

Application of Confirmatory Factor Analysis(CFA) to Test Forecasting Model on Organizational Citizenship Behavior among State-owned Private University Lecturers in Malaysia

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Abstract

Organizational Citizenship Behavior is a voluntary behavior resulted from the lecturers' own encouragement to offer something beneficial to organization. There are many factors that contribute to a lecturer's behavior. In this study the factor of justice by employer towards subordinates becomes the main factor to be looked at. Psychological capital is made as an intermediary in this relation to see whether the nature of the lecturer can be prompted to be better. This instrument is administered to 254 respondents among lecturers in 4 private universities owned by state government in Malaysia. Amos software version 7 was used to analyze data. This study uses original instrument and being translated into Malay language to facilitate the respondents in answering the questions. The model of the research complies with the recommendations made by past researchers with the value of RMSEA (0.071), GFI (0.909), IFI (0.910), CFI (0.909) and PGFI (0.636). This study tests the hypothesis of 'Psychological Capital which acts as Mediating Variable in the Relation Between Organizational Justice with OCB'. The result shows that Psychological Capital acts as a mediator in this study. In sum, the importance of OCB is to give benefit to organization because the value of behavior does not cost the employer anything because voluntary action can give huge advantages to institutions. It has to be supported with the whole state of being among lecturers as far as the lecturers are able to remain strong emotionally and physically in the competition of education industry particularly private institutions which has become more challenging.

Keywords: Organizational Citizenship Behavior (OCB), Psychological Capital (PC), Organizational Justice (OJ)

Introduction

Organizational Citizenship Behavior (OCB) is voluntary behavior that exists in any lecturer whether public higher learning institution or private higher learning institution. According to Mokhtar et al (2020) there is one dimension in the OCB namely altruism that has similar meaning with Islamic concept in Islam. *Ehsan* means to perform a work and not expecting any reward. According to Amauche Ehido et al (2019) the success of education sector depends on involvement, effort and contributions from academic staff and their professionalism. The work of academicians in Malaysia is becoming more challenging because the requirement to achieve key performance indicator (KPI) and continuous request from universities and stakeholders in producing excellent graduates and able to work in this country (Darus & Ahmad, 2016). OCB is a positive behavior and very beneficial to organization. According to studies made by past scholars, the enhancement of OCB behavior at workplace, employees can achieve better performance. Widyaningrum & Rachman (2019); Isyanto (2019); Asari et al (2018); Ismail et al (2018); Lestari et al (2018); Pramesty et al (2020); Yuesti et al (2020) find that there are positive relations between OCB and employees' performance.

Problem Statement

According to Mazlan (2021) the turnover among lecturers particularly at private higher learning centers is alarming. Lecturers at private higher learning centers are private employees where all advantages, benefits and welfare are determined by employment contract which was agreed upon during the recruitment process made. The change of Private Higher Education Institutions Act 1996 allows private higher learning centres to offer full - fledged degree programs and allowing foreign universities to operate branches in Malaysia in order to prosper the number of private higher learning centres (Cheng et al., 2020). Lecturers at private higher learning centres are the frontliners who deal with clients (Manogharan et al., 2018). They need to possess high skills to entertain students and parents' attitude. All complaints, problems and queries regardless of times and circumstances from parents and students need to be taken seriously as well as quick action in order to maintain organization's reputation and to avoid any side effect namely criticism on social media that would tarnish the good name of an organization and the marketing of of service product. Therefore, lecturers' commitment is needed in steering an organization to move forward. In addition, research findings about PC show that through the development of psychological capital can enhance the organization commitment, work performances, shaping positive attitude towards work, reducing work stress and able to increase psychological well-being. Thus, human resource development should change their strategies by increasing the psychological capital (self confidence, hope, optimism and resilience) so as to decrease the negative effect of work stress and to intensify work commitment (Avey et al., 2009).

The investment of PC aims to enhance sufficient efficiency to overcome globalization challenges and to develop organizational citizenship, and later directed towards the effectiveness of organization (Pradhan et al., 2016)

Employees are an organization's important element because they are the ones who start their formation and they are an important part in making decision and the survival of the organization (Buchko et al., 2017)

Diverse employee characteristics will effect their behavior in completing the task. One characteristic that influences the behavior of every employee is PC, which enables the employee to increase performance in work environment (Kim et al., 2017). The employee is also mentioned by Tuzun et al (2018) in their research. In fact, a study by Puteh et al (2022): Mokhtar et al (2020) also emphasizes the necessity of OCB not only as a significant predictor but also according to (Udin & Yuniawan, 2020). Psychological capital can enhance OCB and further giving advantage to the organization.

Methodology

This study uses original instrument and the researchers translate it into Malay Language in order to adapt it to the culture and understanding of the respondents.

Table 1

The list of detailed research instrument used

No.	Variables	Instruments	Taken from	No. of Items
1	(DV)	OCB	Podsakoff et al (1990)	20
2	(Mediator)	PC	(Luthan et al., 2007)	23
4	(IV)	OJ	Moorman (1993)	20

A questionnaire measures employee judgement towards OJ. This questionnaire is designed by (Moorman, 1993). In order to measure OCB, it uses the measuring tool; the OCB instrument developed by (Podsakoff et al., 1990). Meanwhile, in order to measure the PC a questionnaire developed by (Luthan et al., 2007) is used. All these instruments have gone through the Exploratory Factor Analysis (EFA) for pilot test data. According to Awang (2018) EFA has to be done if an instrument is developed by the researcher, adapted or translated into another languages. Therefore, in this study, although the researcher uses the original instrument, however there is translation process that takes place into the Malay language from English. So, the EFA analysis has to be made for all test tools. The result of EFA analysis shows overall test tools which have undergone several processes conveys high reliability. Therefore, the actual field study can be conducted.

Table 2

Adaptation from an article Kyriazos (2018) which cites sources from Newsom (2018).

Estimator	Sample size Recommendation	Studies recommending it
ML with multivariate Normal data (continuous)	1)100 2)200-400 3)50-460	1)Anderson & Gerbing (1984) 2)Jackson (2001) Elf et al. (2013)
Bootstrap with non normal continuous data	>200 - 1000	Nevitt & Hancock (2001)
Robust DWLS/WLSMV with binary or ordinal data	>200 - 500	Bandalor (2014) Forero, Maydeu-Olivares, & Gallardo-Pujol (2009)
MLR for binary and ordinal variables	>200 - 500	Bandalor (2014)

According to Jonathan Sarwono the ideal sample measurement for SEM is preferably between 200 - 400. While, according to Hair et al (2018) the recommended sample is between 150 until 400. This study consists of 257 respondents among lecturers from 4 wholly state-owned universities as depicted in the table below:

Table 3

Respondents' Demographic Profile

Types of Demography	Frequency	Percentage (%)
Gender		
Male	99	39.0
Female	155	61.0
Total	254	100.00
Higher Learning Institutions		
UNIMEL	77	30.3
KUIPSAS	56	22.0
USAS	64	25.2
UNISHAMS	57	22.4
Total	254	100.00

Table 4.1 shows the number and percentage of respondents according to gender. From the demographic analysis, the data shows that male respondents are 99 (39.0%) whereas female respondents are 155 (61.0%). This shows that respondents' composition among female lecturers are more in comparison to male lecturers. Further, based on the data ratio from the category of Higher Learning Institutions, majority of the respondents are among 77 UNIMEL lecturers(30.3%), followed by 64 lecturers from USAS (25.2%), 57 lecturers from UNISHAMS (22.4%) and finally 56 lecturers from KUIPSAS (22.0%)

The Validity of Convergent and The Reliability of Research Construct

The table below is the average value of the variance extracted from research data. The required value that has to exceed the minimum level is $AVE > 0.50$. The value has to exceed the minimum value that has already been determined in order to achieve the reliability of the latent construct measurement model in the study (Hair, 2018; Awang 2014; Awang 2015). However, Wan Sulaiman et al (2020) explains in his study $AVE > 0.30$ is sufficient to prove that the test tool is suitable to be used particularly in the social sciences field.

Based on the accuracy of a measurement instrument that is used to measure a construct used in a study. According to Awang (2012; 2014; 2015); Hoque et al (2017), the validity of a construct shows how far a statement in the item that is used can measure the intended measured construct by the researcher. According to Awang (2011;2012; 2014; 2015) construct validity is achieved when all Fitness Indexes construct have fulfilled all the set level. Table 1 shows three categories of Fitness Indexes that have to be achieved by a measurement construct model, which is the Absolute Fit, Incremental Fit and Parsimonious Fit.

Table 4

Category of Indexes and the level of acceptance for every index (Source: Awang 2015)

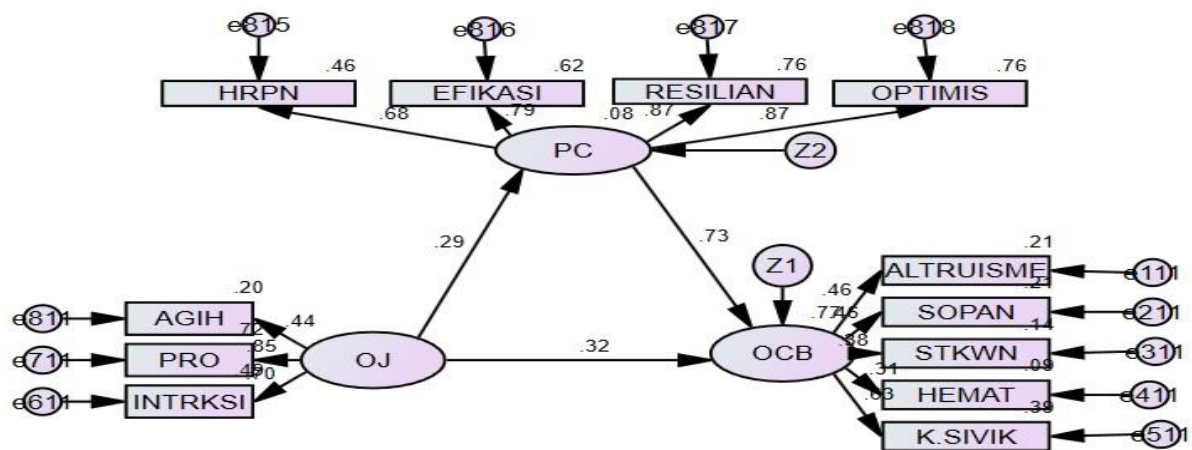
Categories	Indexes	Level of Acceptance
Absolute fit	RMSEA	RMSEA < 0.1 is acceptable (best if value < 0.08)
Incremental fit	AGFI	AGFI>0.90 (GFI.0.85 is acceptable if the model is complex)
	CFI	CFI >0.90 (GFI.0.85 is acceptable if the model is complex)
	TLI	TLI >0.90 (GFI.0.85 is acceptable if the model is complex)
	NFI	NFI >0.90 (GFI.0.85 is acceptable if the model is complex)
Parsimonious fit	Chi-Square	P-value> 0.5

Table 5

Findings of the Validity of Convergent and the Reliability of Research Construct

Construct	Sub-Construct	Weight Factor	Reliability Compositt	AVE >.05
OCB	Altruism	0.65	0.689	0.427
	Courtesy	0.70	0.658	0.490
	Sportsmanship	0.64	0.638	0.430
	Conscientiousness	0.75	0.726	0.575
	Civic Virtue	0.63	0.671	0.409
PC	Hope	0.68	0.778	0.469
	Efficacy	0.75	0.891	0.578
	Resilience	0.76	0.853	0.596
	Optimism	0.74	0.788	0.554
PJ	Distribution	0.81	0.854	0.662
	Procedural	0.77	0.818	0.602
	Interaction	0.78	0.919	0.621

Full Model Testing



ChiSquare=130.256; P=.000; DF=51
 ; CMINDF=2.554; RMSEA=.078
 ; GFI=.921; IFI=.922; TLI=.897
 ; CFI=.920; PGFI=.602;

Figure 1: The Result of the Confirmatory Factor Analysis for Organizational Justice

Figure 1 shows the result of the confirmatory factor analysis (CFA) for the research full model measurement. The result of the analysis shows that the model fits perfectly with the Model Fitness Value as in the Table 7 below and later the findings comply the rule of thumb which was set by the previous scholars. Only that TLI does not comply with the conditions however, the rest have shown a good value and fits the Goodness-of-fit condition by Hair et al (2019).

Table 6

Summary of the Matching Model for Organizational Justice

Model	Chi-Square (x2)	df	RMSEA	GFI	IFI	TLI	CFI	PGFI
	190.755	84	.071	.909	.910	.886	.909	.636

Table 7

Value of critical ratio (C.R.) for the variables

Variables	Standardizes Regression Weight Estimate	S.E	C.R	P
PC <----- OJ	.29	.052	2.054	.040
OCB <----- OJ	.32	.029	3.064	.002
OCB <----- PC	.73	.070	5.439	***

HYPOTHESIS: Psychology acts as mediating variables in the relationship between Organizational Justice and OCB

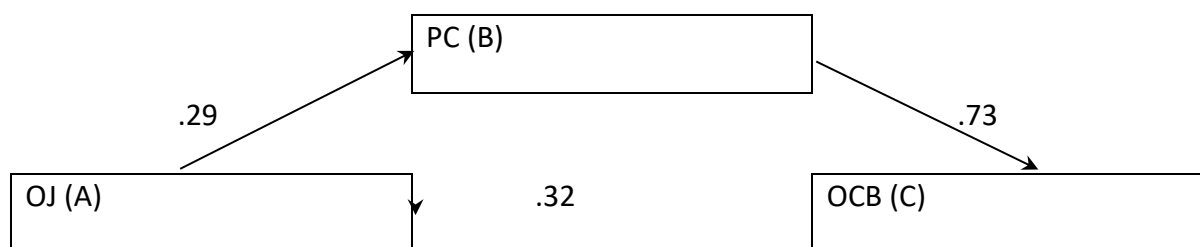


Figure 2: The Model of Psychological Capital acts as mediating variables in the relationship between Organizational Justice and OCB

Table 8

The Result of Full Model

Variables	Standard Regression	p	Result
PC <----- OJ	.29	.040	Significant
OCB <----- OJ	.32	.002	Significant
OCB <----- PC	.73	***	Significant

According to Awang (2018) in order to determine the existence of the effect of mediator in a model, the indirect effect value that has been multiplied together has to be bigger from the direct effect value. In this study, the indirect effect between (Organizational Justice + Psychological Capital) multiplies (Psychological Capital + OCB) ($.29 \times .73 = 0.212$), therefore, it is found that $A \times B < C$. The model shows that the direct effect value is smaller than the indirect value. So, Awang (2018) states that if the value of $A \times B < C$ and both coefficient value A&B are significant and so the partial mediator exists.

Discussion

According to a study by Samanci et al (2018), it is found that organizational justice influences part of the organizational citizenship behavior and also the organizational capital has partial influence towards organizational citizenship behavior.

On the contrary, the result is that the psychological capital has partial mediating effect to the model. It is found that a study about the possibility that psychological capital could become mediating variable is really limited. In this context, it is thought that this study can contribute to the literature.

According to a study by Alshahrani & Iqbal (2021) shows that the findings of psychological capital plays an important role in creating the organizational citizenship behavior. Research findings from Khelifat et al (2021) also emphasizes that psychological capital plays a significant influence towards the existence of OCB.

From the aspect of resilience and OCB, Paul et al (2016) has given empirical evidence of positive relation. Besides, past researches have also mentioned resilience which has positive correlation in improving employees' behavior, performance and attitude such as OCB. In the environment of turbulent business, organization prefers to recruit more resilient employees such as they are able to adapt themselves to the task, roles and challenging situations. Thus, they will appear better even though or whether the task is their responsibility and they anticipate to help their students or colleagues in order to develop and maintain healthy and efficient educational setting with a positive behavioral environment (Hong, 2016).

Summary

The factor analysis has proved that this instrument is valid and good to be used. According to Mokhtar et al (2021), Organizational Citizenship Behavior is an important trait and must be exhibited for all lecturers particularly lecturers at higher learning private institutions. Through this behavior, lecturers can provide extra behavior and indirectly can give a positive impact on organizations. Widodo and Gunawan (2020) stated that with the existence of OCB, the commitment of the organization and the organization itself will be strengthened. Therefore, OCB is very significant in strengthening an organization. Overall, the study related to OCB among lecturers in private institutions of higher learning in Malaysia is very important to help our stakeholders explore the training opportunities available in developing the competencies of existing and future lecturers. The importance of OCB is to give benefit to organization due to the value of behavior, there is no need for the employer to bear any cost since this voluntary act is able to give huge advantages and benefits to institutions (Puteh et al., 2021; Puteh et al., 2022; Mokhtar et al., 2022).

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