A Construct Validation of Organizational Fairness

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Abstract

The objective of this study aimed to investigate the theoretical dimensionality of organizational fairness and to test construct validity of a fairness measurement. The construct of organizational fairness measurement will help managers to understand and manage employee relationship in a better way. The researchers were using maximum likelihood estimation method on AMOS 22.0 software to assess the construct validity of the measures and to determine whether the items actually reflected the construct. The results showed five completion models of organizational fairness. The model was re-estimated and re-analyzed to check the improvement in the model after every deletion of the items. The final step had deleted seven items from the model. Therefore, there were the 13 items that confirmatory factor analysis (CFA) supported a four factor structure to the measure, with distributive, procedural, interpersonal, and informational fairness. The researchers also contributed to the academic discourse on the construct of organizational fairness and provided empirical evidence on fairness construct.

Keywords: Organizational fairness, Construct validation, Fairness, Confirmatory factor analysis, CFA

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การตรวจสอบโครงสร้างของความเป็นธรรมองค์กร

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาแนวคิดทฤษฎีมิติของความเป็นธรรมและทดสอบความตรงเชิงโครงสร้างของการวัดความเป็นธรรม ในการวัดความเป็นธรรมขององค์กร จะช่วยให้ผู้จัดการเข้าใจและจัดการความสัมพันธ์ของพนักงานได้ดียิ่งขึ้น ทั้งนั้นผู้วิจัยได้ใช้วิธีภาวะน่าจะเป็นสูงสุด โดยใช้โปรแกรม AMOS 22.0 ทำการประเมินความตรงเชิงโครงสร้างของการวัดและกำหนดเพื่อตรวจสอบว่าข้อคำถามสะท้อนถึงตัวแปรจริงหรือไม่ ผลการวิจัยแสดงให้เห็นว่า 5 รูปแบบที่ทำการวิเคราะห์เสร็จสมบูรณ์ของความเป็นธรรมขององค์กร รูปแบบของการประเมินได้ทำการวิเคราะห์และประเมินผลซ้ำแล้วซ้ำอีกเพื่อตรวจสอบนำมาปรับปรุงในรูปแบบทุกครั้งที่ได้ทำการประเมินและวิเคราะห์เสร็จสิ้น ในรูปแบบสุดท้ายได้ทำการตัด 7 ข้อคำถาม ดังนั้นจึงมี 13 ข้อคำถามที่ได้นำมาทำการวิเคราะห์องค์ประกอบเชิงยืนยันที่ได้ทำการยอมรับ 4 ปัจจัยการวัดในโครงสร้างนี้ ได้แก่ การกระจายความเป็นธรรม การกระบวนการความเป็นธรรม ความสัมพันธ์ระหว่างบุคคลและความเป็นธรรมการให้ข้อมูล ทั้งนี้ผู้วิจัยยังมีการสนับสนุนในวาทกรรมเชิงวิชาการในตัวแปรความเป็นธรรมขององค์กรและดำเนินการจัดให้เป็นหลักฐานเชิงประจักษ์

คำสำคัญ: ความเป็นธรรมขององค์กร ความตรงเชิงโครงสร้าง ความเป็นธรรม การวิเคราะห์องค์ประกอบเชิงยืนยัน CFA

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Introduction

The term of fairness has been found to influence organizational commitment, job satisfaction, and organizational performance. In additions, fairness perception is an important concept, which can enhance positive attitudes and behaviors of employees (Pérez-Arechaederra et al., 2014). Then, experiences and events of fairness can take different forms in exchange relationship. Many scholars have tried to delineate these perceptions as different forms of relationship over time (Bies & Moag, 1986; Greenberg, 1990). The impact of perception of fairness has ultimately linked to the effectiveness of the performance. Moreover, perception of fairness is also inter linked to the satisfaction of employee with the performance appraisal system and has a positive influence on work performance, organizational commitment (Kuvaas, 2010) and job satisfaction (Jawahar, 2006). Therefore, there are research studies that have done on what the appropriate of fairness construct that can be used for organization. Cropanzano and Ambrose (2015) mentioned that fairness construct includes distributive fairness that is what people receive, procedural fairness that is the allocation process, and interactional fairness that is the interpersonal treatment along the way. By this sense of meaning of each construct, fairness perceptions may lead to significant organizational outcomes, such as well-being, satisfaction, emotional exhaustion, and performance (Colquitt et al., 2013; Castaño & García-Izquierdo, 2018), and consequently, many organizations are becoming more interested in its measurement. The right construct of fairness measurement can be brought to the right way of managing employee enhancing to organizational performance. As a result, the common premise of these studies is that fairness is the key social force applied so that practitioner can use fairness for managing exchange relationship and achieving organizational performance (Luo et al., 2015).

Over the last 50 years, there has steadily increased the research on organizational fairness (Park et al., 2018). The increasing of organizational fairness research has included many management and marketing studies that explores the conceptualization and measurement of fairness (Colquitt, 2001; Moorman, 1991; Miller et al., 2012; Shaikh et al., 2017). The measurement of fairness construct was found as the two-factor conceptualization, which was integrating distributive and procedural fairness that had found consistent support for organizational fairness (Greenberg, 1990). Although some researchers have treated interactional fairness as a third type (Bies & Moag, 1986; Aquino, 1995). Greenberg (1993) carried on a new perspective interactional fairness further consists of two distinct and separate dimensions of fairness, namely, interpersonal and informational fairness, ultimately introducing a four-factor model of organizational fairness. The debate about whether informational and interpersonal fairness are different construct or one single construct. However, it has still not settled in the organizational research suggesting a dependence on the context (Colquitt, 2001; Cohen-Charash & Spector, 2001; Miller et al., 2012). Most fairness research accepts that three distinct fairness types exist: distributive, procedural, and interactional as presented in Table 1. Moorman (1991) perhaps constructed the most comprehensive

and most frequently used measure of procedural and interactional fairness. Although the interactional fairness measure contains items tapping the sincerity and explanation facets of interactional fairness identified by Bies and Moag (1986).

Empirical tests of the four-factor delineation were provided by Colquitt (2001) in the studies that had reported on the fairness construct and discriminant validity evidence. Several researchers have since found additional empirical support for the four-factor model (Shaikh, 2016; Pérez-Arechaederra, et al., 2014). Nevertheless, considerable attention and progress have been made in the refinement of organizational fairness measurement. Thus, this research study is essentially a replication and, most importantly, an extension of Colquitt's (2001), in which he predicts instrumentality with distributive fairness, group commitment with procedural fairness, helping behavior with interpersonal fairness, and collective esteem with informational fairness. In additions, the organizational structure in many Asian countries is more vertical, collective, and hierarchy-oriented (Nakane, 2008; Park, et al., 2018), compared to the other structure in European countries (Hofstede, et al., 2010; Park et al., 2018). The role of cross-cultural differences in fairness outcomes is an important area of organizational fairness studies. Furthermore, cross-cultural perspectives on organizational fairness are helpful in assessing the generalizability of organizational fairness theories (Greenberg, 2011; Park, et al., 2018). A modified version of Colquitt's (2001) scale has been used in this scale, which can assess organizational fairness. However, it has not been translated and developed for use in Thailand, and its reliability and validity in this population has not been tested.

Thus, the purpose of the research paper is to investigate the theoretical dimensionality of organizational fairness and to test construct validity of a fairness measurement. Our proposed measure of organizational fairness will help managers understand and manage employee relationship in a better way. The researchers also contribute to the academic discourse on the construct of fairness and provide empirical evidence. The paper is organized as follows. In the literature review section, the researchers discuss the conceptualization and measurement of the fairness construct. The researchers then present the research method and data collection process. Next, the researchers discuss the results and findings of our study. In the end, the researchers discuss implications of the study and present directions for future research.

Literature Review

In the present, the concept of fairness is still on debating and unsettle. The authors collaborated review of different conceptualization of fairness construct as show in the table 1. Moreover, we have reviewed the concept of fairness and Measurement of Organizational fairness as the following section.

1. Concept of Fairness

Fairness theory derives from principles of social exchange (Blau, 1964) and equity theory (Adams, 1965). Fairness theory is proposed to the individuals and organizational react to perceptions of fairness in an exchange relationship (Greenberg, 1987). The concept of fairness has been the focus of organizational research for a long time (Cochen-charash & Spector, 2001). Newly, it extends in inter-firm contexts such as strategic alliances (Luo, 2007) channel relationship (Kumar et al., 1995; Narasimhan et al., 2013) and consumer behavior (Blodgett et al., 1997).

Organizational fairness literature was embedded in Adams's equity theory which explains that individuals more concerned about the fairness in outcome rather than absolute outcome. According to equity theory a firm compares its ratio of output to input with that of the other referent firms and depending upon the perception of outcome, actor's in the exchange relationship infer whether the exchange is fairness (Pérez-Arechaederra et al., 2014).

First of all, distributive fairness has related to the results obtained in an exchange, considering the investment made (Adams, 1965). This type of fairness depends on the distribution of results or resources. Secondly, the organizational fairness has highlighted the importance of procedure by Thibaut and Walker (1975) work on complainant reactions to legal procedures introduced the process aspect of fairness, which is termed as procedural fairness. Their study showed that people are not just concerned about the outcomes they receive from an exchange but also the processes and procedures employed to arrive at those outcomes. Later on organizational scholars extended the concept of procedural fairness from legal settings to organizational settings (Leventhal, 1980). This was termed as procedural fairness.

Finally, Bies and Moag (1986) extended the fairness literature to posit interactional fairness as third dimension of fairness. They focus on the perceptions of quality of interpersonal treatment people receive and the way procedures and outcomes are implemented. Greenberg (1993) further explicated the concept of interactional fairness into dimensions labeled as interpersonal fairness reflecting aspects of politeness, dignity and respect in arriving at the outcomes. Other dimension was labeled as informational fairness reflecting on the explanation provided to people as to how procedures were employed and how the outcomes were determined.

Thus from the above discussion, theoretically, this study concludes that the concept of organizational fairness has four dimensions namely distributive, procedural, informational and interpersonal fairness. This study is extending the concept of organizational fairness and associated development in the concept of fairness or organizational fairness (Colquitt, 2001; Shaikh, 2016).

Table 1 Review of different conceptualization of fairness

Study	3-Factor of Fairness	4-Factor of Fairness
Brown et al. (2006)	✓	
Liu et al. (2012)		✓
Niehoff and Moorman (1993)	✓	
Narasimhan et al. (2013)	✓	
Miller et al. (2012)	✓	
Colquitt et al. (2001)		✓
Trada and Goyal (2017)	✓	
Pérez-Arechaederra et al. (2014)		✓
Moorman (1991)	✓	
Shaikh (2016)		✓
Colquitt (2001)		✓
Shaikh et al. (2017)	✓	
Cohen-Charash and Spector (2001)	✓	
Greenberg (1993)		✓
Bies and Moag (1986)	✓	
Devlin et al. (2014)		✓
Croonen (2010)	✓	
Cropanzano et al. (2002)	✓	
Konovsky (2000)	✓	
Liao and Rupp (2005)		✓
Chase (2018)		✓
Blodgett et al. (1997)	✓	
Cropanzano and Molina (2015)	✓	
Mayer et al. (2007)		✓

Source: Own Collaboration

2. Measurement of Organizational Fairness

The purpose of this study aims to investigate the theoretical dimensionality of organizational fairness and to test construct validity of a fairness measure. Further complicating debates over the dimensionality of organizational fairness has inconsistently and poorly been measured (Colquitt, 2001). Greenberg (1990) stated that many researchers have used one item measures or ad hoc measures for which no construct validity evidence was provided. He further suggested that "the state of current procedural fairness findings is such that the basis for a conceptually meaningful scale could be developed. Indeed, the time is ripe for such an endeavor to be undertaken."

While there is lack of consensus in organizational fairness and literature on the theoretical dimensionality of fairness, there are empirical evidences for one-factor model, two-factor model, three-factor model and four-factor model of the fairness construct (Colquitt, 2001; Shaikh, 2016). Moreover, the literature highlights studies suggesting different dimensions of fairness, which consider fairness to be one-factor model (Scheer et al., 2003), two-factor model including distributive and procedural fairness (Kumar et al., 1995; Narasimhan et al., 2013), three-factor model including distributive, procedural and interpersonal fairness (Shaikh et al., 2017; Trada & Goyal, 2017), and four-factor model including distributive, procedural, interpersonal, and informational fairness (Colquitt, 2001; Pérez-Arechaederra et al., 2014).

Distributive Fairness: Distributive fairness occurs to the extent that the allocation of an outcome is consistent with the goal of a particular situation, such as maximizing productivity or improving cooperation (Leventhal, 1976). Because the most common goal during most distributive fairness research has been maximizing productivity, most research focused on the equity rule (Adams, 1965; Leventhal, 1976). Although other allocation rules, such as equality or need, are certainly important in many situations, the distributive fairness measure in this study reflected Leventhal conceptualization of the equity rule to maximize generalizability (Leventhal, 1976). This recently developed four-items scale measure the degree to which rewards by employee are perceived to be related to performance inputs (Colquitt, 2001).

Procedural Fairness: Thibaut and Walker (1975) worked on complainant reactions to legal procedures introduced the process aspect of fairness, which was termed as procedural fairness. Their study has shown that people are not just concerned about the outcomes they receive from exchange but also the processes and procedures employed to arrive at those outcomes. The procedural fairness refers to the fairness in the processes and policies employed by the firm in the exchange relationship (Greenberg, 1990). Procedural fairness was items included in the scale focused on procedures designed to promote consistency, bias suppression, accuracy, correct ability, representativeness and ethicality (Colquitt, 2001). The items originated from the rules of procedural fairness developed by Leventhal (1980). Some of items included in this scale were based on the work of Colquitt (Colquitt, 2001).

Informational Fairness: The informational fairness scale refers to the subjective perception that the information received during a procedure was adequate, correct and sufficient (Colquitt, 2001).

Informational fairness explains the way in which exchange employed engage in communication, explanation provided to the procedures adopted, providing information at the right time (Bies & Moag, 1986). The informational fairness items also tap based on the work of Shapiro et al. (1999), who examined factors that improve the perceived adequacy of explanation. Greenberg (1993) defined informational fairness as the quality of the explanations provided regarding how decisions are made and thoroughness of the explanations given.

Interpersonal Fairness: Interactional fairness as third dimension of organizational fairness, it extended the fairness literature to posit by Bies and Moag (1986). Greenberg (1993) suggested that interactional fairness further consists of two distinct and separate dimensions of fairness, namely, interpersonal fairness and informational. He further defined interpersonal fairness as the degree of concern, respect, and sensitivity displayed by authority figures over outcomes received.

Research Methodology

1. Participant

The required sample size relied on factors such as the proposed data analysis techniques (Malhotra & Birks, 2007). One of the proposed data analysis techniques for this research was confirmation factors analysis (CFA), which is very sensitive to sample size and less steady when estimated from small samples (Tabachnick & Fidell, 2007). The literature review indicated that there were no generally accepted criteria for determining a precise sample size using CFA, which is a part of SEM (Hair et al., 2010). In order to test a construct validation of organizational fairness, Confirmation factors analysis was used. Minimum sample sizes in absolute Ns were the first rules of thumb, suggesting that any N > 200 offered adequate statistical power for data analysis (Hoe, 2008; Singh et al., 2016; Kyriazos, 2018). According to Hair et al. (2010), they had suggested that it was generally regarded that 100 was the practical minimum size for using SEM. As a results, 262 samples were suitable for using confirmation factors analysis (CFA) (Hoelter, 1983). Participants were 262 employees who were studying in Master degree, Bangkok. The mean age of the sample was 31.12, most respondents were female, and 50 percent were in management major and other were in marketing major. Work experience is average 9.17 years.

2. Measures

All of the measures used in this study were adopted from Colquitt (2001). Colquitt (2001) developed scales designed to measure four interrelated components of organizational fairness as follows: distributive, procedural, interpersonal, and informational fairness. According to Colquitt (2001), distributive fairness contained 4 items, procedural fairness contained 7 items, interpersonal contained 5 items, and informational fairness contained 4 items. In addition to his measures of distributive and procedural fairness,

he divided interactional fairness into two different components: interpersonal and informational fairness. All constructs were employed by using 10-point Likert scale ranging from “Strongly disagree” to “Strongly agree.” To measure fairness level, the researchers focused on employee’ perception of fairness in organization.

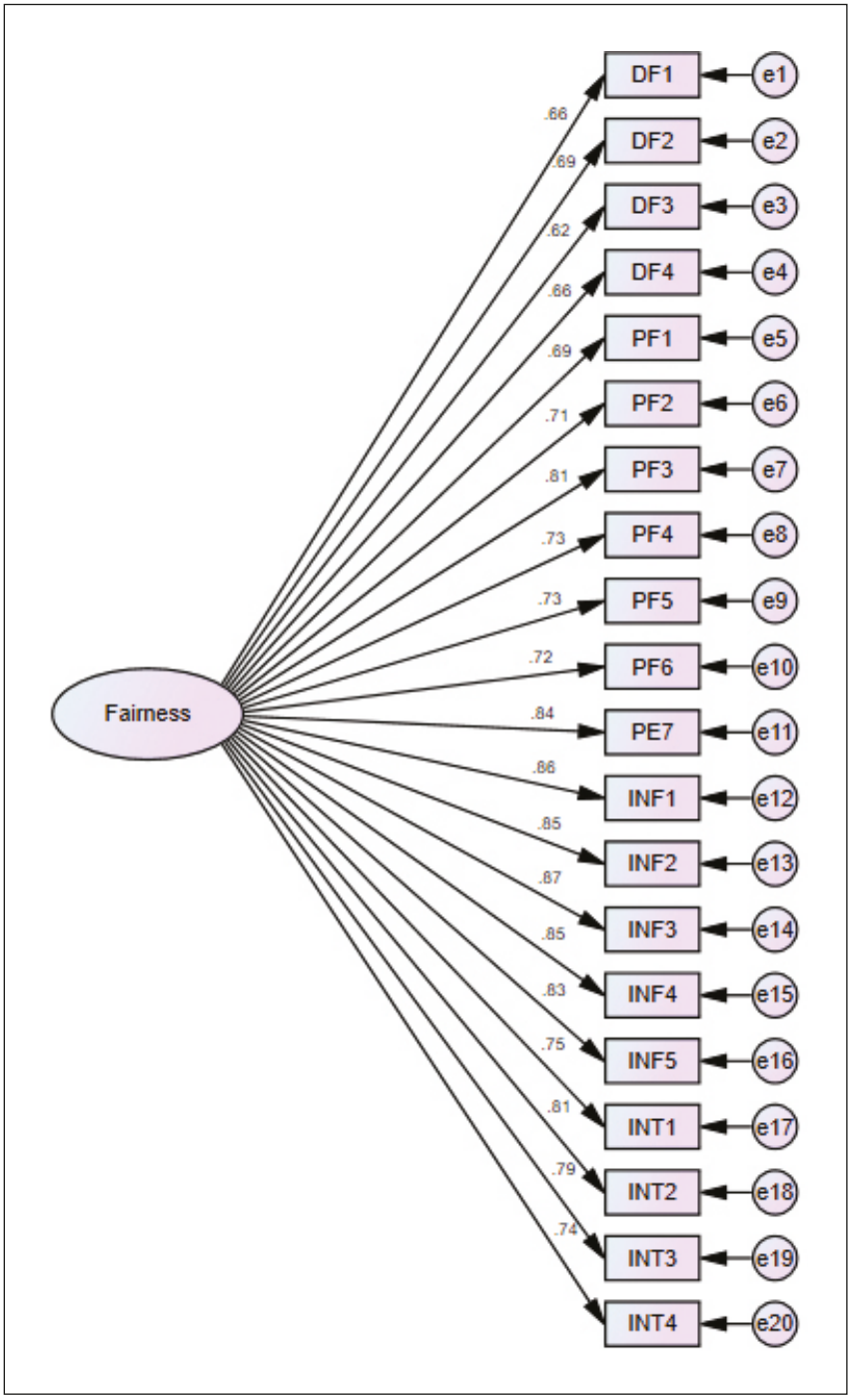

Figure 1 One-factor model of the organizational fairness

This study extended the concept of fairness and associated with the development in the concept of fairness on the context of Colquitt (2001) and Shaikh (2016). Colquitt (2001) developed scales designed to measure four interrelated components of organizational fairness. In addition to his measures of distributive and procedural fairness, he divided interactional fairness into two different components: interpersonal and informational fairness. Moreover, Shaikh (2016) mentioned that the study extends the concept of fairness and associated development in the context of Colquitt. Therefore, the study follows step by step procedure that suggested in the literature. This study conceptualized fairness as having four dimensions (Colquitt, 2001). Further, recent research has suggested there may be four distinct fairness types: distributive, procedural, interpersonal, and informational fairness (Pérez-Arechaederra et al., 2014).

Data Analysis and Results

The researchers performed confirmatory factor analysis (CFA) using maximum likelihood estimation method using AMOS 22.0 software to assess the construct validity of the measures and to determine whether the items actually reflected the construct.

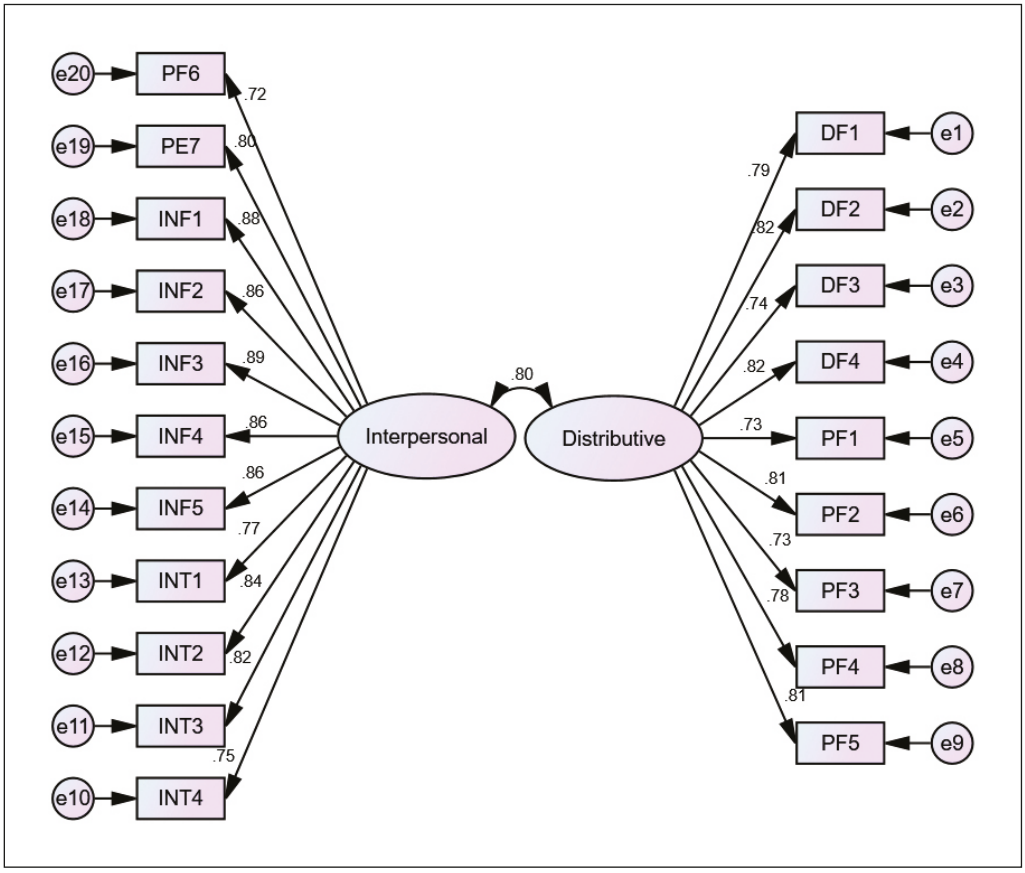

Figure 2 Two-factor model of the organizational fairness

The researchers compared the fit of five different model structures. The first was null-factor model with all the 20 items of fairness loading onto null construct as shown in Table 2. The second was one-factor model shown in Figure 1, in which all items in Table 2 were indicative of one organizational fairness factor. The third was two-factor model, with distributive and procedural fairness as one factor in which contained 9 items and the other 11 items subsuming in another factor termed as interpersonal and informational fairness as shown in Figure 2. The fourth was a three-factor model, with distributive procedural and interpersonal fairness. The three-factor model was soured from the results of the exploratory factor analysis in which the items of the informational fairness merged with the interpersonal fairness, which contained 9 items, 4 items of distributive fairness and 7 items of procedural fairness, as shown in Figure 3. The fifth was four-factor model, this four-factor model is currently the most commonly used conceptualization in the organizational fairness of Colquitt (2001). The final model was a four-factor version using the structure as shown in Figure 4.

The results of Confirmatory Factor Analysis (CFA) of the five completion model of organizational fairness are given in Table 2. The fit measures indicate that chi-square (χ^2) of the five models were significant (p-value = .003), by Comparative Fit Index (CFI), two fit indices compare the fit of a given model to a baseline model, usually one of which has no covariance among the variables. The closer to 1, better the fit, and a value of .9 is usually used as an arbitrary indicator of good fit (Bentler, 1990). The other index reported in Table 2 that indicated the Root-Mean-Square Error of Approximation (RMSEA). The researches have argued that values greater than .10 indicated as poor fit, values between .80 and .10 indicated as mediocre fit, values between .05 and .08 indicated as reasonable fit, and values less than .05 indicated as good fit (Brown & Cudeck, 1992). The initial comparison of the model fit indices suggested that the four-factor model of the organizational fairness constructs showed better fit indices as compared to the fit indices of the other five competing model.

Table 2 Comparison of the fit statistics of the measurement model with competing models

Model	χ^2	df	χ^2/df	p	GFI	CFI	RMSEA
1. One Factor	1579.38	170	9.29	0.000	0.57	0.73	0.17
2. Two Factor	1187.96	169	7.02	0.000	0.71	0.80	0.15
3. Three Factor	948.18	167	5.67	0.000	0.72	0.85	0.13
4. Four Factor	855.55	164	5.21	0.000	0.75	0.86	0.12
5. Final model - Four Factor	**81.35**	**50**	**1.62**	**0.003**	**0.95**	**0.99**	**0.04**

Note: N = 262, All χ^2 = Values are Significant at p < .001, df = Degrees of Freedom, p = Probability Level, GFI = Goodness of Fit Index, CFI = Comparative Fit Index, RMSEA = Root-Mean-Square Error of Approximation

The initial results of the model fit indices indicated a need for improving the fit indices and the parsimony of the model. Therefore, step by step, the researchers deleted the poorly performing items from measurement model. The criterion for deleting an items from the construct was high error covariance with other items, lower factor loading lower squared multiple correlation and cross-loading of the items onto other construct (Hair et al., 2006). The researchers deleted the poorly performing items in a sequential manner (Anderson & Gerbing, 1988). The model was re-estimated and re-analyzed to check the improvement in the model after every deletion of the items. Finally, the 13 items four-factor correlated model of organizational fairness as shown in the Figure 4. In total, the researchers deleted seven items from the measurement model. The fit indices of the finalized organizational fairness construct were given in Table 2.

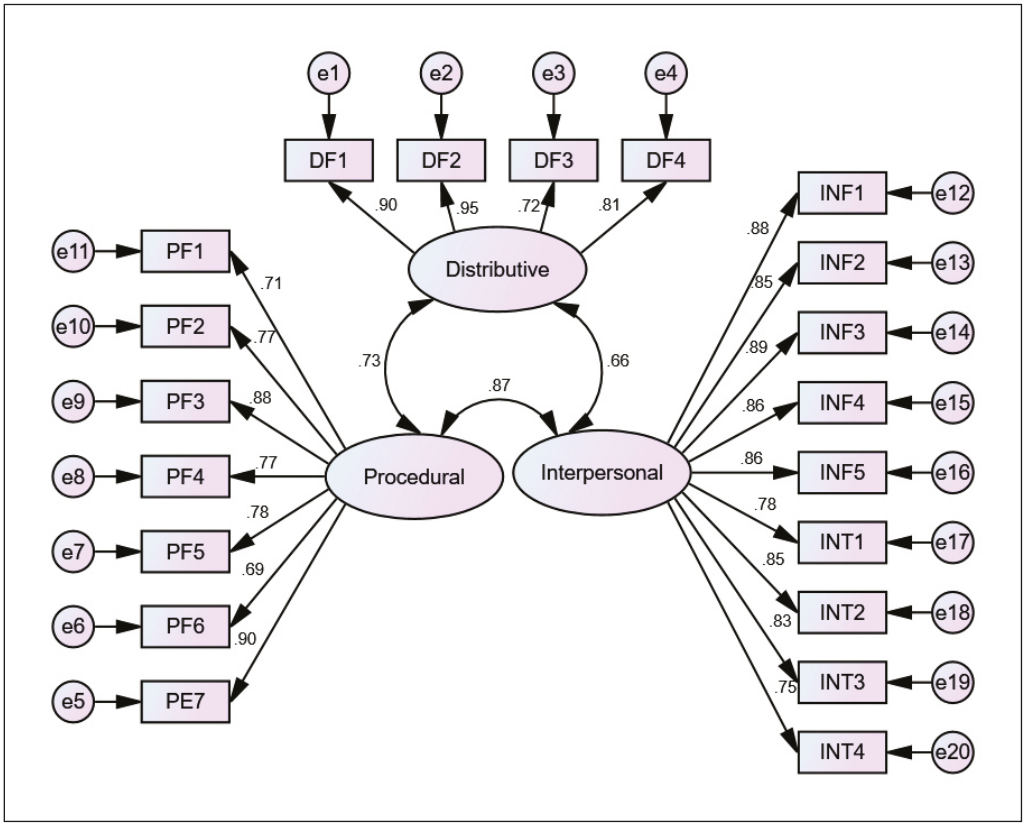

Figure 3 Three-factor model of the organizational fairness

The researchers compared the model fit statistic of the finalized measurement model with possible competing model. These different competing models were based on prior empirical literature on organizational construct (Moorman, 1991; Shaikh et al., 2017). The model fit statistics for the five-factor model structures were shown in Table 2. The best fitting model was the four-factor model, whereas the worst fitting model was the null-factor model. Model comparisons using the 95% confidence interval of

the RMSEA illustrated that the four-factor model was significantly better than the three-factor model, the three-factor model was significantly better than the two-factor model, the two-factor model was significantly better than the one-factor model, and the one-factor model was significantly better than the null-factor model. The four-factor model had the best overall fit and the model fit statistics was with the recommended threshold levels of the goodness of fit indices.

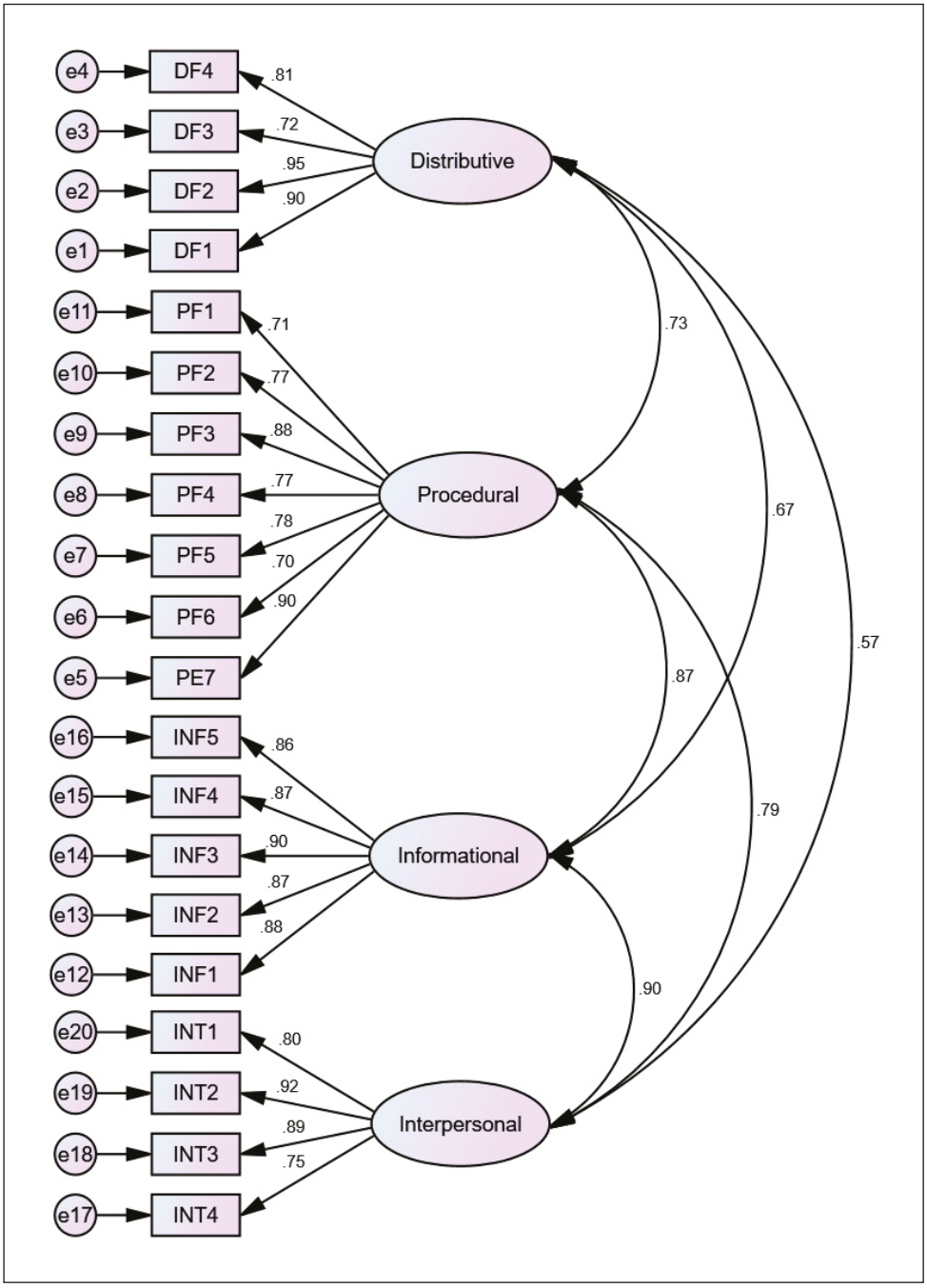

Figure 4 Four-factor model of the organizational fairness

The result of the measurement model also indicated that the four-factor of the organizational fairness constructs were significantly correlated to each other. Even though, they were significantly correlated, the constructs were distinct from each other. Our findings were consistent with Colquitt (2001) and Pérez-Arechaederra (2014), with suggestion that the four-factor model was the parsimonious of the organizational fairness construct.

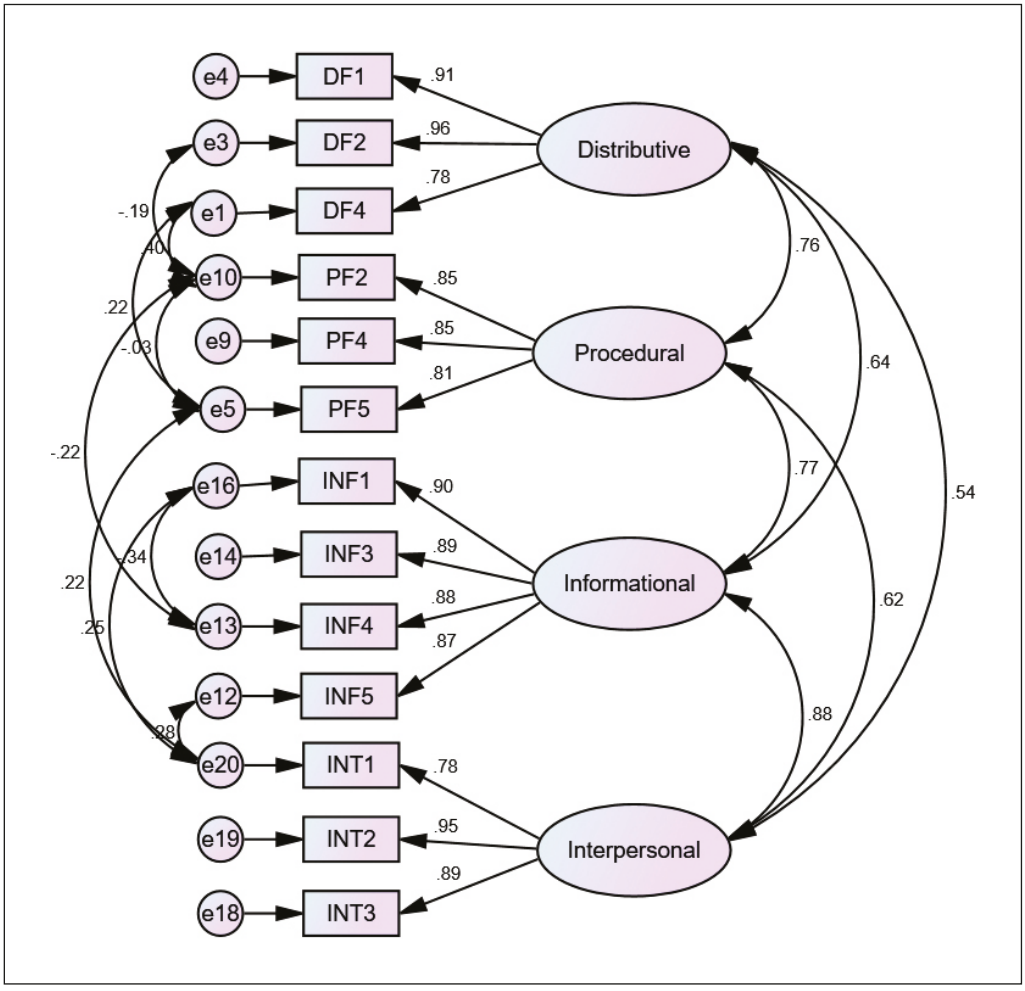

Figure 5 Measurement model of the finalized organizational fairness

1. Structure of the Measure

After examining behavior, the same items were retained in samples, grouped in four dimensions. Every item remained in the dimension initially assigned. This study retained 13 items of four dimensions of the organizational fairness construct as shown in the Figure 5. In total, the researchers deleted 7 items from the measurement model. The fit indices of the finalized organizational fairness construct were given χ^2 = 81.35, P = 0.003, GFI = 0.95, CFI = 0.95, RMSEA = 0.04 (see Table 2).

Table 3 Descriptive Statistics and Correlation

Variable	Code	Std. Loading	α	CR	AVE
1. Distributive			.913	.917	.788
	DF1	.909			
	DF2	.960			
	DF4	.785			
2. Procedural			.822	.877	.704
	PF2	.854			
	PF4	.850			
	PF5	.814			
3. Informational			.931	.934	.779
	INF1	.896			
	INF3	.886			
	INF4	.877			
	INF5	.873			
4. Interpersonal			.902	.906	.765
	INT1	.781			
	INT2	.945			
	INT3	.890			

Note: Std. Loading = Standardized Loading, α = Cronbach's Alpha, CR = Composite Reliability, AVE = Average Variance Extracted

2. Scale Reliability

The researchers tested the internal consistency of different aspects of fairness by calculating the Cronbach Alpha value. The researchers also analyzed the psychometric properties of different dimensions of the organizational fairness construct. The reliabilities of different dimensions of the organizational fairness construct ranges from .822 to .931 clearing the threshold level. The inter-item correlation was more than 0.7 (see Table 3). Organizational fairness scale had cleared the threshold levels of psychometric properties taking into consideration preliminary nature of the study (Nunnally, 1978; Bagozzi & Yi, 1988).

3. Convergent Validity

The researchers carried out convergent validity test. It confirmed whether items contribute to the higher proportion of variance in the construct. The researchers analyzed the correlation between different dimensions of the organizational fairness construct to investigate convergent validity. Empirical literature in organizational research literature suggest correlation between different dimension of the organizational fairness construct (Colquitt, 2001; Pérez-Arechaederra et al., 2014). It was evaluated by the strength of the loadings and the average variance extracted (AVE) of the construct. The results of the factor loading, construct reliability and AVE were given in Table 3. The standardized factor loading was significant (Anderson & Gerbing, 1988). The construct reliability value for distributive, procedural, informational and interpersonal fairness construct showed value well above the threshold value of 0.7. The AVE for the four dimensions of the organizational fairness construct were well above the threshold of 0.5 (Nunnally, 1978; Bagozzi & Yi, 1988). The findings suggested that all the factors in the measurement model had strong convergent validity (Anderson & Gerbing, 1988).

Table 4 Factor Correlations

Variable	1	2	3	4
1. Distributive Fairness	1.000			
2. Procedural Fairness	.715	1.000		
3. Informational Fairness	.615	.701	1.000	
4. Interpersonal Fairness	.522	.578	.841	1.000

Note: All correlation significant at the 0.01 level (two-tailed).

4. Discriminant Validity

Discriminant validity referred to the distinctness of the construct from other related constructs. The finalized four-factor model of the organizational fairness construct showed better goodness of fit indices as compared to the other competing model of the organizational fairness construct, which indicated discriminant validity of the organizational fairness construct (see Table 2). The discriminant validity among the construct was also tested using the procedures suggested by Fornell and Larcker (1981). To evaluate discriminant validity, the researchers compared the square root of AVE for each construct with inter-construct bivariate correlations between all of the construct pairs. The square root of AVE for each construct was found to be greater than inter-correlations for all of the pairs, denoting high discriminant validity that had given in Table 3, Table 4 and, Table 5.

Table 5 Composite reliability (CR), the square root of the average variance extracted (AVE) (in bold) and correlations between constructs (off-diagonal).

Variable	CR	AVE	1	2	3	4
1. Distributive Fairness	0.917	0.788	**0.888**			
2. Procedural Fairness	0.877	0.704	0.715	**0.839**		
3. Informational Fairness	0.934	0.779	0.615	0.701	**0.883**	
4. Interpersonal Fairness	0.906	0.765	0.522	0.578	0.841	**0.875**

Discussion and Recommendation

This study illustrated in detail the concept of fairness from different theoretical standpoints to propose a more comprehensive conceptualization and operationalization of fairness construct. As mentioned, the disagreements over structure of organizational fairness, along with inconsistent and poor measurement, have hindered theoretical and practical advancement in the literature. In additions, structure of organizational fairness has not been translated and developed for use in Thailand, and its reliability and validity in this population has not been tested. The purpose of the research paper is to investigate the theoretical dimensionality of organizational fairness and to test construct validity of a fairness measurement. Thus, result of this research study supported the construct validity of the organizational fairness measurement. The good fit of the four-factor structure, together with the patterns of inter-correlations, suggested discriminant validity. The good fit to the structural model, together with the statistical significance of its paths, suggested sufficiently predictive validity. In addition, the fact that the four organizational fairness factors predicted four different outcomes that supported treating them as distinct constructs. The researchers showed five different CFA models: null-factor model; one-factor model specifying a single underlying construct of organizational fairness; two-factor model specifying distributive and interpersonal fairness; three-factor model obtained from the exploratory factor analysis of the data in which informational fairness got subsumed into the interpersonal fairness; and four-factor model specifying the distributive, procedural, informational and interpersonal as the four-factor correlated model of fairness construct.

Results of our study suggested that organizational fairness was the best conceptualized as four-factor correlated dimension (Shaikh, 2016; Luo et al., 2015). Our results were to be viewed from the perspective of the employee in Thai context. Organizational literature conceptualized fairness with distributive, procedural, informational, and interpersonal fairness as four-factor correlated dimensions (Colquitt, 2001; Devlin et al., 2014). However, many have debated that informational and interpersonal

factor of fairness should combine together, if they were not distinct (Bies & Moag 1986), and in some studies interpersonal and informational fairness were not distinct and combined as one factor called interactional fairness (Colquitt, 2001; Moorman 1991; Shaikh et al., 2017; Luo et al., 2015). When interpersonal and informational fairness combined to form as one construct, the factor structure of the fairness construct was presented as three-factor correlated dimension (Cohen-Charash & Spector, 2001). In contrast, Greenberg (1993) had proved that interactional fairness further consists of two distinct and separate dimensions of fairness, namely, interpersonal and informational fairness, ultimately introducing a four-factor model of organizational fairness. Later, Colquitt (2001) had explored the dimensionality of organizational fairness and had provided an evidence of construct validity for a new fairness measure. Confirmatory factor analysis supported a four-factor model structure to measure, with distributive, procedural, interpersonal, and informational fairness. Moreover, Shaikh (2016) adapted the operational definition of the different dimension of the fairness construct from organizational fairness literature of Colquitt et al. (2001) to measure fairness, to get conceptualized fairness as having four dimensions comprising of distributive, procedural, interpersonal, and informational fairness. When all dimensions of fairness are distinct, the factor structure of fairness construct is four-factor correlated dimension (Colquitt, 2001; Shaikh, 2016).

As a results, our research had extended this line of organizational fairness construct argument from an inter-organizational relationship albeit with a different approach based on our empirical finding. Our study showed the theoretical factor structure of organizational fairness construct. The best model was re-estimated and re-analyzed to check the improvement in the model after every deletion of the items. Finally, the 13 items of four-factor correlated model of organizational fairness had shown in the result. Based on our research study, we can conclude that this is another empirical evidence of four-factor correlated model dimension on organizational fairness.

Limitation and Future Research

The study conceptualized fairness and derived on the validation and reliability scale in the context of employee perspective in Thailand. This study contributed to the emerging literature by extending the concept of organizational fairness. The researchers also contributed to the academic discourse on the construct of organizational fairness and provided empirical evidence. Measurement of organizational fairness highlighted in literature and tested in our study can be used to test the influence of fairness on relational outcome. Future research, this measurement can be further used to test the relationship between different dimensions of organizational fairness and the relationship outcomes from the perspective of the employee.

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