to a degree.

Contrary to the findings from previous research that have indicated significant direct effects (e.g. Robinson & Morrison, 1995; Parks & Kidder, 1994), in this downsizing context, only an indirect relationship through commitment was found. PCV was strongly related to commitment and turnover intention, but not to OCB. Turnley and Feldman’s (1999) justification of the insignificance of voice and neglect as a response to contract violation may be adopted as a plausible explanation for this finding. Especially in a downsizing context, survivors will reciprocate the violation of psychological contract through a number of responses. However, their responses will be determined by the consequences of the responses; for example, the negative consequences associated with the intention to turnover and lower level of commitment would be lower compared to those of a decrease in citizenship behaviour. This is because, in most of the cases, co-workers and supervisors are unlikely to know that an employee is trying to leave the organization. Usually the employee will keep his/her intention to leave secret, or to disclose it only to close friends. Similarly, an employee’s emotional attachment would not be under scrutiny by
organizational members. However, responding to the violation by exhibiting less citizenship behaviour may be more risky since these behaviours occur at work and would be more likely to be noticed by members of the organization, including supervisors and co-workers (Turnley & Feldman, 1999). In times of high job insecurity, employees may less be inclined to display negative behavioural outcomes of PCV due to fear of the repercussion which may include the possibility of not getting the promotion or being laid off in the future downsizing (Turnley & Feldman, 1999).

The findings also revealed both significant direct and indirect relationships between PCV and turnover intention. Firstly, as argued by Robinson and Rousseau (1994), the relationship between an employee and his/her employer is bounded by a psychological contract. This contract provides assurance that if each does his or her part, the relationship will be mutually beneficial. In the case of downsizing where violation occurs, the bond may be broken, causing the employee to lose faith in the benefits of staying in the relationship. As a result, the employee is more likely to leave the organization/employer. The indirect effect of PCV on intention to turnover through commitment, this finding is consistent with previous literature where affective commitment has consistently been shown to be negatively related to turnover intention (e.g. Allen & Mayer, 1996; Tett & Mayer, 1993). Those employees with high affective commitment may choose to stay in the organization because they believe in the organization and its mission (Dunham, Grube & Castaneda, 1994).

Finally, the present study has highlighted the utility of psychological contract as a useful framework in understanding why employees exhibit higher or lower levels of commitment, OCB and turnover intention following downsizing. The theory is not just limited, however, to helping us understand the emotional experience of the individual involved in the downsizing process, but this perspective may also offer an insight into our understanding of how the changing nature of the relationship between employees and the employer as a result of a downsizing experience has affected survivors. Researchers (e.g., Kets de Vries & Balazs, 1997; Rousseau & Wade-Benzoni, 1995) argue that of primary importance in understanding survivors’ experience and reactions is the changing nature of the relationship between
the individuals and the organizations, and in particular the breaking of the implicit psychological contract by the organization.

In term of practice, the findings offer a number of implications. Firstly, based on the analysis of the longitudinal data collected from the respondents (T1 vs. T2), the study suggests that employee evaluation or perception of fairness is not only important in influencing their immediate response, but also in predicting their longer-term reactions to downsizing. Thus, the lesson to be learnt by organizations from this specific finding is the importance of creating a climate of fairness during the immediate implementation of downsizing. Secondly, managers need to understand that negative reactions to downsizing are not just simply a function of situational factors, but also reflect more broadly-enduring individual differences in personality of the employees. With this knowledge in mind, managers should invest in programmes aimed at reducing the negative effect of downsizing on survivors, specifically tailored according to individuals’ differences. The knowledge of employees’ personality or individual differences may be used to help managers in dealing with downsizing, especially in an environment in which many other aspects of the employment relationship have become individualised. Finally, since the findings suggest the important of PCV, for those organizations going through downsizing, they should work to lessen the most severe reactions to PCV by carefully and honestly explaining any external forces, which cause them to renege on the promise (i.e. job security). On top of that, during times of changing employment relationships, when mutually understood obligations cannot be delivered, downsized organizations should perhaps seek to renegotiate the psychological contract and establish new terms that reflect the new work conditions. This renegotiation of terms is necessary to avoid the perception of contract breach, and consequently the negative responses associated with affective reaction of PCV.

LIMITATIONS AND FUTURE RESEARCH

The findings and the implications of this study must be considered in light of its limitations. Firstly, our sample was drawn from a specific organization where job security used to be the norm, and this setting may be unique enough to limit the external validity of our findings. Secondly, we collected the data from a single source with self-report survey measures raising concern that common method variance alone may
account for those significant findings. The observed relationship may have been artificially inflated due to respondents’ tendencies to response in a consistent manner. However, the longitudinal design of the present study may reduce the likelihood of the bias.

Given the suggested key advances and contributions to the field, we would like to suggest that future research on downsizing should adopt a more rigorous approach, particularly in terms of the methodology used and the model being investigated. Longitudinal data, for example, enables us to confirm the stability of the findings, which in turn brings more confidence that the observed relationship may not be associated with respondents’ tendencies to respond in a consistent manner, and allows us to examine the effect of antecedent variables on the outcomes over time. In addition, especially when dealing with individuals’ emotions and affects, we need to employ those qualitative research techniques. Finally, in relation to the significant roles of negative affectivity, and psychological contract framework suggested by the study, we would recommend that, in addition to replicating the present study so as to confirm the findings in other settings, future research should place more emphasis on exploring the roles of other personality and different theoretical framework to understand the effects of downsizing on employees.
Figure 1: Theoretical Model of the Proposed Antecedents and Outcomes of PCV

Figure 2: Structural Model- Model-fit indices and standardised coefficients for the proposed relationships

<table>
<thead>
<tr>
<th>MODEL-FIT INDICES</th>
<th>Chi-square ($\chi^2$)</th>
<th>GF1</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>103.4, d.f. 82 (p= 0.05)</td>
<td>0.95</td>
<td>0.99</td>
<td>0.99</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Notes: * Significance at p< .05; ** Significance at p< .01
Table 1: Means, Standard Deviations, Alpha Reliability and Zero-order Correlation (Time 1 Predictor vs. Time 2 Outcome Variables)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Affectivity (Time 1)</td>
<td>2.90</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.78)</td>
</tr>
<tr>
<td>2. Perceived Justice (Time 1)</td>
<td>3.05</td>
<td>.71</td>
<td>-.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.87)</td>
</tr>
<tr>
<td>3. PCV (Time 2)</td>
<td>2.44</td>
<td>.99</td>
<td>.30</td>
<td>-.48</td>
<td></td>
<td></td>
<td></td>
<td>(.94)</td>
</tr>
<tr>
<td>4. Commitment (Time 2)</td>
<td>4.92</td>
<td>1.09</td>
<td>-.26</td>
<td>.33</td>
<td>-.52</td>
<td></td>
<td></td>
<td>(.75)</td>
</tr>
<tr>
<td>5. Turnover Intention (Time 2)</td>
<td>2.26</td>
<td>.88</td>
<td>.23</td>
<td>-.36</td>
<td>.45</td>
<td>-.54</td>
<td></td>
<td>(.89)</td>
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<tr>
<td>6. OCB (Time 2)</td>
<td>3.28</td>
<td>.69</td>
<td>-.18</td>
<td>.26</td>
<td>-.46</td>
<td>.61</td>
<td>-.51</td>
<td>(.88)</td>
</tr>
</tbody>
</table>

Notes: * Significance at p< .05; ** Significance at p< .01; Figure in brackets represent Alpha Reliability coefficient.

Table 2: CFA- Comparison of the Measurement Models

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>d.f.</th>
<th>GFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
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</thead>
<tbody>
<tr>
<td>6-Factor Model</td>
<td>97.4</td>
<td>84</td>
<td>.96</td>
<td>.99</td>
<td>.99</td>
<td>.02</td>
</tr>
<tr>
<td>5-Factor Model</td>
<td>173.0</td>
<td>90</td>
<td>.92</td>
<td>.96</td>
<td>.95</td>
<td>.06</td>
</tr>
<tr>
<td>3-Factor Model</td>
<td>390.3</td>
<td>95</td>
<td>.84</td>
<td>.88</td>
<td>.85</td>
<td>.11</td>
</tr>
<tr>
<td>2-Factor Model</td>
<td>1026</td>
<td>102</td>
<td>.64</td>
<td>.63</td>
<td>.57</td>
<td>.18</td>
</tr>
<tr>
<td>1-Factor Model</td>
<td>1201.7</td>
<td>105</td>
<td>.63</td>
<td>.56</td>
<td>.50</td>
<td>.19</td>
</tr>
</tbody>
</table>

Note: In the 6-factor model, all the constructs are treated as six independent factors. In the 5-factor model, commitment and OCB items were loaded on one factor. In the 4-factor model, commitment and OCB items were loaded on one factor, and NA and PCV items were loaded on one factor. In the 3-factor model, justice and NA items were loaded on one factor, and PCV, OCB, commitment and turnover intention items were loaded on one factor. In the 1-factor model, all items were loaded on a single factor.

Table 3: Comparison of the Alternative Models

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>d.f.</th>
<th>$\Delta \chi^2$</th>
<th>GFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1 (hypothesised full mediation)</td>
<td>103.4</td>
<td>82</td>
<td>.95</td>
<td>.99</td>
<td>.99</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Model 2 (partial mediation)</td>
<td>92.9</td>
<td>76</td>
<td>.96</td>
<td>.99</td>
<td>.99</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Differences (Model 1 – Model 2)</td>
<td>10.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3 (non-mediation)</td>
<td>140.4</td>
<td>78</td>
<td>.94</td>
<td>.97</td>
<td>.98</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Differences (Model 3 – Model 2)</td>
<td>47.5*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p< .01. The significant level of chi-square differences test is set at p< .01 (for 1 d.f., $\chi^2$ corresponds to 6.63) in order to be more confident that any modification to the hypothesised model is less likely to be an artefact of the sample used in the study.
Table 4: Comparison of the Alternative Models: Commitment as a Mediator

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>d.f.</th>
<th>$\Delta \chi^2$</th>
<th>GFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1 (full mediation)</td>
<td>111.0</td>
<td>83</td>
<td></td>
<td>.95</td>
<td>.99</td>
<td>.99</td>
<td>.04</td>
</tr>
<tr>
<td>Model 2 (hypothesised partial mediation)</td>
<td>81</td>
<td></td>
<td></td>
<td>.96</td>
<td>.99</td>
<td>.99</td>
<td>.03</td>
</tr>
<tr>
<td>Differences (Model 1 – Model 2)</td>
<td>100.1</td>
<td></td>
<td>10.9*</td>
<td>.92</td>
<td>.96</td>
<td>.95</td>
<td>.07</td>
</tr>
<tr>
<td>Model 3 (non-mediation)</td>
<td>83</td>
<td></td>
<td>89.8*</td>
<td>.92</td>
<td>.96</td>
<td>.95</td>
<td>.07</td>
</tr>
<tr>
<td>Differences (Model 3 – Model 2)</td>
<td>189.9</td>
<td></td>
<td></td>
<td>.92</td>
<td>.96</td>
<td>.95</td>
<td>.07</td>
</tr>
</tbody>
</table>

*Significant at $p<.01$. The significant level of chi-square differences test is set at $p<.01$ (for 1 d.f., $\chi^2$ corresponds to 6.63) in order to be more confident that any modification to the hypothesised model is less likely to be an artefact of the sample used in the study.
REFERENCES


Brockner, J., Tyler, TR., & Cooper-Schneider, R. (1992) The influence of prior commitment to an institution and reactions to perceived unfairness: The higher they are, the harder they fall. *Administrative Science Quarterly* 37: 241-261.


