

The Mediating Role of Organizational Citizenship Behavior in the Association between Organizational Commitment and Knowledge Sharing in Malaysian Research Universities: PLS-SEM

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Abstract

Knowledge sharing in Malaysian higher education institutions experiences inadequate organizational commitment and culture. Knowledge sharing is essential for creating sustainability, performance, and competitive advantage in an organization. This work aims to identify the interplay between organizational commitment (OC), organizational citizenship behavior (OCB), and knowledge sharing (KS) among academic staff in Malaysian research universities. Using a quantitative approach with survey questionnaires, the research examines the connections between these variables. The findings reveal that higher levels of organizational commitment correlate positively with increased knowledge sharing, mediated by organizational citizenship behavior. Moreover, organizational commitment influences organizational citizenship behavior, which subsequently fosters knowledge sharing. These results underscore the importance of cultivating a supportive organizational culture to facilitate knowledge sharing among academic staff, thereby enhancing organizational performance. The findings offer actionable insights for university leaders and policymakers, providing guidelines for optimizing knowledge management practices in higher education institutions to maintain long-term viability and competitiveness on a global scale.

Keywords: *Knowledge sharing, Organizational commitment, organizational citizenship behavior, research universities*

1. Introduction

Knowledge sharing is crucial in an organization for several reasons. First, it is a valuable and concrete asset that creates sustainability, performance, and competitive advantage (Lartey et al., 2022). Knowledge transfer, which involves the exchange of information, skills, expertise, and experience among people in an organization, is essential for creating sustainability and performance. This process is particularly important for creating a competitive advantage, as it allows organizations to retain and value their existing tacit knowledge, which is not widely known and is difficult for competitors to replicate (Yao Lartey et al., 2022). Effective knowledge management, including knowledge

sharing, can also enhance employee performance and an organization's competitiveness (Hung & Wang, 2020). Organizations can use information systems, such as a Wiki system, to assist in training and management, which can help employees obtain work knowledge from more sources and facilitate the sharing and transfer of knowledge during training. This can enable organizations to rapidly accumulate knowledge capital and enhance the quality of staff, which can enhance their competitiveness. Moreover, knowledge sharing is also important for fostering employee creativity in manufacturing organizations (Andleeb et al., 2020). knowledge sharing is essential for creating

sustainability, performance, and competitive advantage in an organization. It can also enhance employee performance, foster employee creativity, and be facilitated through respectful engagement and workplace friendship.

Organizational Citizenship Behavior (OCB) and knowledge sharing have a significant relationship in the context of organizational performance. Studies show that OCB has a considerable beneficial influence on employee performance, whereas information sharing has a favorable but not significant effect (Putri, Kamil, & Amrina, 2023). However, when both OCB and knowledge sharing are considered simultaneously, they can have a significant effect on employee performance, accounting for 40.5% of the variation in performance (Ekobistek, Mustika, Putri, Kamil, & Amrina, 2023). Furthermore, OCB mediates the association between information sharing and employee performance, indicating that (Azhari & Priyono, 2022). In other words, knowledge sharing is more likely to lead to improved performance when employees engage in OCB, such as helping colleagues and going beyond their job duties.

Furthermore, OCB can mediate the link between organizational culture (OC) and information sharing, implying that it can assist develop a culture that supports knowledge sharing (Chang, Hu, & Keliw, 2021). This suggests that firms with a strong OCB culture are more likely to encourage people to share their expertise, perhaps leading to greater performance. In addition, high-performance human resource management can significantly affect knowledge sharing behavior through the mediating functions of organizational commitment and OCB (Yi, 2023). This implies that organizations that invest in high-performance human resource practices are more likely to foster a culture of knowledge sharing and OCB, which can lead to improved performance.

Malaysia's higher education system has advanced significantly in recent decades, with professionals becoming more advanced and competent. The 2020 Strategic Plan of Malaysian Higher Education Beyond is oriented toward the future in the same way as the plan to enhance higher education in Malaysia. One goal is to make Malaysia a leading educational hub on a worldwide scale (Economic Transformation Programme, 2017). Considering this, Malaysia's Ministry of Higher Education (MOHE) has made numerous changes, facilitations, and improvements to the country's higher education system in order to attract a greater number of international students. This is why it is so important for universities in Malaysia to

make strides to improve their standings both domestically and internationally. Nowadays, there is a great deal of information on the globe, and educational institutions need to be aware of how to make the most of this resource. According to Quarchioni, Paternostro, and Trovarelli (2022), one of the key goals of knowledge management in higher education is to ensure the university's long-term survival by figuring out how to make the most use of the information it currently has. Thus, the current study seeks to evaluate the link between organizational commitment and information sharing. Additionally, this study investigates the mediating function of organizational citizenship behavior in the link between organizational commitment and knowledge sharing in Malaysian higher education institutions. This study is important due to the outcomes will work as guidelines for the leaders of universities to improve knowledge sharing among the employees. By evaluating these relationships, this study seeks to contribute to the existing literature on knowledge management in higher education, offering practical guidelines for enhancing knowledge sharing practices within Malaysian universities.

2. Literature review

2.1. Association Between Organizational Commitment and Knowledge Sharing

Organizational commitment plays a vital role in enhancing and predicting knowledge-sharing behaviors (Donate & de Pablo, 2015). Chiang, Han, and Chuang (2011) suggested that a strong organizational commitment can boost the propensity for sharing knowledge among employees. This is supported by existing studies showing a positive relationship between organizational citizenship behaviors and knowledge sharing. Additionally, Asrar-ul-Haq and Anwar (2016) found that organizational commitment not only relates to but also serves as a significant predictor of knowledge exchange among employees. In the context of Pakistan, Fatima, Imran, Shahab, and Zulfiqar (2015) identified a meaningful link between affective and normative commitment and the sharing of knowledge.

Chiang et al. (2011) in their study of a Chinese IT company, and H. Wang and Zhang (2012) both noted that insufficient organizational commitment and motivation are primary reasons for the limited sharing of tacit knowledge among individuals. The model they proposed was subsequently tested and confirmed with employees of a software company in Shandong Province, China. Similarly, in the United States, research into organizational factors has shown that high levels of organizational commitment

encourage employees to share their tacit knowledge. In a related study in China, Li, Zhang, Zhang, and Zhou (2017) conducted empirical research aimed at identifying factors that predict knowledge sharing. Their findings revealed that justice is positively associated with knowledge sharing and that organizational commitment plays a mediating role in this relationship.

Costa and Monteiro (2012) proposed that there is a connection between organizational commitment and the sharing of knowledge, a hypothesis supported by exploratory research that demonstrated a significant link between affective commitment and knowledge sharing. In the same vein, Bibi and Ali (2017) also found that commitment and trust are essential factors for facilitating knowledge sharing among academics in Pakistan. More recently, Ouakouak and Ouedraogo (2019) undertook a quantitative empirical study involving 307 employees across various Canadian organizations. The aim was to explore how trust and organizational commitment influence knowledge sharing. This led to the study's hypothesis that:
H1: There is a significant relationship between organizational commitment and knowledge sharing among the academic staff in Malaysian universities.

2.2 Association Between Organizational Commitment and Organizational Citizenship Behaviour

High levels of employee commitment, according to Centin, Gürbüz, and Sert (2015), are a predictor of organizational citizenship behavior (OCB) and are essential for the development of extra-role behaviors aimed at the organization as a whole and its internal individuals. Azeem, Ahmed, Haider, and Sajjad (2021) revealed the existence of a positive relationship between OC and OCB in China. Similarly, Salehi and Gholtash (2011) conducted a study among faculty members of the Islamic Azad University in Iran and the findings revealed that the OC effect has a positive correlation with organizational citizenship behavior. In a similar vein, Carlos, Memdes, and Lourenco (2014) conducted an empirical study based on data gathered in the Portuguese environment. The results obtained demonstrated a significant connection between OC and the organizational citizenship practices of the organization.

Tsai and Cheng (2012) argued that OC led to higher organizational citizenship behaviors in the Taiwanese healthcare sector. The authors analyzed 352 valid nurses' responses to a questionnaire. The findings of this research suggested that a commitment to norms promoted positive organizational citizenship. Similarly, Kazemipour and Mohd Amin (2012) investigated the impact of OC on OCB

among nurses. The researchers carried out a study on 305 nurses in public hospitals in Iran. A survey questionnaire was employed to collect data. The results indicated a positive influence of OC on OCB among nurses.

Ahmadi and Ahmadi (2013) investigated the relationship between high school teachers' OC and OCB and between them. The study used a self-reported questionnaire to collect responses from 322 teachers in public high schools. The results of the descriptive analysis revealed that OC and OCB had a positive relationship with each other. In addition, affective commitment emerged as the factor with the highest predictive significance for citizenship behavior. Fu (2013) examined the immediate impact OC has on OCB. The research was carried out among the flight attendants of six Taiwanese airlines. Hierarchical linear modeling analysis results illustrated that flight attendants' OC effect on organizational citizenship behavior was highly significant. Obedgiu, Bagire, and Mafabi (2017) investigated the relationship between organizational commitment and organizational citizenship behavior (OCB) in Ugandan government personnel. Using a questionnaire, the author utilized a cross-sectional methodology and obtained valid responses from a total of 239 officers. According to the findings of the research, the connection between OC and OCB was discovered to carry a powerfully positive connotation. Therefore, based on the above literature review this study formulated this hypothesis:

H2: There is a significant relationship between organizational commitment and organizational citizenship behavior among academic staff in Malaysian universities.

2.3 Relationship Between Organizational Citizenship Behavior and Knowledge Sharing

Organizational citizenship is a voluntary behavior not included among the employees' official duties, and such behavior is done voluntarily beyond the job descriptions of the employees (Khadivi, Talebi, & Jabbari, 2013). J. Y. Lee, Jang, and Lee (2018) Considerable research has been conducted on the effects of organizational culture and behavior (OCB) on knowledge sharing in a variety of settings, including the Taiwanese context, where Goswami and Agrawal (2023) used social capital theory and behavioral control to investigate individuals' knowledge sharing within a workgroup. The data was collected through a questionnaire as well as interviews. The results of structural modeling indicate that OCB directly and positively affects individuals' knowledge sharing intentions and mediates the relationship between trust and the sharing of knowledge. Accordingly, Hsien, Pei, Yung, and Sheng (2014) applied the theory of planned behavior to construct a knowledge sharing model by adding OCB. The study was

conducted on 273 samples of Maritime College of Taipei catering service personnel. The study used the survey questionnaire method and applied both T testing and structural equation modeling. The study results revealed that attitudes, perceived behavioral control, and subjective norms affect the behavior of sharing knowledge, while OCB mediates the relationship between the constructs and has a positive direct impact on the behavior. Consequently, another study in the same context was conducted by Charband and Jafari Navimipour (2016) on employees of various Taiwanese companies. This research implemented gender as a mediator to investigate how different OCB aspects, including courtesy, altruism, sportsmanship, civic virtue, and conscientiousness, influence the extent to which individuals share their knowledge. The data was obtained through a survey questionnaire. The results pointed out that the impact of civic virtue and conscientiousness is similar between men and women, while altruism's impact is stronger for women and sportsmanship's impact is stronger for men than women. On the other hand, Jo and Joo (2011) established a research work to examine the antecedents of knowledge sharing, which included organizational commitment, organizational buy-in, and learning organization culture.

Furthermore, in the South Korean context, Chiu, Huang, Cheng, and Sun (2015) conducted a study on virtual communities. The study's purpose was to investigate the roles of OCB and identity in enabling the sharing of knowledge within the context of communication mediated by computers. The findings indicated that OCB facilitates knowledge sharing among virtual communities. Specifically, about the Indian setting, Ramasamy and Thamaraiselvan (2011) examine the relationship between OCB and the effect that it has on the sharing of knowledge. Liu, Huang, Huang, and Chen (2013) used the theory of planned behavior to investigate knowledge sharing behaviors among firemen in the Chinese context. The analysis indicated that both trust and OCB were positively and strongly associated with firefighters' intent to share knowledge. Furthermore, Mehrabi, Alemzade, Jadidi, and Gasemi (2014) conducted their study within the Iranian setting, interviewing employees at nonprofits and social organizations. The study used a questionnaire to explore the effect of OCB on knowledge sharing. The results obtained from the analysis indicated that OCB had an immediate and positive relationship with the sharing of knowledge. Similarly, Trong Tuan (2017) hypothesized that OCB contributed to increasing knowledge sharing among employees. The study findings provided evidence that OCB had a positive association with the sharing of knowledge.

Recently, Sadegh, Khani, and Modaresi (2018) studied the effects of employees' OCB on knowledge sharing. The researchers applied a two-wave study. The participants in the study were professional staff members from 20 hospitals located in the province of Fars, Iran. The findings indicated that OCB had a direct impact on knowledge sharing behavior. Thus, it can be concluded the above literature through this hypothesis:

H3: There is a significant relationship between organizational citizenship behavior and Knowledge Sharing among academic staff in Malaysian universities.

2.4 Organizational Citizenship Behavior as a Mediator

Previous research has consistently demonstrated the existence of correlations between organizational commitment, organizational citizenship behavior (OCB), and knowledge sharing. The literature indicates that OCB can serve as a mediator among various variables. Jo and Joo (2011) investigated the role of organizational commitment and OCB in influencing employees' intentions to share knowledge among Korean workers, finding that OCB mediates the relationship between organizational commitment and knowledge sharing. Furthermore, OCB has been recognized as playing a mediatory role in multiple studies; for instance, Ribeiro, Duarte, and Filipe (2018) identified OCB as the sole mediator linking authentic leadership and performance. Similarly, Park and Lee (2017) utilized OCB to mediate the relationship between job autonomy and organizational performance. Pradhan, Kumari, and Kumar (2017) also reported outcomes fully mediated by OCB. In a similar vein, Peikani and Syamsiri (2016) demonstrated that OCB fully mediates the relationship between organizational trust and productivity, confirming the strong linkage between these elements.

Such relationships can be described by applying Social Exchange Theory (Blau, 1968), which suggests that there are connections among individuals' behaviors and attitudes. In other words, when an employee perceives higher levels of support and trust, this will increase awareness among employees and encourage them to go beyond their duties to share their knowledge. Consequentially, the findings of this study suggest that OCB will act as a mediator in the relationship between organizational commitment and sharing knowledge which developed as a conceptual framework as shown in Figure 1. Thus, this study hypothesizes that:

H4: organizational citizenship behavior mediates the relationship between organizational commitment and

knowledge sharing among the academic staff in Malaysian universities.

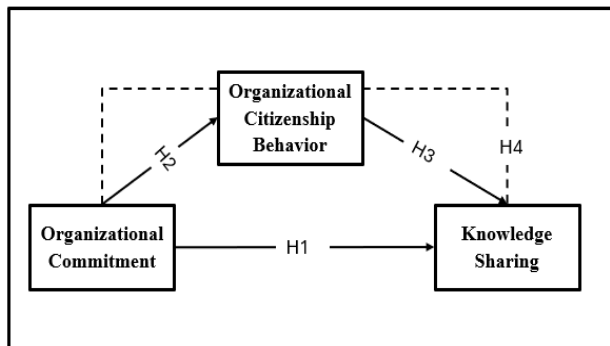


Figure 1: conceptual framework

3. Methodology

In this work, the study implemented the quantitative approach. Under this method, the study utilized the survey questionnaire to collect the data. The quantitative method provides condensed statistical data and tests the relationship between the variables of the study through a survey (Sukamolson, 2007). Therefore, this study collected cross-sectional data to measure the study variables which are organizational commitment (OC) as an independent variable, organizational citizenship behavior (OCB) as a mediator variable and sharing knowledge (SK) as a dependent variable among academic staff working in research universities in Malaysia.

The study’s population was the academics working at Malaysian Research Universities (MRU). As per the QS World University Rankings (2023), five public universities are recognized as research universities in Malaysia, including UTM (Universiti Teknologi Malaysia), USM (Universiti Sains Malaysia), UPM (Universiti Putra Malaysia), UM (Universiti Malaya), and UKM (Universiti Kebangsaan Malaysia). These universities have a total of 11,368 academic staff, according to Statistics of Higher Education Malaysia.

The stated by Sekaran and Bougie (2016), the sample size is a real number of subjects chosen to reflect the characteristics of the population. This study used the table prepared by Krejcie and Morgan (1970) for determining the sample size since it is considered a scientific guideline that offers a certain sample size based on the size of a certain population. Therefore, the population size of this study was 11,368; thus, Krejcie and Morgan’s table suggests that the targeted sample size was 371.

3.1 Research Instruments

The survey items measure the study variables adapted from previous studies as shown in Table 1. The respondent’s responses to the questionnaire using the Likert scale form (indicating never) to "5" (indicating always).

Table 1: Variables measurement

Variable	Items	References
Knowledge sharing	Twenty-five items were included to measure knowledge-sharing. It covered four dimensions of focus. Personal Contacts (6), Contributions in Writing (4), Organizational Messages (7), Professional Networks (6), and Communities of Practice (6)	(Chuymanee & Sorod, 2018; Kularajasingam, Kaur, & Subramaniam, 2018; Posada-Arias, Avendaño-Ramírez, & Arias-Pérez, 2018; Ramayah, Yeap, & Ignatius, 2013; Supermane & Mohd Tahir, 2018)
Organizational Citizenship Behaviour	It is broken down into two categories: OCB directed at the organization (OCBO) and OCB directed towards coworkers (OCBI). In the current research, the two dimensions were used to measure OCB using the 16 items	(Abdulrab et al., 2018; Hamid, Nordin, Adnan, & Sirun, 2013; K. Lee & Allen, 2002; Mohammad, Quoquab Habib, & Alias, 2011; Williams & Anderson, 1991)
Organizational Commitment	Organizational commitment will be measured using 17	(Meyer, Allen, & Gellatly, 1990)

3.2 Analysis technique (SEM)

Structural Equation Modeling (SEM) is a sophisticated statistical technique that tests hypotheses concerning the relationships between observed and latent variables. This method integrated elements of factor analysis and multiple regression analysis, enabling researchers to test intricate causal relationships while adjusting for measurement errors (J. Hair, Hollingsworth, Randolph, & Chong, 2017). SEM is widely used in social sciences and management studies (Alnehabi & Al-Mekhlafi, 2023), information system (Al-Ashmori, Thangarasu, Dominic, & Al-Mekhlafi, 2023), education (Al-Mekhlafi, Othman, Kineber, Mousa, & Zamil, 2022), construction management (Al-Aidrous, Shafiq, Al-Ashmori, Al-Mekhlafi, & Baarimah, 2022;

Alawag et al., 2023) and road safety (Al-Mekhlafi, Isha, Abdulrab, Ajmal, & Kanwal, 2022; Al-Mekhlafi et al., 2023).

4. Results

4.1 Measurement model

4.1.1 Convergent Validity

The degree to which a set of variables converges on a particular idea during its calculation is referred to as "convergent validity" (Hair, F, Anderson, Babin, & Black, 2010). Convergent validity is the situation that arises when the metrics of one definition either converge or share a greater variance proportion. The infringement of convergent validity has a deleterious effect on the result. The convergent validity of a model can be ensured by evaluating the factor loadings as well as the average variance that was calculated from the data (Hair et al., 2010). When this was done, the loading of the items was assessed, and the items showed that every item had a loading greater than 0.7, which is appropriate according to the research on multivariate analysis (Al-Mekhlafi et al., 2024; J. Hair et al., 2017). The fact that the factor loadings are statistically significant indicates that they are converging on the latent concept.

As Table 2 and Figure 2 show, the loadings for the items were higher than the value of 0.700 which is considered acceptable according to the guidelines of Hair, F, Sarstedt, Hopkins, and Kuppelwieser (2014).

Table 2: Factor loading.

First-order Constructs	Indicators	Loading (> 0.7)
Organizational commitment (OC)	CO.1	0.927
	CO.10	0.927
	CO.11	0.903
	CO.12	0.934
	CO.13	0.887
	CO.14	0.837
	CO.15	0.925
	CO.16	0.872
	CO.17	0.894
	CO.2	0.908
	CO.3	0.910
	CO.4	0.910
	CO.5	0.935
	CO.6	0.932
	CO.7	0.926
	CO.8	0.937
	CO.9	0.904
Organizational Citizenship Behavior - Individual (OCBI)	OCB.II	0.931
	OCB.I2	0.946
	OCB.I3	0.938
	OCB.I4	0.894

	OCB.I5	0.898
	OCB.I6	0.933
	OCB.I7	0.942
	OCB.I8	0.946
Organizational Citizenship Behavior - Organization (OCBO)	OCBO.1	0.929
	OCBO.2	0.929
	OCBO.3	0.841
	OCBO.4	0.860
	OCBO.5	0.928
	OCBO.6	0.945
	OCBO.7	0.951
	OCBO.8	0.922
Written contribution (WC)	WC.1	0.912
	WC.2	0.919
	WC.3	0.886
	WC.4	0.895
	WC.5	0.750
Organizational communication (KOC)	KOC.1	0.702
	KOC.2	0.794
	KOC.3	0.819
	KOC.4	0.747
	KOC.5	0.893
	KOC.6	0.900
	KOC.7	0.835
	KOC.8	0.779
Community of Practice (CP)	CP.1	0.925
	CP.2	0.919
	CP.3	0.903
	CP.4	0.923
	CP.5	0.941
	CP.6	0.927
	CP.7	0.943
Personal Interaction (PI)	P.II	0.900
	P.I2	0.861
	P.I3	0.909
	P.I4	0.881
	P.I5	0.887
	P.I6	0.853
	P.I7	0.888
	P.I8	0.800

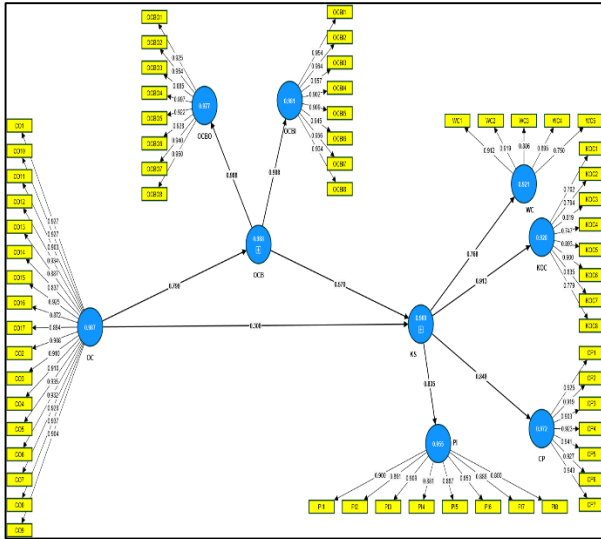


Figure 2: measurement model

4.1.2 Construct Reliability

Cronbach's alpha coefficients and composite reliability were assessed to test the reliability with which the variables in the study could be relied upon to produce accurate results. According to the information presented in Table 3, the values of Cronbach's alpha coefficients were greater than 0.7 (Kannan & Tan, 2005). In addition, composite reliability, also known as CR, was assessed to determine the reliability of the internal consistency. According to Gefen, Rigdon, and Straub (2011), the composite reliability value ought to be greater than 0.700. In this study, the result of the composite reliability of each variable was more than the target value of 0.700. This result indicated that the measures used in the study had sufficient internal reliability. Similarly, the extracted average variances (AVE) are the second component of convergent validity. AVE was given its name by Hair et al. (2017), who described it as the degree to which a latent concept represents the differences between its indicators. Convergent validity is considered acceptable if the AVE value is at least 0.50 (Hair et al., 2010). The AVE values for the constructs range from 0.541 to 0.884. After that, it built a convergent validity measurement model that was acceptable, as you can see in Table 3.

Table 3: Construct reliability and validity

Construct	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
CP	0.972	0.977	0.857
KOC	0.924	0.939	0.658
WC	0.921	0.942	0.764

PI	0.955	0.962	0.762
KS	0.968	0.970	0.541
OCB	0.988	0.989	0.849
OCBI	0.981	0.984	0.884
OCBO	0.976	0.979	0.857
OC	0.987	0.988	0.828

4.1.3 Discriminant Validity

Researchers in human resource management are advised to assess discriminant validity (Ringle, Da Silva, & Bido, 2015). The measure's discriminant validity indicates how well items distinguish across constructs. In other words, it reveals how many items signify only one construct (Hair et al. 2017). This study used the cross-loadings of the measures, the Fornell-Larcker criterion, to examine the instruments' discriminant validity. These methods were chosen because they were recommended by Hair et al. (2017).

When using the cross-loading method, the loading applied to each indication needs to be significantly greater than the sum of its cross-loadings. According to Table 4, the overall standardized loadings were adequate on the constructs that they were supposed to be loading on, and there were no cross-loadings on the other latent variables. Thus, the measuring model utilized in this research achieved levels of discriminant validity that were good.

Table 4: Results of discriminant validity by the cross-loading

	CP	KOC	OC	OCBI	OCBO	PI	WC
CP1	0.925	0.609	0.608	0.611	0.637	0.533	0.481
CP2	0.919	0.593	0.599	0.589	0.634	0.514	0.496
CP3	0.903	0.707	0.597	0.613	0.633	0.486	0.563
CP4	0.923	0.656	0.649	0.606	0.646	0.542	0.471
CP5	0.941	0.673	0.637	0.636	0.648	0.544	0.512
CP6	0.927	0.646	0.642	0.618	0.642	0.543	0.500
CP7	0.943	0.638	0.645	0.617	0.658	0.507	0.472
KOC1	0.441	0.702	0.499	0.606	0.552	0.546	0.693
KOC2	0.460	0.794	0.602	0.673	0.639	0.648	0.693
KOC3	0.555	0.819	0.646	0.701	0.672	0.770	0.703
KOC4	0.526	0.747	0.458	0.443	0.466	0.402	0.380
KOC5	0.610	0.893	0.594	0.581	0.578	0.524	0.497
KOC6	0.602	0.900	0.590	0.575	0.577	0.534	0.494
KOC7	0.594	0.835	0.520	0.509	0.516	0.473	0.483
KOC8	0.729	0.779	0.572	0.587	0.608	0.466	0.545
CO1	0.617	0.653	0.927	0.716	0.730	0.552	0.520

CO10	0.631	0.661	0.927	0.700	0.725	0.566	0.490
CO11	0.614	0.626	0.903	0.734	0.742	0.570	0.499
CO12	0.654	0.669	0.934	0.748	0.756	0.611	0.541
CO13	0.614	0.649	0.887	0.740	0.752	0.599	0.525
CO14	0.558	0.597	0.837	0.588	0.607	0.505	0.537
CO15	0.590	0.637	0.925	0.727	0.742	0.567	0.562
CO16	0.583	0.583	0.872	0.637	0.657	0.526	0.480
CO17	0.529	0.584	0.894	0.674	0.682	0.534	0.506
CO2	0.596	0.613	0.908	0.754	0.770	0.538	0.561
CO3	0.617	0.634	0.910	0.715	0.728	0.540	0.519
CO4	0.606	0.617	0.910	0.762	0.776	0.552	0.568
CO5	0.667	0.675	0.935	0.704	0.725	0.572	0.535
CO6	0.643	0.663	0.932	0.713	0.736	0.578	0.498
CO7	0.632	0.606	0.926	0.771	0.788	0.556	0.510
CO8	0.670	0.687	0.937	0.702	0.718	0.579	0.539
CO9	0.622	0.609	0.904	0.658	0.698	0.550	0.500
OCBI1	0.597	0.679	0.724	0.954	0.885	0.624	0.584
OCBI2	0.596	0.678	0.721	0.964	0.906	0.653	0.601
OCBI3	0.634	0.689	0.734	0.957	0.896	0.629	0.607
OCBI4	0.637	0.681	0.751	0.902	0.863	0.633	0.568
OCBI5	0.637	0.667	0.722	0.909	0.864	0.640	0.574
OCBI6	0.642	0.688	0.756	0.945	0.897	0.644	0.621
OCBI7	0.630	0.690	0.725	0.956	0.906	0.649	0.605
OCBI8	0.609	0.694	0.736	0.934	0.936	0.625	0.657
OCBO1	0.587	0.641	0.732	0.912	0.925	0.629	0.601
OCBO2	0.660	0.659	0.752	0.881	0.954	0.593	0.602
OCBO3	0.660	0.647	0.741	0.775	0.885	0.550	0.624
OCBO4	0.653	0.613	0.711	0.802	0.897	0.571	0.601
OCBO5	0.664	0.702	0.769	0.910	0.922	0.639	0.630
OCBO6	0.636	0.693	0.734	0.940	0.928	0.645	0.620
OCBO7	0.627	0.686	0.740	0.939	0.940	0.642	0.660
OCBO8	0.658	0.655	0.734	0.872	0.950	0.597	0.597
PI1	0.446	0.586	0.500	0.582	0.561	0.900	0.434
PI2	0.504	0.573	0.550	0.579	0.572	0.861	0.406
PI3	0.504	0.582	0.536	0.598	0.569	0.909	0.428
PI4	0.484	0.579	0.524	0.585	0.560	0.881	0.396
PI5	0.487	0.584	0.557	0.602	0.571	0.887	0.434
PI6	0.483	0.645	0.516	0.608	0.588	0.853	0.496
PI7	0.533	0.568	0.543	0.608	0.610	0.888	0.466
PI8	0.510	0.635	0.562	0.567	0.561	0.800	0.457
WC1	0.477	0.597	0.526	0.554	0.589	0.407	0.912
WC2	0.484	0.608	0.506	0.550	0.584	0.424	0.919

WC3	0.473	0.596	0.482	0.557	0.598	0.405	0.886
WC4	0.430	0.590	0.503	0.579	0.615	0.468	0.895
WC5	0.488	0.651	0.487	0.554	0.521	0.492	0.750

In the study by Fornell and Larcker (1981), this study placed the square root of the Average Variance Extracted (AVE) for each construct on the diagonal elements within the correlation matrix. This approach was employed because these diagonal elements exceeded the values of the other elements in their respective rows and columns, thus affirming the discriminant validity of the external model. The presence of discriminant validity in the external model indicates that the constructs are distinct and measure different concepts. When the construct validity of the outer model is confirmed, it suggests that the findings related to hypothesis testing are likely to be accurate and reliable. Table 5 illustrates this by showing that the square root of the AVE for each variable in the study is higher than the correlations among the variables, indicating adequate discriminant validity (Chin, 1998; Fornell & Larcker, 1981).

Table 5: Results of discriminant validity by Fornell-Larcker criterion

	CP	KOC	OC	OCBI	OCBO	PI	WC
CP	0.926						
KOC	0.698	0.811					
KS	0.848	0.913					
OC	0.676	0.696	0.910				
OCB	0.687	0.731	0.799				
OCBI	0.662	0.727	0.780	0.940			
OCBO	0.694	0.716	0.799	0.822	0.985		
PI	0.566	0.681	0.614	0.678	0.658	0.873	
WC	0.540	0.698	0.575	0.641	0.666	0.504	0.874

4.2 Structural Model Assessment

A stable and accurate structural model makes evaluating the predictions made by the inner path model possible. The researcher can examine the consistency of the structural model and test the hypothesis based on the results obtained from studying its findings (Hair et al., 2014). Path coefficient, R2 value, and size of the effect (f2) were stated.

4.2.1 Path coefficients (direct relationships)

During the structural evaluation, the first thing that was looked at was the path coefficients. To put it another way, to determine the statistical significance of the path coefficients, a bootstrap analysis was carried out after the structural model's path estimates had been generated. Path

coefficients are used to depict the relationship that is hypothesized to exist between the many constructs that are investigated in this study. According to Hair et al. (2014) if the standardized values of the path coefficients approach one, this denotes a strong positive relationship that is nearly statistically significant. As a direct result of this, the path coefficients for this research were calculated, and the results are shown in Figure 3 and Table 6, respectively.

Table 6: Path coefficients for direct relationships

H	Relationships	Original sample (O)	T statistics	P values	Decision
H1	OC -> KS	0.308	6.700	0.000	Supported
H2	OC -> OCB	0.799	37.901	0.000	Supported
H3	OCB -> KS	0.570	13.307	0.000	Supported

The evaluation of the hypothesis testing is represented through the assessment of the structural model, as illustrated in Figure 3 and detailed in Table 6, which presents three direct hypotheses. The first hypothesis (H1) posited that Organizational Commitment (OC) significantly influences Knowledge Sharing (KS), and the findings supported this hypothesis with a path coefficient (B) of 0.308, a t-value of 6.700, and a p-value = 0.000. Therefore, H1 is supported. Similarly, in H2, which illustrated the relationship between OC and OCB. Based on the results there is a significant relationship between OC and OCB with (B) of 0.799, a t-value of 37.901, and a p-value = 0.000, which means H2 was supported. Furthermore, the third hypothesis (H3) suggested that Organizational Citizenship Behavior (OCB) significantly affects Knowledge Sharing (KS). This was also supported by the results, showing a path coefficient (B) of 0.570, a t-value of 13.307, and a p-value = 0.000. Hence, H3 is supported.

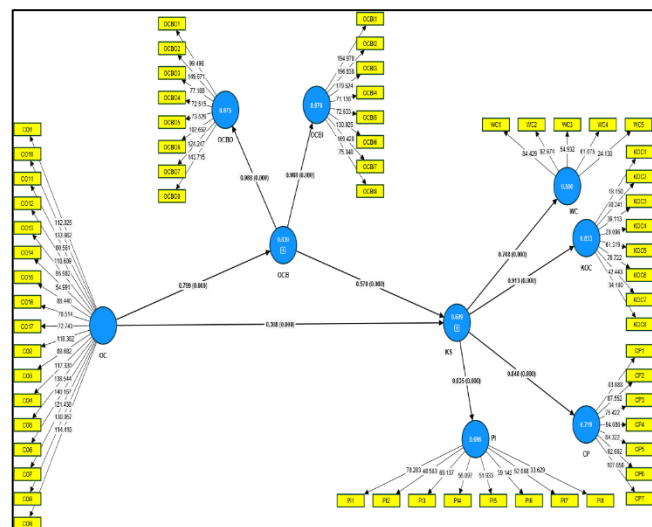
4.2.2 Mediation Effect Analysis

In this analysis, the bootstrapping approach was used to examine each mediating effect’s level of significance with 2000 bootstrap re-sampling and bias-corrected confidence intervals (Preacher and Hayes 2008).

When employing the bootstrapping method, two procedures need to be conducted in order to analyze the mediating effect (Preacher & Hayes, 2008). The first thing that needs to be done is to bootstrap the indirect impact, also known as the total effect. This step demands that there be a significant relationship between the indirect and direct impacts via the mediator (the P-value must be lower than 0.05). The second stage is determining the bootstrapped confidence interval, which consists of lower and higher levels.

Table 7 presents the results of the bootstrapping analysis, which show that the indirect effect of the relationship between OC and KS (= 0.308) was a significant one, as indicated by a t-value of 7.707 in the table. In addition, Preacher and Hayes (2008) found that percent boot CI (LL = 0.184, UL = 0.309) does not straddle a 0 in between, which suggests that there is a mediation. This finding supports the idea that there is a connection between the two variables. As a result of the study's findings, it is possible to conclude that the OCB variable has statistical significance for the mediation effect. However, the direct effect that OC (IV) has on KS (DV) meets the criteria for statistical significance (= 0.308, T value = 6.700, P value = 0.000). Therefore, OCB partially mediates the relationship that exists between OC and KS, we can conclude that Hypothesis 4 is supported.

Figure 3: Structural model



H	Path a	Path b	Indirect Effect	SE	t-value	Bootstrapped Confidence Interval		Decision
						95% LL	95% UL	
H4	0.308	0.799	0.246	0.032	7.707	0.184	0.309	Mediation

Table 7: Mediation Effect Analysis

4.2.3 Explanatory Power (R2)

Looking at that, the outcome of the coefficient determination (R2) was examined. The R2 reflects how effectively the exogenous variables (also known as independent variables) explain the variation in the endogenous variable (also known as the dependent

variable), and the R2 of the major goal construct should be high (Hair et al., 2014).

Path coefficients delineate the hypothesized relationships between constructs within the analysis, serving as indicators of the strength and direction of these relationships. When the standardized values of these path coefficients are close to 1, it indicates a strong positive relationship that verges on being statistically significant (Hair et al., 2014). Thus, as shown in Table 8, the path coefficients were created for this analysis. In addition, the outcome showed that OCB and OC clarified 69.9% of the variation in KS. Moreover, the OC explained the variance of OCB with 63.9% as a DV for this variable. As suggested by Cohen (1988), and Chin (1998) The attained R2 values have an appropriate degree of explanatory power, which indicates a significant model. Chin (1998) It states that for endogenous latent variables in the inner path model, R2 values of 0.67, 0.32, or 0.19 are regarded as large, moderate, or small, respectively.

Table 8: R2 of endogenous latent variables

Constructs	R2	Result
Knowledge sharing	0.699	Substantial
Organizational Citizenship Behavior	0.639	Substantial

4.2.4 Effect Size

The effect size (f2), as described by Hair et al. (2017) is used to determine the magnitude of influence that a predictor construct has on a dependent (endogenous) construct. Cohen (1988) provides a classification for this measure where an effect size can be considered small, medium, or large, corresponding to f2 values of 0.02, 0.15, and 0.35, respectively. This categorization is useful for quantifying the extent of impact that a predictor latent variable has on an outcome variable.

As presented in Table 9, the effect size (f2) for the relationship between Organizational Commitment (OC) and Knowledge Sharing (KS) is 0.114, indicating a small effect size. In contrast, the relationship between Organizational Citizenship Behavior (OCB) and Knowledge Sharing (KS) demonstrates a high effect size (f2= 0.389). Finally, the effect size of the (OC on OCB) was 1.768, which means there is a large effect size between them.

Table 9: Effect size (f2)

Relationship	F ²	Results
OC _→ KS	0.114	Small
OCB → KS	0.389	Large
OC _→ OCB	1.768	Large

5. Discussion

In this study model many hypotheses were tested, three of them were direct relationships while there was only one mediating relationship.

In the H1, the outcomes of this study demonstrated that there is a significant relationship between organizational commitment and knowledge sharing among the academic staff in Malaysian universities. This result was in line with previous studies such as (Borges, 2012; Chiang et al., 2011; Fatima et al., 2015; Tsai & Cheng, 2012; H. Wang & Zhang, 2012). When faculty members feel committed to their institution, they are more likely to engage in knowledge sharing, fostering a collaborative environment where ideas and expertise are freely exchanged. High levels of organizational commitment promote trust, cooperation, and a sense of belonging, which are essential for effective knowledge sharing. Conversely, low commitment levels may hinder knowledge-sharing efforts. Therefore, cultivating organizational commitment through effective leadership and supportive policies can positively impact knowledge-sharing initiatives, leading to improved research, teaching quality, and overall institutional performance.

In H2 the hypothesis addresses the relationship between the organization's commitment and the organization's citizenship behavior. Based on the results there is a significant relationship between the OC and OCB among academic staff in Malaysian universities. This results in the same vine as previous studies (Obedgiu (Ahmadi & Ahmadi, 2013; Obedgiu et al., 2017; S. Wang & Noe, 2010). High levels of employee commitment are a predictor of organizational citizenship behavior (OCB) and are essential for the development of extra-role behaviors aimed at the organization as a whole and its internal individuals.

Hypothesis three (H3) examined the relationship between organizational citizenship behavior and knowledge-sharing. This result is consistent with previous studies (Amin, Hassan, & Ariffin, 2010; Hsien et al., 2014; Mohammad Mosadegh Rad, 2006; Tourigny, Han, Baba, & Pan, 2019). Organizational citizenship behavior (OCB) plays a crucial role in fostering knowledge-sharing within organizations by creating a supportive environment where employees

willingly offer insights and expertise to their colleagues. This behavior builds trust, enhances collective learning, and ultimately improves performance by leveraging the collective knowledge of employees for better decision-making and adaptation. OCB, related to knowledge-sharing, cultivates a culture of collaboration and continuous learning, which are vital for organizational success in today's dynamic business landscape.

The final hypothesis (H4) examined the mediating role of the OCB in the relationship between OC and KS. Based on the results there is a significant mediating relationship for OCB Between the IV and DV of this study. The significance of Organizational Citizenship Behavior lies in its capacity to increase and strengthen the relationship between the independent and dependent variables, thereby enhancing the impact on knowledge sharing and elevating the relevance of this variable. OCB is essential in this context, as it plays a pivotal role in contributing to the overall effect of the research model. This underlines the importance of OCB in the investigation of organizational dynamics and its potential to offer valuable insights into the interplay of various factors within organizations.

6. Conclusion

The study investigated the intricate dynamics between (OC), (OCB), and (KS) among academic staff in Malaysian research universities. Through a quantitative approach employing survey questionnaires, the research aimed to shed light on these relationships and their implications for organizational performance and knowledge management strategies. The presence of OCB strengthens the association between commitment and knowledge sharing, emphasizing its pivotal role in amplifying the impact of organizational dynamics on knowledge management processes. This highlights the importance of nurturing a culture of organizational citizenship behavior to optimize knowledge-sharing initiatives and enhance organizational performance. In conclusion, the outcomes of this work provide valuable insights for university leaders and policymakers in Malaysia, offering actionable guidelines for fostering a conducive environment for knowledge sharing among academic staff. By emphasizing the interplay between organizational commitment, organizational citizenship behavior, and knowledge sharing, this research underscores the importance of cultivating a supportive organizational culture that encourages collaboration, innovation, and continuous learning. These findings serve as a roadmap for enhancing knowledge management practices in higher

education institutions, thereby contributing to their long-term viability and competitiveness on a global scale.

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