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How to measure psychological contract breach as a predictor of workplace outcomes: evidence from Vietnam

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Abstract

Psychological contract is a useful framework to study the relationships between employees and organizations. Psychological contract breach has been verified as a solid predictor of negative workplace outcomes. Psychological contract breach can be measured in several ways: concrete item-based measure, subcontract or dimensional measure and global measure. Which measure of breach is the best in predicting workplace behaviors? Using data from MBA students in Vietnam, the current study utilizes structural equation model (SEM) to compare among measures of breach. The result suggested that global measure of breach is most appropriate in predicting workplace outcomes such as turnover intention, in-role job performance and organizational citizenship behaviors. The dimensional-based measure also fit the data better than the item-based concrete measure of breach. Moreover, the current study tests the influence of the employees' perception of the extent to which they fulfill their contract obligations on appropriate measure of breach. A scale was developed to measure the employees' self-fulfillment of contract obligations. The data were then split into halves based on median score on this scale. The results showed that the 5-item global scale developed by Robinson and Morrison (2000) was appropriate for low self-fulfillment employees while the 3-item scale, which was created by removing 2 items that mention mutual fulfillment, fit better for high self-fulfillment group.

Keywords: *Psychological contract, breach, measure, self-fulfillment, Vietnam*

1. Introduction

A dominant emphasis of current research has focused on the consequences of perceived contract breach on employees' feelings, attitudes and behavior. Because of the high frequency of breach occurrence and because of the important role of breach in explaining subsequent workplace attitudes and behaviors, this topic has attracted numerous attentions. In most of the research, breach has been investigated from the employee perspective – breach occurs when employees perceive that the organization has failed to fulfill its obligations.

The consequences of breach have been reported in a great deal of previous research. Negative attitudes include reduced job satisfaction (Tekleab & Taylor, 2003), increased intention

to leave (Turnley and Feldman, 1999), reduced trust in the organization (Robison, 1996), reduced commitment (Coyle-Shapiro & Kessler, 2000) and more cynical attitudes towards the organization (Johnson & O'Leary-Kelly, 2003). In terms of behavior, contract breach negatively affects in-role performance and extra-role behaviors (Lester et al., 2002; Robinson & Morrison, 1995).

Although there have been numerous research on the consequences of breach, the question of how to measure breach received much less attention. The occurrence of breach and the relationship between breach and outcomes can be dependent on how breach is measured. For example, in a study of over 800 managers, Turnley (1996) found that 81% of respondents reported receiving less (or much less) than promised on at least one of the job factors comprising the psychological contract. However, when asked to assess the overall extent to which their organization had kept its promises, only 24% of respondents said that they received less (or much less) than promised. They suggested that the occurrence of perceived breach is dependent on how breach is measured.

Psychological contract literature suggested several ways to measure breach. Zhao et al., (2007) advocated that there are basically three ways breach has been measured. The first approach is by using a concrete measure. This type of measure refers to various content items of the psychological contract (e.g., high pay, training, and job security) and asks respondents how much the organization has fulfilled its obligation or promise on each item. The second approach is a global measure. This type of measure does not refer to any specific content item but directly assesses subjects' overall perceptions of how much the organization has fulfilled or failed to fulfill its obligations or promises. The third measurement approach for breach is labeled weighted measure. This type of measure is similar to the composite measure in that it uses a number of content-specific items of the psychological contract and asks respondents their perceptions of breach in these contents. However, it also asks subjects to indicate the importance on each of the content items. Each raw breach score is multiplied by the respective perceived importance score and then summed or averaged to yield a weighted breach score. However, they suggested that this type of measured is less popular compared to the other two approaches

Another possible way to measure breach is to use the *dimensional measure*. This type of measure is also similar to the concrete measure in that it asks the respondents about the degree of fulfillment for each obligation item. On the other hand, this approach is different to the concrete measure in that it does not focus on individual obligation item but assess the perception of fulfillment for each dimension or category of items, for example compensation, training, or work environment...The score for all items in a dimension will be averaged to yield the score for that dimension. De Vos and Buyens (2001) demonstrated that the psychological contract construct consists of clusters of promises and obligations and to understand the dynamics of psychological contract development, it is essential to look at those clusters and that the psychological contract should not be considered as a holistic, one-dimensional construct. The uses of dimensional measure of breach were also reported in several previous studies. Bunderson (2001) studied the

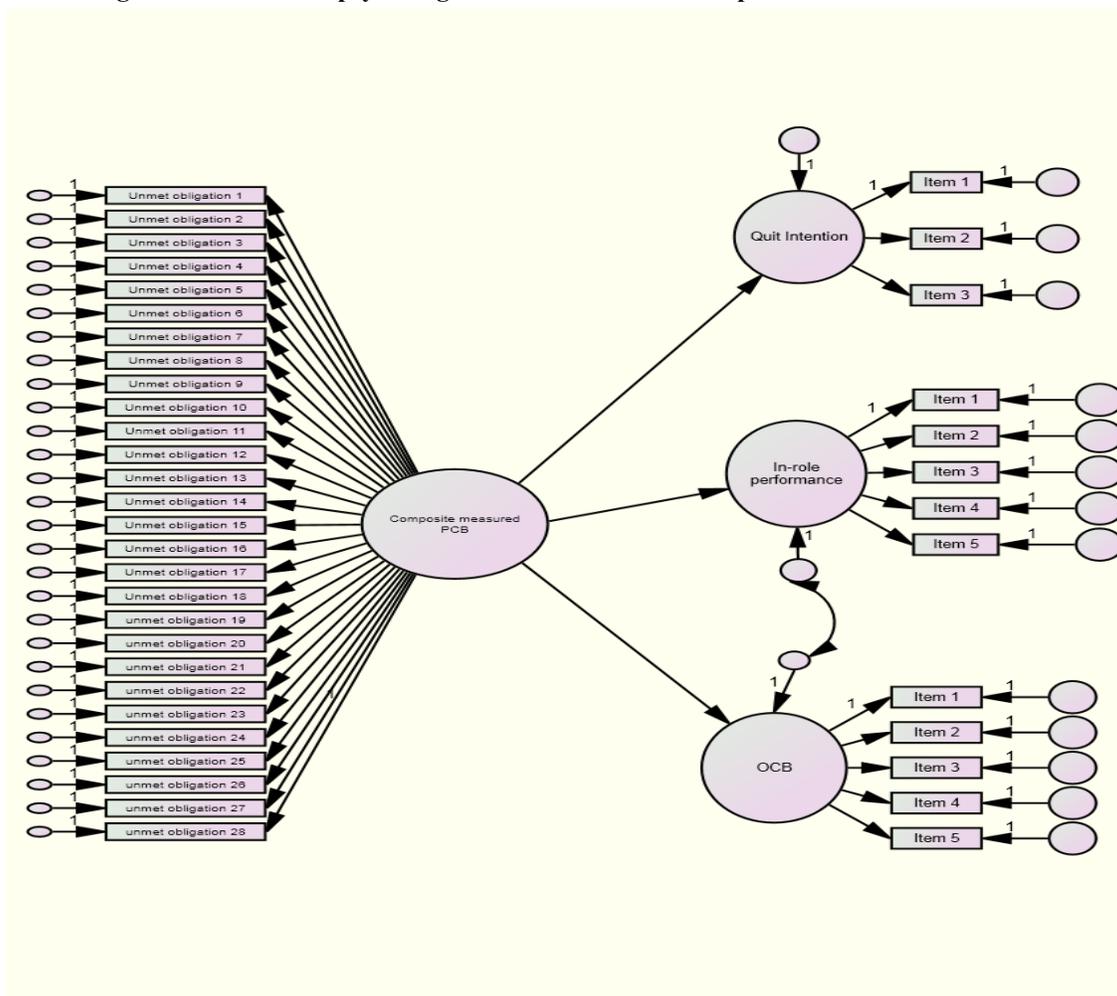
responses to perceived psychological contract breach among professional employees. He made distinction between perceived administrative breach, that is, the perception that the organization did not fulfill administrative role obligations and perceived professional breach, the perception that the organization failed to fulfill professional role obligations. He also found that breach of different roles had different impacts on workplace outcomes. Ho et al. (2004) examined the impacts of neuroticism and agreeableness on the strength of both cognitive and affective responses to breaches of the psychological contracts. The researchers used the terms social breach and economic breach. In an economic breach, the individual suffers an economic, monetary loss as a result of the breach. In a social breach, the individual experiences embarrassment or a loss of face. Kickul and Lester (2001) examined equity sensitivity as a moderator between contract breach and employee attitudes and behaviors. They used the term breach of intrinsic outcomes and breach of extrinsic outcomes. Their results suggested that individuals low in equity sensitivity responded more negatively to psychological contract breaches of intrinsic outcomes such as autonomy and control, while those high in equity sensitivity reacted more negatively following breaches of extrinsic outcomes. Zhao et al., (2007) adopted the relational-transactional classification of psychological contract. They distinguished between breach of relational contents and breach of transactional content. The researchers hypothesized that breach of the transactional content has stronger relationships with work outcomes than breach of the relational content. The data however, did not provide supports for the hypothesis.

So, what is possibly the best measure of breach in predicting work-related outcomes and behaviors? Although studies on the consequences of psychological contract breach are abundant, few attempted to compare among several measures of breach. The only exception was the meta-analysis conducted by Zhao et al., (2007). They found that global measure of breach had larger effect sizes than concrete measure for most outcome variables. However, this study was a meta-analytic study that attempted to combine the results from different studies. In fact, none of these individual studies compared among multiple measures of breach. The current study finds the answer for the research question by comparing among several measure of breach in predicting workplace outcomes. Specifically, this study use Structural Equation Models (SEM) to compare across three different measure of breach: the concrete measure, the dimensional measure and the global measure of breach. The outcomes variables include self-reported in-role job performance, organizational citizenship behaviors and intention to quit the organization. Criteria for model selection will include model fit index as well as the size of the relationship between breach and selected outcome variables. Data was collected from a sample of Vietnamese MBA students at two big Universities in Hanoi, Vietnam.

2. Hypothetical models

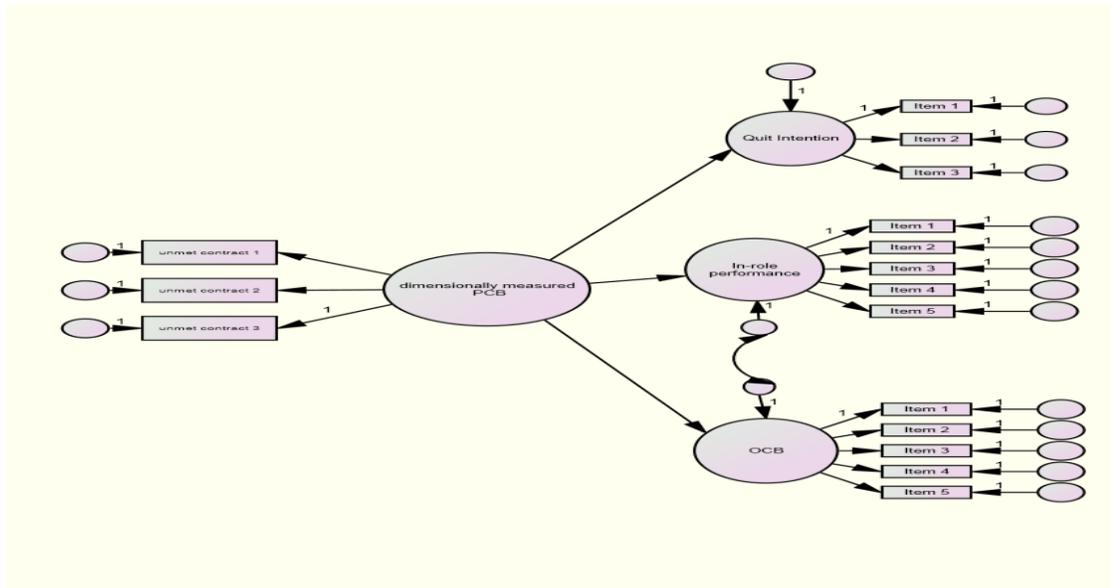
The current study compare among different measures of psychological contract breach. To compare among several measures of breach, several measure were calculated. The first measure is the composite measure. The employees were asked to rate the degree of fulfillment for each item in the psychological contract scale from 1: “Much less than promised” to 5 “Much more than promised”. The score for each of these items represent an observed variable. Breach of the psychological contract breach was conceptualized as a latent variable that was predicted by these observed variables. Also, breach was hypothesized to predict in role job performance, OCBs and Intention to quit each of which was also latent variables measured by a scale of several items. The model was labeled model 1. In this model, I allowed the covariance of the error terms of in-role performance and OCBs because it can be expected that the unexplained variance in job performance and OCB can be attributed to similar factors such as employees’ work value, organizational culture and personality traits.

Figure 1: Measure of psychological contract breach: composite measurement model



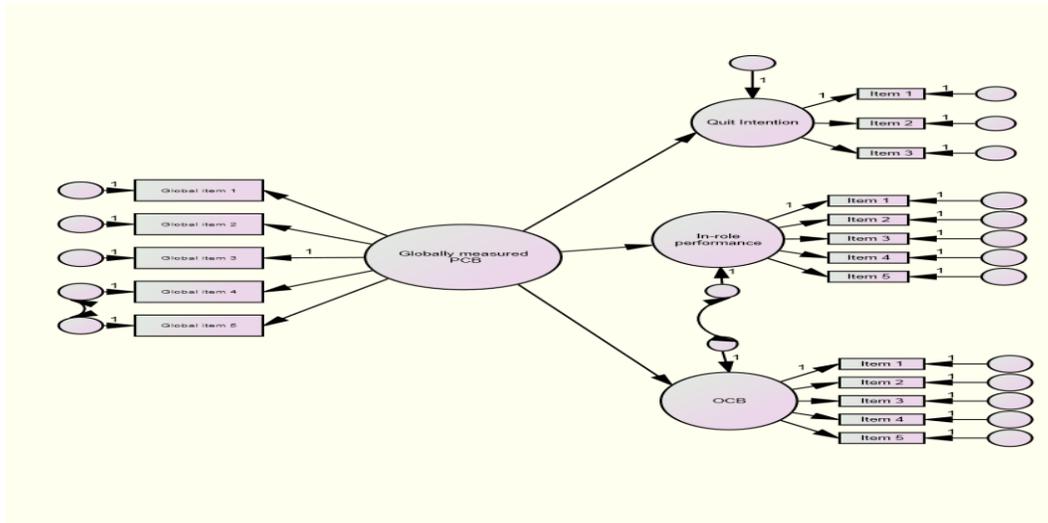
The second measure was the dimensional measure. This measure is similar to the above measure in that it also asked the respondents to rate the degree of fulfillment for each obligations item. However, unlike composite measure, not all of these scores were treated as observed variables. Instead, scores for items in each dimension were averaged to yield the score for that dimension. The score for each dimension was labeled unmet contract and treated as observed variables. Breach was again represented as a latent variable measured by these observed variables. For the current study, I used the three-dimension psychological contract structure consisting of job characteristic contract, work environment contract and compensation contract. The contracts were extracted from a factor analysis of data from a pilot survey to explore the content and structure of the psychological contract in Vietnam. The pilot survey was carried out 1 year prior to this study. This model was named model 2.

Figure 2: Measure of psychological contract breach: dimensional measurement model



The last measure was the global measure. In the current study, the five-item scale of perceived psychological contract breach developed by Morrison and Robinson (1997) were adopted. The global measure involved asking the employees to give their opinions about the overall fulfillment of contract obligations rather than focusing on each component item. The first three items of the scale measured employees' perception of organization's fulfillment without concerns about employee's self-fulfillment. The last two items, however, mentioned employee's comparisons between the contribution of self and of the organization. As a result, I allowed the error terms of the last two items to co-vary to take these mutual obligations into account. This model was referred to as Model 3. All other parts of this model, however, were identical to the aforementioned model 1 and model 2.

Figure 3: Measure of psychological contract breach: Global measurement model



3. Hypothesis development

The composite measure of breach maybe more useful in indentifying which items are being fulfilled and which are not (Conway and Briner, 2005). Furthermore this measure of breach can be used to track the fulfillment of the changing psychological contract. However, in predicting workplace outcomes, this measure has several weaknesses. First, the composite measure may not include relevant obligation items. For example, if an item is not included in the questionnaires but is of high importance, and the obligation is not fulfilled, the employees may interpret this as overall breach of the contract and may react negatively despite high fulfillment scores for all other items. Second, this measure does not take it to account the compensation effects between deficient and excess fulfillment. Deficient in fulfillment of one item in a contract can be compensated for by excess fulfillment of other item. As a result, the dimensional measure of breach can be better in predicting workplaces outcomes.

However, the dimensional measure, in turn, also had some drawbacks. First, like the composite measure, the dimensional measure does not take the relative importance of single item and single contract into account. Some contract maybe more important to a group of employees while of only moderate importance to another group of employees. Low fulfillment of one contract can also be compensated for by over fulfillment of other contract. Lambert, Edwards & Cable (2003) researched the differences between deficient and excess inducements and the relationship with satisfaction. They found that satisfaction increased as deficiency was reduced. The relationship between excess inducements and satisfaction appeared to depend on whether excess inducements inhibited or facilitated employees' need fulfillment. Satisfaction increased as delivered levels of pay, recognition and relationships with others exceeded promised levels of these inducements. For variety, skill development and career training, excess levels decreased

levels of satisfaction. The decrease in satisfaction for these three factors was less pronounced for excess inducements than for deficient inducements. Second, the perception of psychological contract breach involves the comparison between organizational and self fulfillment. The composite measure does not take self-fulfillment into account and thus may not actually reflect actual employee's perception of contract fulfillment.

The global measure of breach does not focus on any specific obligation or contract, instead, it evaluate the overall fulfillment of the contract. This overall perception of contract fulfillment may directly influence the employee's reaction to their contract evaluation. Zhao et al. (2007) also found that global measure of breach was more strongly related to workplace outcomes. In summary, it can be Hypothesized that

H1: The global measure of breach is the best in predicting workplace outcomes and the dimensional measure is better than the composite measure.

4. Procedure

Prior to the current study, a pilot study was carried out to explore the content and structure of the psychological contract in Vietnam. A 57-item scale was developed. The scale was sent to employees for review and irrelevant items were removed. Finally, a 44-item scale was used to collect data. The respondents were asked to give their ideas about the extent to which they believe that their employer is obligated to fulfill each obligation. Response was measured using a 5 point Likert scale ranging from 1: to a minimum extent to 5: to a great extent. Final data set consisted of 495 observations. Factor analysis resulted in 3 factors: job characteristics contract (10 items), work environment contract (9 items) and compensation contract (9 items)

A main survey was conducted 1 year after the pilot survey. The structure of the psychological contract in Vietnam explored by the pilot survey was used in the main survey. From MBA students, the final data set consists of 364 observations.

5. Measure:

Psychological contract breach:

For composite measure model: breach was measured by perception of fulfillment for each obligation item. Response was measure by a 5 point Likert scale ranging from 1: Much less than promised to 5: Much more than promised. All items were reverse coded so that high score represent high level of un-fulfillment. The scale includes 28 obligation items retained from factor analysis of pilot survey data.

For dimensional measure model: Breach was measure by perceived unmet contracts which were the average scores of items within particular contracts. The scale consists of 3 variables: unmet work characteristic contract, unmet work environment contract and unmet compensation contract.

For global measure model: Breach was measured by the 5-item scale developed by Robinson and Morrison (2000). The first three items evaluate employees' perception of fulfillment by the organization. A sample item was "Almost all of the promises made by my employer during recruitment have been kept so far" The last two items measured perception of mutual fulfillment. An example item was "My employer has broken many of its promises to me even though I've upheld my side of the deal" The reliability of this scale in the current study for Vietnamese sample was .842.

Intention to quit: a 3-item Developed by Becker (1992) was used to measure quitting intention. Cronbach's Alpha=.854.

In role job performance: A 5-item in-role job performance scale developed by Williams and Anderson (1991) will be used. Cronbach's alpha of .763 was obtained.

Organizational citizenship behaviors (OCB): A 5-item scale from the 19-items OCB scale developed by Moorman and Blakely (1995) will be used to measure OCB. This scale measures interpersonal helping behaviors. One sample item was "I always tried to help the people surround me with their work". The internal consistency of this scale was .816

6. Results

Employees' perception of fulfillment for each item was summarized in Table 1. The results indicated that regarding "No harassment at work" only 6% of the employees perceived that the organizations have failed to fulfill this obligation. On the other hand, more than 30% of the employees believed that the obligation of "Retirement benefit" has not been fulfilled by their respective organizations. High perceptions of unmet promise were also observed for "safe and congenial working conditions" and "Fair and equitable performance appraisal". It is notable that the perception of unmet promises was relatively low for all obligations. However, considering all obligations, more than 72% of the employees reported that their organizations have not fulfilled at least one of the obligations.

Table 1: Perception of contract breach – composite measure

Fulfillment of obligations		Mean	S.D.	% unmet perception
Job characteristic contract	Job that is significant for the company	3.07	.801	24.2
	Job that is significant for the community	2.87	.744	13.2
	Interesting and challenging job	2.96	.819	17.3
	Opportunity to develop marketable skills	2.70	.865	13.2
	Opportunity to acquire new knowledge and skills	2.83	.895	19.8
	Flexible working hour	2.99	.686	14.0
	Information regarding the company's financial and operating performance	3.01	.816	18.1
	Opportunity to apply professional knowledge to the job	3.08	.835	24.2
	Appropriate job allocation considering my knowledge, abilities and skills	3.00	.751	18.7
	Regular feedback about job performance	2.97	.842	21.2
Work environment contract	No discrimination in the workplace	2.96	.745	15.7
	Not to make unreasonable demand of employees	3.21	.723	26.6
	No harassment at work	2.66	.786	6.0
	Autonomy to decide the way to do the work	2.91	.798	16.5
	Respect the employee as an individual	2.79	.807	12.1
	Holistic concern	3.21	.814	30.5
	Support from the company when encountering difficulties with the job	3.01	.767	19.3
	Fair and equitable performance appraisal	3.14	.899	26.4
Compensation contract	Empower and entrust the employees within the scope of the job	2.86	.776	13.2
	Periodical salary increase	3.21	.724	24.2
	Overtime pay for overtime work	3.06	.739	17.0
	Benefit for employee (vacation, medical check-up, stock option...)	3.05	.802	21.2
	Retirement benefit	3.39	.892	30.8
	Subsidy for working night shift, working in chemical and/or noisy surrounding	2.99	.841	17.3
	Incentive that is linked to job performance	3.07	.849	24.5
	Safe and congenial working conditions	3.09	.848	28.0
	Concern and benefits for family members	3.02	.826	21.7
High and Competitive salary	2.91	.881	19.5	

Note: N=364

The results for dimensional measure and global measure of perceived psychological contract breach for Vietnamese data were displayed in Table 2. About 43.2% of the employees perceived that at least one of their contracts has not been fulfilled by the employers. Proportion of employees with perception of unmet job characteristic contract was 28.3%. The figures for work environment contract and compensation contract were 24.5% and 35.7% respectively. Highest perception of unmet contract was observed for compensation contract. Lowest unmet perception was found for work environment contract. However, when asked about the overall contract fulfillment by the organizations, only 20% of the employees reported that they perceived that their contracts have been breached by the organizations. The findings indicated that there were significant differences in the percentage of perceived contract breach depending on the measure

of breach. To sum up, the results indicated that the perception of contract breach was highest for composite measure, then for dimensional measure and lowest for global measure of breach.

Table 2: Perception of contract breach- dimensional and global measure

Fulfillment of contract	Mean	S.D.	% unmet
Job characteristic contract	2.9282	.55380	28.3
Work environment contract	2.9521	.54921	24.5
Compensation contract	3.0763	.53982	35.7
Overall contract (Global measure)	2.5368	.70360	20.2

Note: N=364

7. Hypothesis testing

For Vietnamese data, the composite measure of psychological contract breach model produced a relatively poor fit: $\chi^2=2000.466$, $df =773$, $p<.001$; $GFI=.768$, $NFI=.739$, $CFI=.821$, $RMSEA=.066$, $PCFI=.770$, $PNFI=.697$.

The dimensional measure, on the other hand, has proved to be a significantly better model: $\chi^2=286.645$, $df =100$, $p<.001$; $GFI=.911$, $NFI=.890$, $CFI=.925$, $RMSEA=.072$, $PCFI=.771$, $PNFI=.742$.

Finally, the global measure of breach also fit the data much better than the composite measures indicated by its fit indexes: $\chi^2=333.796$, $df=130$, $p<.001$; $GFI=.911$, $NFI=.895$, $CFI=.929$, $RMSEA=.066$; $PCFI=.789$, $PNFI=.756$.

Fit indexes for the dimensional and composite measure were similar although the global measure had marginally better scores for all criteria. In order to choose between these two models I used the Parsimony-adjusted measure. The result also indicated that the global measure of breach fit the data slightly better than the dimensional measure. Furthermore, the impacts of breach as measured by global scale on in-role performance ($\beta = -.077, p < .01$), OCB ($\beta = -.396, p < .001$) and intention to quit ($\beta = .864, p < .001$) were all significant. In conclusion, for Vietnamese data, the global measure of breach was the best model in predicting workplace outcomes.

To investigate the role of perceived mutual fulfillment on the appropriate measure of breach, I tried fitting the three-item global scale derived by removing the last two items which mentioned mutual fulfillment with Vietnamese data. This model was not a better model compared to the original 5-item measure model ($\chi^2=283.149$, $df=100$, $p<.001$; $GFI=.911$, $NFI=.891$, $CFI=.925$, $RMSEA=.072$; $PCFI=.763$).

Finally, to examine the appropriate measure of breach for different groups of employees based on their perceived self-fulfillment level, the data set was divided into two subsets based on the median score of self-fulfillment. Then, the original 5-item scale and the shortened 3-item scale models were fitted to each set of data. The result indicated that for employees with low level of self-fulfillment, the 5-item scale ($\chi^2=273.135$, $df=130$, $p<.001$; $GFI=.868$, $NFI=.838$, $CFI=.906$, $RMSEA=.078$; $PCFI=.770$) was better than the 3-item scale ($\chi^2=230.339$, $df=100$,

$p < .001$; GFI=.865, NFI=.830, CFI=.894, RMSEA=.085; PCFI=.745. The result for high self-fulfillment group was not as clear ($\chi^2=206.576$, $df=130$, $p < .001$; GFI=.890, NFI=.858, CFI=.941, RMSEA=.057; PCFI=.800) for 5-item scale as compared to ($\chi^2=168.058$ $df=100$, $p < .001$; GFI=.898, NFI=.871, CFI=.942, RMSEA=.061; PCFI=.785) for 3-item scale. Thus it can be concluded that the 5-item scale was better for low self-fulfillment group of employees while there were no difference between 5-item and 3-item scale for employees with high level of self-fulfillment.

8. Conclusions and discussion

The data suggested that the percentage of perceived breach was dependent on how breach was measured. Highest percentage of breach was observed for composite measure, followed by dimensional measure while the lowest incidents of breach were observed for global measure.

Also, the composite measure of breach proved to be an inappropriate measure of breach as a predictor of workplace outcomes. The 5-item global measure model fit the data better than both 3-item global measure and dimensional measure as thus was the best measure of breach as a predictor of workplace outcomes.

The 5-item measure was better for low self-fulfillment group of employees while the difference between two measures was marginal for employees with high level of self-fulfillment. One explanation was that because employees with high level of self-fulfillment believed that they had upheld their side of the deal, the evaluation of breach would depend only on the perception of organization's fulfillment and therefore, there were no differences between 5-item scale and 3-item scale. On the other hand, low-self-fulfillment group may need to compare the degree of fulfillment from both sides in evaluating breach, the 5-item scale which considered mutual fulfillment was more appropriate than the 3-item scale which did not.

Overall, the results implied that for the employees, overall perception of obligations fulfillment is more important than perception of fulfillment on item level or dimensional level. Deficit in fulfillment of an obligation or contract can be compensated for by excess in fulfillment of other items or contracts. The organization can increase perception of fulfillment by focusing on highly important items or contracts.

9. Limitation

The first limitation was due to the sampling method: data was collected from MBA students in 2 big University in Vietnam and thus may not be highly representative of the overall Vietnamese employees

The second limitation was due to the use of self-reported questionnaires. Although self-reported questionnaires is appropriate to measure the psychological contract, evaluation of in-role performance and OCBs should be evaluated by other sources such as supervisor ratings.