

The Dimension of Performance Appraisal Justice and Intention to Quit Work: The Mediating Role of Organisational Support, A Study Based on Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA)

Brenda Ranee Francis, Rusli bin Ahmad & Siti Mariam
Abdullah

Faculty of Cognitive Sciences and Human Development, University Malaysia Sarawak, 94300
Kota Samarahan, Sarawak, Malaysia

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Abstract

The objective of this study is to develop and validate the instruments that are to be used in the field study. The instruments were validated based on Exploratory Factor Analysis (EFA) procedure using the Statistical Package for Social Sciences (IBM SPSS) Version 25. The sample for the pilot study was comprised of 146 randomly selected policemen, and the field study was comprised of 513 randomly selected police personnel. Meanwhile, the data collected from the field study was analysed based on the Confirmatory Factor Analysis (CFA) using Smart Partial Least Squares (PLS) 3.0 software. The EFA procedure yielded seven constructs with 49 items, which were procedural justice (formal) = 4 items, procedural justice (interaction) = 3 items, distributive justice = 6 items, interpersonal justice = 6 items, information justice = 6 items, organisation support = 17 items, and intention to quit work = 7 items. Base on CFA procedures, composite reliability (CR), average variance extracted (AVE), loading indicator and discrimination validity was adequate and achieved the cut off points. Additionally, all items from 7 constructs in this study are valid and reliable. Therefore, the EFA and CFA procedures were aptly used to analyse the perception of the Royal Malaysian Police members in this study, providing a useful guide for future researches on the complete process and procedures in validating and reliability a questionnaire instruments.

Keywords: Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), Intention to Quit Work, Organisational Support and Performance Appraisal Justice.

Introduction

The concern for survival and sustainability is a major concern for organisations nowadays, as organisation success has to be continuous and in line with current changes. To ensure the continuous success of an organisation, a performance appraisal system is needed

(DeNisi & Smith, 2014) as it is the most important system in measuring the performance of employees and organisations (Ahmad, 2016; Gozukara et al., 2017; Ismail & Gali, 2017). The performance appraisal is meant to improve employees' performance and achieving their personal goals, such as salary increment, promotions, and increasing the organisations' effectiveness (DeNisi & Smith, 2014).

Nevertheless, the performance appraisal system can create a hostile environment in an organisation (Ahmad, 2016; Yazid et al., 2017), hence, emphasising employee satisfaction within the performance appraisal system is crucial in meeting employees' personal goals. Employees tend to raise an issue pertaining to the performance appraisal, especially if the procedure is unclear (Memon et al., 2019). Any dissatisfaction with the system may negatively impact employees' behaviour, such as reducing intrinsic motivation (Lee, 2019; Mohamed Aly & El-Shanawany, 2016) and increasing intention to quit work (Memon et al., 2019; Naeem et al., 2017). Conversely, a fair performance appraisal system will increase employees' positive attitudes and reduce the intention to quit work (Memon et al., 2019). A fair system can be achieved through actions by the supervisors – they need to improve social relationships among employees, identify the employees' problems and take actions to solve them, motivate, and make the employees feel valued. Such emotional support can reduce the intention to quit work among employees (Jo & Ellingson, 2019). Apart from that, recognising employees' contributions, respecting the employees, and supporting them will increase employees' motivation, commitment, and sense of responsibility towards the organisation (Eisenberger et al., 2001; Kurtessis et al., 2017).

Following those observations, this study objective is to validate the instrument used to measure the construct of justice' dimension in performance appraisal, organisational support, and intention to quit work among police personnel by incorporating instruments from previous studies. The items were measured using a 5-point interval scale ranging from 1 for 'strongly disagree' to 5 for 'strongly agree'. It should be noted that this study was submitted to the pre-test, pilot test, and field study. Content validity, face validity, and criterion validity were verified with the experts (Taherdoost, 2018) in a pre-test. The data was used for the EFA procedure in the pilot study stage, and used for the CFA procedure during the field study stage. In the field study stage, the CFA procedure was used for validation processes such as validity, convergent validity, discrimination validity, and composite reliability.

Literature Review

Performance appraisal justice is an employee's satisfaction of performance appraisal that is conducted by his supervisors (Jawahar, 2007) and the process is evaluated based on procedural justice, distributive justice, interpersonal justice, and information justice (Thurston & McNall, 2010). The performance appraisal system should be based on fair information, fair hearing, and evidence-based to establish fairness and trust in the system (Folger et al., 1992).

Procedural Justice

In 1975, Thibaut and Walker state that procedural justice fairness can be evaluated through its process control and decision control (Colquitt, 2001). According to Colquitt (2001), process control pertains to the view presented during the procedure, while decision control relates to the influence on the actual outcome of the performance. Later, Moorman (1991) introduced procedural justice comprised of two dimensions – formal procedural justice and

interaction procedural justice, which were derived from Leventhal (1980) and Thibaut and Walker (1975) respectively.

Formal procedural justice involves consistent and fair procedures that are based on accurate information, no suppression, the ability to overturn wrong decisions, and making decisions based on a code of ethics that is acceptable to all employees (Colquitt & Rodell, 2015; Leventhal, 1980). Meanwhile, the interaction justice procedure involves these control processes - process control (the process of giving the opportunity to speak), the control of decisions, the procedure to influence decisions, and the corrective procedure (Thibaut & Walker, 1975). In this study, the dimensions of formal and interaction procedural justice are used to assess the justice of performance appraisal among police personnel (Colquitt, 2001; Thibaut & Walker, 1975).

Distributive Justice

Distributive justice is the main justice dimension that is used to evaluate employees' justice in an organisation and is considered as a priority compared to other dimensions (Leventhal, 1980). It is the employees' perceived results such as salaries, promotions, and rewards (Folger & Greenberg, 1985) that is often the cause of employees' concern, particularly pertaining to the fair distribution of resources (Greenberg, 1990). The dimension is pioneered by Adam's (1965) Theory of Equity involving the ratio of yield to input – employees who contribute inputs such as effort, education, experience, and skills to achieve the organisation's goals will expect a fair ratio of output response as other employees (Adam, 1965). An adequate output ratio will create an unfair impression among the employees.

Interaction Justice

Interaction justice involves interpersonal communication relationships that are associated with organisational procedures (Bies & Moag, 1986). The fairness of the interaction depends on the fairness of the top management in establishing formal procedures and the characteristics of the supervisors' interpersonal relationships (Greenberg, 2008). Interaction justice is comprised of sub-dimensions named interpersonal justice and information justice (Greenberg, 1993). Interpersonal justice relates to the respect and dignity that are presented to the employees during their performance appraisal, which will be seen as honouring the employees if implemented fairly (Bies & Moag, 1986; Myhill & Bradford, 2013). Meanwhile, information justice pertains to one's perception regarding the explanation of justice that is received from socialising with others in the workplace.

Overall, five dimensions of justice are pertinent in managing performance appraisal. As stated by Colquitt and Rodell (2015), the evaluation of justice should consider its principles, which are formal procedural justice (Leventhal, 1980), interaction procedure justice (Thibaut & Walker, 1975), distributive justice, interpersonal justice (Bies & Moag, 1986; Greenberg, 1993) and information justice (Bies & Moag, 1986; Greenberg, 1993).

Intention to Quit Work

The intention to quit work stems from an employee's psychological thinking to voluntarily leave the organisation (Price, 1977 in Price, 2001; Watrous et al., 2006). It is the cognitive process of an employee train of thoughts to quit, find new employment, and leaving their current employment (Carmeli, 2005; Mobley et al., 1978) that comes from an unsatisfactory work environment and is typically the last step before quitting (Porter & Steers, 1973). The intention is a good predictor of possible future behaviour; retirement intentions

are used to measure future employments rates in several studies (Aladwan et al., 2013; Griffeth et al., 2000; Iverson, 1999; Mobley, 1977).

Organisational Support

Organisational support theory was developed by Eisenberger et al. (1986) based on the Theory of Social Exchange that was employed in studying the social exchange between employees and organisations. The organisational support theory pertains to the employees' perception of the extent to which the organisation values their contribution and cares about their well-being. Good organisational support will create a sense of belonging, improves job performance, and foster good interpersonal relationships within the organisation (Eisenberger et al., 2001). In addition, Eisenberger et al. (1986) also suggest that high organisational support motivates employees to be more committed to their tasks and can lower the absenteeism rate.

Methodology

Pre-Test

The questionnaire instruments used to measure constructs in this study were comprised of five dimensions derived from the studies on performance appraisal justice (Colquitt, 2001; Colquitt & Rodell, 2015; Gupta & Kumar, 2013), organisational support (Eisenberger et al., 1986), and intention to quit work (Kuvaas, 2006; Vigoda, 2000). The instruments were translated from the English Language into the Malay Language by maintaining the original principal to suit the culture and in line with recent studies (Al-Khamaiseh et al., 2020). Pre-test and pilot tests were conducted to confirm the reliability and validity of the instruments as the questionnaire was modified to suit the current situation (Awang et al., 2018; Muda et al., 2018). The original questionnaire was translated from the English Language into the Malay Language by three appointed linguists experts through a one-way translation technique (Behr, 2018; Bullinger et al., 1998; Hall et al., 2018; Mcgorry, 2000; Brislin, 1970). The questionnaire used in this study was fully in Malay to facilitate respondents' understanding. Please refer appendix 1-6, for Malay language version of questionnaire.

According to Czaja (1998), between three to eight experts are required to evaluate the instruments – this study employed three experts with over five years of working experience in the related field. The academic experts were appointed to review the questionnaire's instrument, such as content validity, face validity, and criterion validity (Muda et al., 2020). Apart from that, a police assistant superintendent from the Service Department, Sarawak, and ten policemen from the Police Headquarters in Bau District, Sarawak, were interviewed cognitively to identify terms that were not familiar to them (Czaja, 1998; Grimm, 2010; Hall et al., 2018). The group was asked to answer, comment, criticise, and make suggestions on the questionnaire instrument (Muda et al., 2020).

Exploratory Factor Analysis (EFA)

The EFA is used to remove ambiguous variables and retain items that are deemed important and meet the objectives, which is observed through the summarisation of each variable which retains its original meaning (Field, 2018; Hair et al., 2019). In addition, EFA is also used to solve multicollinearity problems that occur when one variable can be explained by another variable in the analysis (Hair et al., 2019). Awang et al. (2018) and Muda et al. (2018) further state that instruments that are adapted, modified, or translated into another language must be analysed using EFA to determine the actual factor in each variable. In this pilot study, EFA was performed in six stages (Moretti et al., 2019).

In the first stage, the Kaiser-Meyer-Olkin (KMO) value was ensured to be above 0.60 or 60% to indicate that the sample size was sufficient for the EFA process, as per Kaiser (1970, 1974). If the KMO was smaller than 0.6, the sample size should be expanded or the variables of the study needed to be redefined (Field, 2018). Then, the Barlett's of Sphericity test was employed to determine the suitability of items within a single variable and to assess if the EFA process can be interrupted by insufficient pre-determined conditions (Hair et al., 2019). The test compared the data with the identity matrix data to evaluate if the data was independent of a single reaction bias. It should be noted that the 'p' value should be less than 0.05 and should be significant (Hair et al., 2019).

Next, the communalities demonstrated that the measurements of the variables described by the model were below 0.5 or 50%, and should be eliminated (Hair et al., 2019). Then, the total variance explained (TVE) – a variance that explains and describes a model with a value of 0.6 or 60% as sufficient – states that eigenvalues lower than 1 should be eliminated (Hair et al., 2019). Afterwards, variables with KMO and communalities value below 0.5 were eliminated, and the data were reanalysed (Hair et al., 2019). Lastly, the loading factor was confirmed to be significant to the sample size.

In this study, a loading factor with a cut-off point value of 0.5 and above was used as the loading factor for determining sample size was between 120 and 150, in accordance with 146 respondents in this study (Hair et al., 2019). The limit value for Cronbach's Alpha was 0.70 and above (Nunnally, 1978), but it is recommended to interpret the loading factor with a limit value greater than 0.4 as it already explains about 16% of the variance in the variable (Stevens, 2002 in Field, 2018).

The variables tested were the justice dimensions of performance appraisal, organisational support, and intention to quit work. The instruments were validated through two statistical methods to check the factor structure extracted by each variable – the loading factor and Cronbach's Alpha. Meanwhile, varimax extraction and rotation methods were used to produce extraction factors with eigenvalues greater than 1.0. The variables were then reinterpreted to ensure the consistency of the meaning of each concept indicated by each item.

Pilot Study Data Analysis

Google Forms was used to create a questionnaire that was distributed to 250 randomly selected policemen at the Padawan District Police Headquarters, Sarawak, and 149 (59.60%) of them completed the questionnaire. The data was filtered, and 146 net data was transferred into IBM SPSS Version 25.0 software for analysis. This pilot study analysed the validity of the questionnaire content through the evaluation of the reliability of Alpha Cronbach and EFA.

Instruments

The instruments were comprised of 59 items – 26 items based on the performance appraisal justice (Colquitt, 2001; Colquitt & Rodell, 2015; Gupta & Kumar, 2013), 25 items based on the organisational support (Eisenberger et al., 1986), and 8 items based on the intention to quit work (Kuvaas, 2006; Vigoda, 2000). The Likert scale with 5-point interval was used, ranging from 1 for "strongly disagree" to 5 for "strongly agree".

Results

The results of the analysis of procedural justice factors in performance appraisal

Table 1 demonstrates that the KMO test value for procedural justice construct is 0.795, and Bartlett's Sphericity Test is significant with a value of χ^2 (409.480, N = 146), $p = 0.000 < 0.05$, demonstrating that the sample size is adequate for EFA. All items are retained as the loading factors value is over 0.5 (Hair et al., 2019) and the EFA process is carried on with varimax rotation analysis through principal component analysis.

In addition, the results show that the eigenvalue greater than 1 is distributed among two items out of the seven items analysed. With regards to Table 1, the eigenvalue is between 1.424 and 3.419. Item 3 and 7 are not included as their eigenvalue is less than 1, and the two items manage to explain the cumulative percentage of 69.185%. The cumulative percentage is adequate as it is more than 60% (Hair et al., 2019). All items are retained as the loading factor is over 0.5 (Hair et al., 2019).

Table 1

Procedural Justice Factor Analysis

Code Item	Factor loading	
	Component 1	Component 2
	Procedural Justice Formal	Procedural Justice Interaction
AP5	.833	
AP3	.856	
AP7	.793	
AP4	.816	
AP1		.747
AP2		.854
AP6		.752
Cronbach's Alpha	0.861	0.727
Eigenvalue:	3.419	1.424
Percentage of variance explained:	69.185%	
KMO:	0.795	
Bartlett's Sphericity Test:	409.480	
df:	21	
Significant:	0.000	

The Results of the Analysis of Distributive Justice Factors in Performance Appraisal

Table 2 shows that the KMO test value for distributive justice construct is 0.841 which is more than 0.6 (Kaiser, 1970, 1974), and Bartlett Sphericity Test is significant with the value of χ^2 (775.391, N = 146), $p = 0.000 < 0.05$, showing that the sample size is adequate for EFA analysis. The value of $p = 0.000 < 0.05$ explains the existence of a relationship between the items of the variable, allowing the continuation of the EFA process with varimax rotation analysis through principal component analysis. The eigenvalue for item 1 is 4.377, while item 2 to 6 are not included because the eigenvalue is less than 1, explaining the cumulative percentage of 72.954%. The cumulative percentage of this factor is acceptable to meet the

percentage variance as it is more than 60% (Hair et al., 2019). All items are retained as the loading factor is over 0.5 (Hair et al., 2019).

Table 2

Distributive justice factor analysis in performance appraisal

Code Item	Factor loading Component 1 Distributive justice
AD1	.826
AD2	.876
AD3	.889
AD4	.905
AD5	.820
AD6	.804
Cronbach's Alpha:	0.924
Eigenvalue:	4.377
Percentage of variance explained:	72.954%
KMO:	0.841
Bartlett's Sphericity Test:	775.391
df:	15
Significant:	0.000

The Results of the Analysis of Interpersonal Justice Factors in Performance Appraisal

Table 3 shows that the KMO test indicates that the measure of the adequacy index sample is 0.879 (Kaiser, 1970, 1974) and that the Bartlett Sphericity Test is significant with a value of χ^2 (888.943, N = 146), $p = 0.000 < 0.05$, showing that the sample size in this study is sufficient for factor analysis. In addition, the value of $p = 0.000 < 0.05$ explained the existence of a relationship between the items and the variable. Apart from that, the extraction value for all factor loadings is between 0.100 and 0.839. Since the extraction communalities value for item AI4 is below 0.5, it is removed. The eigenvalues that are formed from item 1 from 6 items are analysed after removing item AI4. The eigenvalues greater is than 1, which is 4.752, for item 1 and this item manages to explain the cumulative percentage of 79.196% (Hair et al., 2019). The cumulative percentage of this factor is acceptable to meet the percentage variance as it is more than 60% (Hair et al., 2019).

Table 3

Analysis of interpersonal justice factors in performance appraisal

Code Item	Factor loading Component 1 Interpersonal justice
AI1	.883
AI2	.894
AI3	.918
AI5	.831
AI6	.915
AI7	.896
Cronbach's Alpha:	0.947
Eigenvalue:	4.752
Percentage of variance explained:	79.196
KMO:	0.879
Bartlett's Sphericity Test:	888.943
df:	21
Significant:	0.000

The Results of the Analysis of Information Justice Factors in Performance Appraisal

Table 4 shows that the KMO tests the measure of the adequacy index sample is 0.876 (Kaiser, 1970, 1974), and that the Bartlett Sphericity Test is significant with a value of χ^2 (916.272, N = 146), $p = 0.000 < 0.05$, showing that the sample size in this study is sufficient for factor analysis. The $p = 0.000 < 0.05$ explains the existence of a relationship between the items of the variable. Furthermore, the EFA process is continued with a varimax rotation analysis through principal component analysis. In addition, the eigenvalue greater than 1, which is 4.818 for item 1, explaining the cumulative percentage of 80.298% (Hair et al., 2019). The cumulative percentage of this factor is acceptable to meet the percentage variance as it is more than 60% (Hair et al., 2019). The rotating component matrix in the group of components has been arranged in one component, and no items were removed due to the value of more than 0.5 (Hair et al., 2019).

Table 4

Analysis of information justice component in performance appraisal

Code Item	Factor Loading
	Component 1 Information Justice
AM1	.861
AM2	.854
AM3	.903
AM4	.908
AM5	.919
AM6	.929
Cronbach's Alpha:	0.951
Eigenvalue:	4.818
Percentage of variance explained:	80.298
KMO:	0.876
Bartlett's Sphericity Test	916.272
df:	15
Significant:	0.000

The Results of Organisational Support Factor Analysis

Table 5 shows that the value for the KMO index sample is 0.923 (Kaiser, 1970, 1974) and the Bartlett Sphericity Test is significant with a value of χ^2 (2691.847, N = 146), $p = 0.000 < 0.05$, showing that the sample size in this study is sufficient for EFA analysis. The $p = 0.000 < 0.05$ explains the relationship between the items. In addition, the extraction values for all 25 items range from 0.224 to 0.721. The results show that not all items can be used to explain the factors. The extraction communalities value for items SO7, SO8, SO12, SO13, SO15, SO16, SO17, and SO24 are dropped from the item list as they have a value of less than 0.5 (Hair et al., 2019).

The EFA process is continued with varimax rotation analysis through principal component analysis. The eigenvalues is 10.258, which is greater than 1, and this component manages to explain the cumulative percentage of 60.342% (Hair et al., 2019). Therefore, cumulative percentage of this factor is acceptable to meet the percentage variance as it is more than 60% (Hair et al., 2019).

Table 5

Analysis of organisational support component

Code Item	Factor Loading
	Component 1 Organisational Support
SO2	.866
SO4	.853
SO3	.853
SO10	.843
SO22	.822
SO1	.814
SO9	.774
SO11	.757
SO21	.755
SO5	.747
SO19	.740
SO25	.731
SO23	.729
SO20	.728
SO18	.724
SO14	.721
SO6	.721
Cronbach's Alpha:	0.958
Eigenvalue:	10.258
Percentage of variance explained:	60.342 %
KMO:	0.923
Bartlett's Sphericity Test:	2691.847
df:	300
Significant:	0.000

The Results of Intention Quit Work Component Analysis

Table 6 shows that the value for KMO adequacy of the index sample is 0.867, and the Bartlett Sphericity Test is significant with a value of χ^2 (793.501, N = 146), $p = 0.000 < 0.05$, showing that the sample size in this study is sufficient for EFA analysis. The $p = 0.000 < 0.05$ explains the existence relationship between items (Hair et al., 2019). The extraction communalities value for item NBK8 is below 0.5; therefore it is dropped from the item list (Hair et al., 2019).

The EFA process is continued with varimax rotation analysis through principal component analysis. The eigenvalues is 4.988, which is greater than 1, and this item manages to explain the cumulative percentage of 62.345% (Hair et al., 2019). Therefore, cumulative percentage of this factor is acceptable to meet the percentage variance as it is more than 60% (Hair et al., 2019).

Table 6

Analysis of intention quit work component

Code Item	Factor Loading Component 1
NBK1	.810
NBK2	.881
NBK3	.853
NBK4	.880
NBK5	.776
NBK6	.746
NBK7	.709
Cronbach's Alpha:	0.905
Eigenvalue:	4.988
Percentage of variance explained:	62.345 %
KMO:	0.867
Bartlett's Sphericity Test:	793.501
df:	28
Significant:	0.000

Reliability Analysis

The coefficient value analysis for all construct have Cronbach's Alpha values exceeding 0.7 with all variables have high strength of reliability (Nunnally, 1978).

Confirmatory Factor Analysis (CFA)

The CFA is performed once the process of EFA is completed and analysed through a field study. The questionnaire for this study is now comprised of 7 constructs with 49 items which are procedural justice (formal) = 4 items, procedural justice (interaction) = 3 items, distributive justice = 6 items, interpersonal justices = 6 items, information justice = 6 items, organisational support = 17 items, and intention to quit work = 7 items. A field study was conducted, and a Google Forms link was distributed to 547 respondents from four district police headquarters in Kuching, Sibul, Bintulu, and Miri. A total of 513 samples were screened and used as CFA measurement samples in this study, which were later analysed using the Smart Partial Least Squares (PLS) 3.0 software (Ringle et al., 2015). Anderson and Gerbing (1988) stated that the model should be tested using two approaches. Firstly, the validity and reliability of the questionnaire instrument should be tested, and this study does so based on the guidelines proposed by Hair et al., (2019) and Ramayah et al., (2018). Secondly, the structural model should be tested using the hypotheses proposed in this study.

Furthermore, the Measurement Model Assessment assesses the loading indicator, convergence validity (average variance extracted (AVE)), composite reliability (CR), and discriminant validity, with the values should be as follows: AVE > 0.5, indicator loading > 0.5, and CR > 0.7. Based on Table 7, all AVE values are higher than 0.5, and all CR values are higher than 0.7. Any loading indicator with values below 0.708 is acceptable if the AVE and CR fulfilled their requirements (Hair et al., 2017; Hair et al., 2019; Hair et al., 2018). According to Hair et al (2019), AVE is calculated by taking the mean value of the average loadings of each indicator. Based on Table 7, all constructs show a value over 0.5, suggesting that they are adequate for the measurement model.

Table 7

Measurement models - Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Loading indicator	AVE >0.5	CR >0.7
Procedural Justice (Interaction)	AP1	0.814	0.644	0.844
	AP2	0.713		
	AP6	0.872		
Procedural Justice (Formal)	AP3	0.842	0.749	0.922
	AP4	0.845		
	AP5	0.913		
	AP7	0.859		
Distributive Justice	AD1	0.746	0.655	0.919
	AD2	0.868		
	AD3	0.87		
	AD4	0.796		
	AD5	0.743		
	AD6	0.824		
Interpersonal Justice	AI1	0.766	0.583	0.893
	AI2	0.803		
	AI3	0.768		
	AI5	0.735		
	AI6	0.738		
	AI7	0.769		
	Information Justice	AM1		
AM2		0.712		
AM3		0.835		
AM4		0.798		
AM5		0.843		
AM6		0.84		
Organisational Support	SO1	0.695		
	SO10	0.757		
	SO11	0.641		
	SO14	0.727		
	SO18	0.705		
	SO19	0.789		
	SO2	0.733		
	SO20	0.751		

	SO21	0.793	0.520	0.948
	SO22	0.78		
	SO23	0.602		
	SO25	0.734		
	SO3	0.770		
	SO4	0.767		
	SO5	0.679		
	SO6	0.599		
	SO9	0.699		
	NBK1	0.869		
	NBK2	0.883		
Intention to Quit Work	NBK3	0.878		
	NBK4	0.870	0.738	0.952
	NBK5	0.881		
	NBK6	0.785		
	NBK7	0.845		

The discrimination validity is assessed by measuring the value of Heterotrait-Monotrait Ratio (HTMT) inferential using the bootstrapping technique. The HTMT value suggested by Henseler et al., (2015), Franke and Sarstedt (2019), and Hair, Risher, Sarstedt, and Ringle (2019) is ≤ 0.85 or ≤ 0.90 in relaxation mode (Gold et al., 2001). Referring to Table 8, the HTMT values in this study are lower than 0.90. It can be concluded that the respondents understood the seven constructs as different measurement variables, showing that the items in the seven constructs are valid and reliable.

Table 8
Discrimination Validity (HTMT)

Construct	1	2	3	4	5	6	7
1. Distributive Justice							
2. Interpersonal Justice	0.702						
3. Information Justice	0.644	0.886					
4. Procedural Justice (Formal)	0.725	0.798	0.855				
5. Procedural Justice (Interaction)	0.204	0.221	0.17	0.134			
6. Intention to Quit Work	0.15	0.102	0.106	0.109	0.096		
7. Organisational Support	0.508	0.524	0.554	0.581	0.222	0.324	

Implications and Recommendations

The results indicate that the questionnaire instruments to measure the dimensions of performance appraisal justice, intention to quit work, and organisational support as a mediator among police personnel are reliable and valid, which can be used to modify the instruments used in Western countries. The questionnaire instrument is adapted to suit the local context and work culture with appropriate language terms in Malaysia. Moreover, the EFA and CFA processes demonstrate five exogenous constructs of performance appraisal justice that is comprised of procedural justice (procedure), procedural justice (interaction), distributive justice, interpersonal justice, and information justice. With regards to endogenous constructs, there is only one construct for organisational support and one construct for intention to quit work.

Previous studies have only measured the dimensions of procedural justice as a whole, but the EFA and CFA demonstrate that procedural justice is made of two components – procedural justice (formal) (Leventhal, 1980) also known as process control, and procedural justice (interaction), also known as decision control (Thibaut & Walker, 1975). The components are rarely discussed within the context of Malaysia's work culture, especially within the uniformed sector and other government services. This study also assesses the high power distance practice in Malaysia (Bhagat & Hofstede, 2002; Hofstede, 2001), which can be seen as a source of inequality in terms of status, recognition, and reward. This study provides a framework to evaluate how the justice dimensions of performance appraisal and organisational support affect employees' intention to quit work, which can be used by future researchers in the context of the government sector or other uniformed bodies in Malaysia.

Conclusion

The study indicates that the value of Cronbach's Alpha coefficient is high for all variables, and the pilot study demonstrates that the questionnaire instrument is highly reliable (Nunnally, 1978). For the EFA procedure, the dimensions of justice were re-explored after modifying items accordingly, and the loading factor of the dimensions is as per the recommended value of over 0.5 after those with values below 0.5 were removed (Hair et al., 2019).

Only 49 out of 59 items in the original questionnaire were retained – items AI4, SO7, SO8, SO12, SO13, SO15, SO16, SO17, SO24, and NBK8 were dropped due to their low value. The EFA was used to explore the items while the CFA was used to validate the items in this study. It should be noted that content validity, face validity, and criteria validity were performed during the pre-test.

In all, this study successfully developed and validated instruments to measure and study the dimensions of performance appraisal justice, intention to quit work, and organisation support as a mediator among police personnel in the Sarawak Contingent, in addition to contributing to the studies on PDRM involving EFA and CFA. This study can be a guide for future researches pertaining to the process and steps to conduct EFA and CFA to validate the questionnaire instrument.

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Corresponding Author

Brenda Rane Francis

Faculty of Cognitive Sciences and Human Development, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia

Email: brenda14956@yahoo.com

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