

Organizational Commitment Survey: A Confirmatory Factorial Analysis Based on Vocational Colleges Teachers Sample



Mohamad Zaid Mustafa, Yahya Buntat, Muhammad Ashraf Omar, Abdul Rasid Abdul Razzaq, Rosnee Ahad

Abstract:- This study was conducted to verify the construct model for organizational commitment among technical teachers at the Vocational College under the Ministry of Education. A study involving 25 vocational colleges with a total sample of 493 people consisting of teachers in mechanical engineering, electrical and electronic engineering fields, and engineering. This study uses Structural Equation Modeling (SEM) approach with AMOS 20 software. Researchers used the Organizational Commitment Questionnaire (OCQ) developed by Meyer, Allen, and Smith (1993) and Meyer and Allen (1997), comprising three substructures namely affective commitment, normative commitment and continuous commitment. The number of items is 24, 8 items per sub construct and after exploratory factor analysis is carried out there were only 22 items left. In order to ensure that the organization's commitment measuring model is verified, three factors have been evaluated as unidimensionality (looking at the factor loading ≥ 0.6), Validity (convergent validity $AVE \geq 0.5$, and construct validity refers to fitness indexes) and Reliability (composite reliability, $CR \geq 0.6$ and Average Variance Extracted ≥ 0.5). After the CFA analysis is carried out no items were dropped because all items have loading factors > 0.6 , $AVE \geq 0.5$ values for all sub constructs. While fitness indexes for Absolute Fit (RMSEA = 0.062), Incremental Fit (CFI = 0.953, TLI = 0.945) and Parsimonious Fit (Chisq/df = 2.918) met the requirements set for all CR values ≥ 0.6 . It can be concluded that after the measurement model was modified by looping between items, the model was fit to be used for structural model analysis process.

Index Terms: Organizational Commitment.

I. INTRODUCTION

Implementation of the Vocational Education Transformation Plan divided into the surge phase (2011-2013), improvement phase (2014-2016) and the empowerment phase (2017-2020) has led to a major change

to the education system in Vocational Secondary Schools, has also been transformed into Vocational College (KV) (KPM, 2011). Transformation in 71 KVs has led to changes in curriculum structure, co-curriculum, work time, assessment system, student recruitment process, infrastructure, level of education, human resources, administrative system, 5S system, and more (BPTV, 2012). In implementing the transformation involving all administrators and teachers in KV, the results of the interviews and joint researches with teachers and directors in ten KVs shows that technical teachers are more involved. This involvement is due to changes in the curriculum to enable students to be certified with Malaysian Skills Certificate (SKM), which increases teaching and learning skills. This view is parallel to Stasz et al., (2004) stating that the nature and depth of learning on the technical program is variable according to the desired skill level. In order to achieve high quality technical education system and effective teaching and learning process, the education system should be directed by quality and committed teachers and leaders (Barber & Mourshed, 2007).

More clearly these technical teachers are involved in workshops during teaching and learning sessions and these technical teachers are not provided with laboratory assistants such as teachers teaching science subjects (Sharifah et al., 2013). According to Azarudin (2004), the teachers involved in managing the workshops have other burden of duties such as being the class teacher, subject committee and handling co-curriculum. In addition to the teaching task, the teacher is also tasked with managing workshops, responsible for equipment, inventory, storage, 5S and workshop cleanliness and this indirectly affects their job satisfaction (Azarudin, 2004). This phenomenon is in line with Christina Boateng (2012)'s view that the nature and characteristics of technical education presents unique challenges to administrators and organizations, whereby technical institutions require workshops, tools, equipment, and raw materials that will add workload for the teachers.

Christina Boateng (2012) also noted that technical subjects require sufficient time for students' preparation and practice in addition to the different ways to assess the students' competence in different skills. All this makes technical education more complicated than the usual education system (Christina Boateng, 2012).

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According to Sanderson et al., (2000), technical teachers play a role that is different compared to other academic teachers, as the skills possessed by these technical teachers can contribute opportunities to venture into business and the industry with a more rewarding salary and welfare than the teaching profession. According to Sanderson et al., (2000) in his research in the United States finds out that 41.3 percent of technical teachers have expressed their intention to leave the teaching profession to venture into another profession.

Finland is a country with the best educational system in the world as the result of having committed and outstanding teachers in the process of education transformation (Sahlberg, 2010). Schools in Finland have played an important role in transforming Finland from a traditional farming country to a k-economy innovation based industry country and this achievement was made possible by teachers who are committed to the planning of the Finnish government transformation (Sahlberg, 2010). Lokman et al., (2012) states that the excellence of a school has a close relationship with the teacher's commitment to the organization. According to Lokman (2012), this commitment further refers to the individual who accepts the goal, the willingness to make something on behalf of the organization and has a high desire to remain with the organization.

The transformation of vocational education at KV beginning in 2012 wherein the main focus of the early stage is to ensure the implementation of vocational education transformation in 15 Vocational College (KV) pilot can run smoothly (BPTV, 2012). The five main strategies in this transformation are: 1) providing a vocational education curriculum that can produce skilled human capital, 2) develop a strong vocational education institute, 3) collaboration with strategic partners, 4) provide assessments that are recognized for vocational education graduates, and 5) the empowerment of vocational education management organizations (BPTV, 2012). Syed Sofian and Rohany Nasir (2010) explain that the implementation of education transformation makes the role and responsibility of teachers greater, challenging and more complex. This is due to the changes in curriculum structure, co-curriculum and community expectations towards teachers are exceptionally high, and so teachers need to give the highest commitment so that every proposed transformation will succeed.

In fulfilling the process of transformation of vocational education in KV, commitment among teachers was paramount as commitment was a serious focus that would lead to excellent work quality (Yahya Don et al., 2006). Teachers' commitment to school is a key thrust in determining the success of the transformation of a country's education system because teachers are the implementers of every educational policy that has been enacted (DiPaola et al., 2005; Leithwood et al., 2006). Firestone and Rosenbaum (1998) stated that the commitment in the education system was the emotional and affective reaction of the teacher to the teaching profession, while Mowday et al. (1982), Downs (1991) and Gamon (1991) proposed obedience and adherence to school, profession, values and work ethics. According to Lokman et al., (2012), teachers with high commitment will always be positive and respond to calls for transformation proposed by the government.

Commitment to the organization is a measure of acceptance of employees to the organization and provides initial information on their acceptance of the organization through increased productivity (Meyer & Allen 1997). According to Potvin (1991), staff with high commitments are more concerned with the task of fulfilling the organizational sense than their own needs, otherwise, a low level commitment staff would delay work, not be at work, prioritizing personal matters and not wanting to work over time. According to Mintzberg (1983), commitment has to do with the achievement of organizational goals, so a successful organization is an organization with its members committed to the mission and vision of the organization. The study of Coladarci (1992), Kushman (1992), and Rosenholtz, (1989) demonstrated the strong link between commitment and work culture in schools that brought success to the school. Teachers' commitment is also closely linked to school effectiveness, work achievement, job satisfaction, and more importantly the achievement of students (Nir, 2002; Louis, 1998; Singh & Billingsley, 1998; Firestone & Pennell, 1993). Hence, committed teachers are more motivated to make the transformation, responsible, more attentive, dedicated, and more sincere in their work (Elliot & Crosswell, 2003; Firestone & Pennell, 1993).

In ensuring that the transformation of vocational education succeeds issues related to organizational commitment that can lead to action beyond control need to be addressed. Previous studies show that organizational success is influenced by organizational commitment (Janis, 2013; Norshidah, 2012; Noorhafaiza & Ferlis, 2010; Rozman et al., 2010; Ashkan Khalili, 2011 & Florence Fletcher, 2007).

Organizational commitment can be defined as one's desire to remain with organizations involving psychological ties between workers and organizations (Noraishah, 2010). While Mathis and Jackson (2003) define organizational commitment as the level of trust and acceptance of the workload towards the goals and goals of the organization as well as the desire to remain in the organization. Organizational commitment is a measure of the desire to be a member of the organization and a desire to the highest level of expertise in the organization (Robbins & Judge, 2007; Metcalf & Dick, 2000). Lee and Miller (2001) define organizational commitment as a sense of trust in organizational values, willingness to do their best for the benefit of the organization and the desire to remain with the organization.

Mowday et al., (1982) and Porter (1974) define organizational commitment as the acceptance of the people within an organization to involve itself into the organizational structure. According to Mowday et al., (1982), the commitment to this organization can be illustrated through three factors which are acceptance of organizational values and goals, preparation and willingness to work solemnly on behalf of the organization and the desire to maintain membership within the organization. O'Reilly (1989) defines organizational commitment as an individual loyal to the organization and its values and engage in work within the organization.

II. ORGANIZATIONAL COMMITMENT THEORY

Research on organizational commitment is an ongoing study to date as it relates to individual performance, organizational performance and effectiveness in an organization (Mohamed Mousa & Ruth Alas, 2016; Allen & Meyer, 1996; Mathieu & Zajac, 1990; Mowday, 1998) commitment is translated into three categories, namely work commitment, career commitment, and organizational commitment. The definition of organizational commitment refers to the strength of individual identification and its involvement in the organization (Porter et al., 1974). According to Vandenberghe and Tremblay (2008), the model of organizational commitment proposed by Meyer and Allen (1991) is the most popular model used in previous studies. The organizational commitment model proposed by Meyer and Allen (1991) has three dimensions of affective commitment, continuous commitment and normative commitment.

Meyer and Allen (1991) state that organizational commitment is the psychological relationship of workers to the organization and has implications to stay within the organization or vice versa. The study of Cohen (1991) and Mathieu and Zajac (1990) found that organizational commitment had a positive relationship with performance in work. While the Meyer and Allen models (1991) are the most popular models used in previous studies, however, this study presents three models of organizational commitment: 1) Meyer and Allen Organization Commitment Model (1991), 2) The Steers Organization Commitment Model (1977) and 3) McGregor model (2005).

A. Meyer and Allen's Organizational Commitment

The three-dimensional organizational commitment model developed by Meyer and Allen in 1991 can be said to dominate the organizational commitment research (Meyer et al., 2002). The three dimensions stated by Meyer and Allen (1997) are effective commitments, continual commitment and normative commitments. Meyer and Allen (1997) are of the view that affective commitments, ongoing commitment, and normative commitments are due to the inherent disparity among the employees.

(i) Continuous Commitment

Meyer and Alen (1997) explain continuous commitment based on profit-loss concepts that are considered when individuals are in an organization. The continued commitment according to Meyer and Alen (1997) is also based on the intentions of a person to remain in the organization due to the difficulty of obtaining other jobs if it ceases from the current organization. This constant commitment actually states that one's obligation to stay with the organization is based on financial resources if it stops from the organization (Allen & Meyer, 1990; Meyer & Allen, 1991, 1997). Meyer and Allen (2002) also point out that constant commitment is said to occur when a worker stays with an organization due to the lack of alternative income if they left the organization, such as loss of income, seniority or retirement benefits. Continuous commitment is the desire that individuals have to endure in the organization, so that individuals feel themselves with the organization (Bishop, 2000). It can be summarized that

continuous commitment will be impaired by withdrawing from the organization due to loss of retirement benefits and others.

(ii) Normative Commitment

Normative commitment is the resulting commitment when one remains in organizational due to pressure from others to continue working within the organization (Meyer & Alen, 1997). Meyer and Alen (1997) also point out that a person who is at a high level of normative commitment is very concerned with the views of others against himself to stay within the organization or vice versa. Normative commitment is based on the norms of the employee, the sense of self confidence will make the individual responsible for the organization and feel that they must continue to be in the organization on the basis of loyalty to the organization. These normative commitments can thrive when organizations offer rewards, such as financing courses or providing training centres to train their employees on an ongoing basis (Meyer & Allen, 1991).

Normative commitment is also developed when one pioneers an organization and has been with the organization for a long time and therefore is more responsible to the organization (Meyer et al., 2002). Jaros (1997) states that normative commitments can show the extent to which workers are aligned with the goals of the organization and how the employees will be with the organization. Work experience is believed to contribute to the development of normative commitments as well as organizational support, fairness and clarity of the role of workers in the organization (Meyer et al., 2002). Normative commitment is important because it relates to organizational success and create a working climate within the organization (Meyer et al., 2002; Iverson & Buttigieg, 1999). This commitment is also linked to daily social culture and can be influenced by socialization within the individual family and culture before and after the organization (Allen & Meyer, 1996; Schappe & Doran, 1997).

(iii) Affective Commitment

Meyer and Allen (1997), states that affective commitment is related to the individual's desire to be bound by the organization on his own desire and will. Affective commitment basically refers to a person who remains in the organization for his strong beliefs with the goals and values practiced by the organization. Workers who are on the level of affective commitments are individuals who are happy because they are satisfied with the organization and willing to contribute anything for the benefit of the organization. Affective commitment shows the extent to which individuals are engaged and familiar with the organization. Affective commitment is the most powerful in relation to work and influence positive behaviours among employees for example workplace attendance, work performance, willingness to accept trust and general good behaviours (Meyer et al., 2002).

Affective commitment will have a positive impact on the organization (Powell & Meyer, 2004). It can be a measure of the relative strength of an individual's involvement with the

organization (Mowday et al., 1979). Mathieu and Zajac (1990) state that the features in affective commitment are profound beliefs about the organization, the acceptance of goals and values in the organization, working strongly for the organization and the desire to succeed in the organization. The components in this organizational commitment can be experienced at various stages at the same time (Meyer & Allen, 1991). Of the three domains of commitment proposed by Meyer and Allen (1997), the dimensions of affective commitments have the best impact on employees and organizations. The study conducted by Meyer and Allen (1997) and Mathieu and Zajac (1990) explains that there is a good but weak relationship between affective commitment and work performance. This organizational commitment component is characterized by a different set of minds and may have different implications in the behaviour of the work (Meyer & Allen, 1991; Powell & Meyer, 2004).

B. Steers Organization Commitment

Employee's commitment to the organization model proposed by Steers (1977) relates to the results of employee commitment to the organization when the employee continues to serve in the same organization over a long period of time. He presents several personal factors related to the employee's commitment to the organization, among others:

(i) Age and Gender

According to Welsch and La Van (2001) mature and long-term employees will be highly committed to the organization as opposed to new employees. She also stated that female workers would give higher organizational commitment than men.

(ii) Educational Background

Steers (1977) also noted that less-qualified employees are more committed to the organization than those with higher qualification. This may be as those who are higher qualified feels it is easier for them to seek work in other organizations than those with lower qualifications

(iii) Organizational Structure

According to Steers (1977) and Buchanan (1974) work experience possessed by a person would make the individual very important to the organization. Workers will also be more committed to the organization if the organizational management gives the employee confidence in the task given and empowers his / her self-determination to complete the work given.

(iv) Task Responsibility

The task responsibility is related to the scope of work that can be enriched through job enrichment. Job enrichment can encourage and assist workers to increase their commitment to the organization to a higher level. This method is also effective by empowering employees to make decisions. Job enrichment can also increase responsibility for the task, making the worker more skilled and expert in the field and able to accomplish heavier task in his own way.

(v) Welfare

Workers will feel appreciated if the organization cares about its virtues. Organizations will also be involved as employees will give higher organizational commitment. This is because employees think the organization can be expected to help them in any case. The organization will look forward to seeing the experience of its employees seen as an important force to help improve the organization (Steer & Porter, 1991).

C. McGregor Model

X Theory and Y Theory are human motivational theories developed by Douglas McGregor in 1960 and have been used in human resource management, organizational behavior, organizational communication and organizational development. X Theory is the negative impression of the employer on its employees, Y Theory is the positive impression of the employer. The X theory is based on the conclusions made by McGregor based on the management's views as a result of the study conducted by Taylor, Fayol and Weber, meanwhile Y Theory is the result of the conclusions by McGregor based on the study of human behavior conducted by Elton Mayo and Mary Parker Follet. The details of the indicators for these theories are as shown in **Table I**.

Table I. McGregor's X Theory and Y Theory

X Theory	Y Theory
<ul style="list-style-type: none"> Employers do not like their work and should avoid working. The worker is just waiting for instructions and has no ambition. Employees are constantly under control, forced, and threatened with various penalties for the purpose of achieving the goals of the organization. Employees are constantly avoiding accountability to the organization as well as not adhering to the organization's need. Employees are not highly intellectual and less-creative. 	<ul style="list-style-type: none"> Employees see work as something natural like relaxing and playing. Employees have high ambitions and dislike orders. Highly motivated employees and do not require continuous supervision. Employees want responsibility and feel proud when successful. Workers are creative.

In general, the XY Theory presented by McGregor in 1960 remains a major theory in organizational development and organizational culture. Theory X refers to how to manage human resources using force. According to this theory, workers in this group do not like to work. They will perform the task if the punishment will follow if they fail

to do the job. They will only follow the instructions and will seek opportunities to avoid work. According to the Y theory, it is suggested that an integration of the goals of an individual and the purpose of the work should be made with emphasis on the application of human values. With these values, the workers are able to direct themselves to accomplish their tasks and achieve organizational goals as well as gain job satisfaction. Salary and incentive systems are created with the aim of influencing workers in this group to maintain their ability to work well. Such workers will find opportunities to contribute more. Hence, if they are given the opportunity and encouragement to use their creativity when solving problems and being applied with humanitarian values, their ability as a quality workforce will be more prominent.

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D. Questionnaire on Organizational Commitment

There are two questionnaires to measure the organizational commitment that has always been the choice of previous researchers. The questionnaire developed by Porter et al., (1974) and Meyer and Allen (1997). Questionnaire by Porter et al., (1974) was developed to measure the satisfaction and level of employee engagement in the organization, there were 15 items of 9 scales, this questionnaire did not set a clear boundary between the types of commitments. Hence the questionnaire by Meyer and Allen (1997) is a better choice for measuring organizational commitment. Organizational Commitment Questionnaire by Meyer and Allen (1984) previously suggested to look at the differences between the types of affective commitments and ongoing commitment. Affective commitment is the spirit of belonging and emotion to the organization, while continuing commitment emphasizes the perceived cost of leaving the organization. In 1990 Allen and Meyer later introduced the third component of a normative commitment, reflecting a permanent obligation with the organization. Meyer, Allen and Smith (1993) revise the scale of normative commitments to explain the differences between affective commitments and normative commitments. The original version included 24 items, 8 items for each dimension in

organizational commitment questionnaire (Meyer & Allen, 1984, 1991; Allen & Meyer, 1990), a later versions by Meyer, Allen, and Smith (1993) and Meyer and Allen (1997) contains only 18 items, 6 items per scale.

The organizational commitment questionnaire is a self-assessment questionnaire responding to each of the 8 items assessed using the Likert scale 5 points with the label: 0 = strongly disagree, 1 = disagree, 2 = disagree, 3 = agree, 4 = strongly agree. Reliability (Alpha) from organizational commitment questionnaires based on previous studies, Allen and Meyer (1996) reported 0.87 for affective, 0.75 for persistent, and 0.79 for normative. Dunham, Grube, and Castaneda (1994) find alpha range 0.74-0.87 for affective, 0.73-0.81 for continuous, and 0.67-0.78 for normative. Cohen (1991) found Alpha from 0.79 for affective, 0.69 for persistence and 0.65 for normative. Based on this view, the researcher chose to use the 24 item questionnaire developed by Meyer and Allen (1997) to be used in this study.

III. METHODOLOGY

In this study, the Structural Equation Modeling (SEM) approach and the Analysis of Moment Structures (AMOS) software in analyzing and verifying the proposed model at the pre-stage of the study were used. This approach has been widely used in several disciplines, including banking, healthcare, information management, logistics, marketing, psychology, and tourism management (Lu et al., 2007). A total of 865 questionnaires were distributed and 609 were returned to researchers. The one-to-one review process on the questionnaires was carried out, only completed questionnaires were taken for analysis. Incomplete questionnaires were removed from data processing, out of 609 questionnaires received, 23 of them were incomplete, and a total of 586 questionnaires were used for data analysis.

IV. RESULTS AND FINDING

A. Outlier Data

A total of 586 completed questionnaires were submitted on SPSS version 20 and subsequently using the AMOS version 21 software. Outlier data is done by observing the most distant value of the center (Mahalanobis Distance) (Faith Ghozali, 2008; Tabachnick and Fidell, 2007). The criterion used is based on the value of Chi-squares Distribution Table on the degree of freedom, the number of construct items at the significant level of $p < 0.001$ as suggested by Tabachnick and Fidell, (2001). The value of Mahalanobis Distance in this study is $\chi^2 = 143.344$, $df = 95$, $p < 0.001$, where the Mahalanobis Distance value greater than 143.344 is the data that is out lies and discarded from the data for analysis. Finally, as many as 493 sets of data are desirable to be analyzed, the remaining sample sizes still met the criteria of the minimum sample size survey proposed by Hair et al., (2006).

B. Normality Test

Normality tests were carried out on data after the isolation process, the researchers used the skewness and kurtosis method (Hishamuddin, 2005 & Zainudin, 2015). The data are normally distributed if the skewness and kurtosis values are within the range of ± 1 (Zainudin, 2012; Hishamuddin, 2005). According to Zainudin (2015), if samples are over 200 skewness and kurtosis values can be up to ± 1.5 . While Tabachnick and Fidell (2007) suggest data normality based on skewness and kurtosis values at ± 2 range for large samples. In this study, researchers use what Tabachnick and Fidell (2007) suggest, as a result of the norms of the study data show all values are within the permissible range.

C. Confirmatory Factorial Analysis (CFA)

The CFA analysis is conducted to answer the question of the study to verify the measurement model of organizational commitment in the field of technical teachers in electrical and electronics engineering, civil engineering and mechanical engineering at Vocational College, KPM. To ensure this measurement model can be used there are three things in the value, 1) Unidimensionality (see loading factor value ≥ 0.6), 2) Validity (convergent validity AVE ≥ 0.5 , construct validity refers to fitness indexes and discriminant validity) and 3) Reliability (composite reliability, CR ≥ 0.6 and Average Variance Extracted ≥ 0.5) (Zainudin, 2015). According to Zainudin (2015) discriminant validity is only calculated for the combined model and only the main constructs. Composite Reliability (CR) and Average Variance Extracted (AVE) are calculated using the formula, $CR = (\sum K)^2 / [(\sum K)^2 + (\sum 1 - K^2)]$ and $AVE = \sum K^2 / n$ where n is the number of items in the measurement model.

Fitness Index measurement model is based on (i) RMSE ≤ 0.008 (The Root Mean Square of Error Approximation) (ii)

IFI ≥ 0.9 (Incremental Fit Index) (iii) CFI ≥ 0.9 (Comparative of Fit Index) 0.9 (Tucker Lewis Index) and (v) $Chisq / df \leq 3.0$ (Chi Square / Degree of Freedom). If the analyzed model is less matched, Zainudin (2015) and Hair et al., (2006) recommends that modifications to the model be performed by checking the loading factor for each item to exceed 0.6, items less 0.6 should be dropped and if the match index has not been reached revision to the modification index (MI) based on $MI \geq 15$, the item needs to be boiled.

The verification factor analysis (CFA) was conducted to confirm the organizational commitment constructs instruments. As a result of the EFA analysis there are 3 sub-constructs, namely affective commitment, continuous commitment and normative commitment. The purpose of this CFA analysis is to examine the integrity of the organization's commitment measurement model that has 22 items. After data is analyzed, the findings of the organization's commitment measurement model are shown in Fig I. To answer sub-questions of the research such as what is the measurement model developed by unidimensionality? What is the measurement model developed validity? And what is the measurement model developed reliability? Hence, following analysis has been carried out.

a) Unidimensionality

To ensure that the organizational development construct model is unidimensionality, all items that measure construct or sub-construct need to have loading factor ≥ 0.6 , any item which < 0.6 needs to be removed. Fig I. shows the loading factor for all items for organizational commitment constructs. Result shows, all items have factor loading ≥ 0.6 , hence no item is dropped.

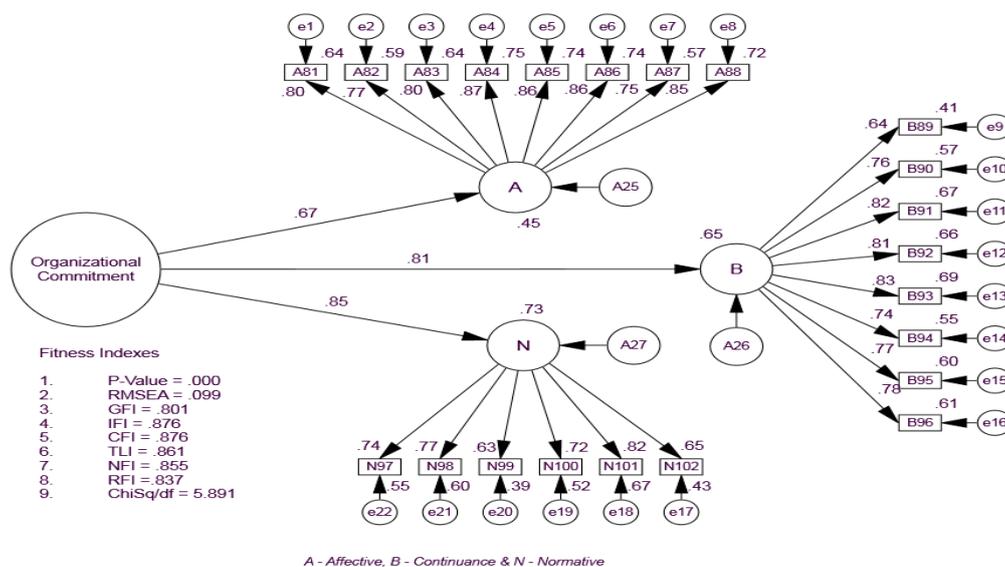


Fig I. Organization Commitment Measurement Model

b) Validity

To ensure the model's validity, construct validity, convergent validity and discriminate validity are executed. The validity constraints will be fulfilled when the fitness indexes according to the prescribed conditions, refer to Fig I compatibility index for the model has not reached the prescribed level of RMSEA = 0.098, CFI = 0.880 and Chisq / df = 5.706. Thus, to ensure that the matching index is fulfilled, this model needs to be modified by looking at the Modification Index (MI) value. The looping process of the item is run on the highest MI so fitness indexes are met. The items that need to be run in this process are as shown in Table II, this step is done one by one until the fitness index is satisfactory, between the item is N98 with N99, B94 with B95, B91 with B92, B90 with B91, B89 with B90, A87 with A88 and A81 with A82. After the measurement model is re-analyzed the modified model as shown in Fig II, the fitness index reads value is RMSEA = 0.062, CFI = 0.953 and Chisq/df = 2.918, all of these values have met the minimum requirement as shown in Table III.

Table II. Modification Index for Organizational Commitment Item

	M.I.	Par Change	Comment
e20 <--> e21	27.817	-.117	Item N98 and N99 redundant
e15 <--> e16	16.733	.062	
e14 <--> e15	162.636	.234	Item B94 and B95 redundant
e11 <--> e15	22.014	-.073	
e11 <--> e14	21.179	-.078	
e11 <--> e12	21.022	.067	Item B91 and B92 redundant
e10 <--> e15	16.282	-.064	
e10 <--> e14	15.616	-.068	
e10 <--> e12	22.403	-.070	
e10 <--> e11	31.608	.082	Item B90 and B91 redundant
e9 <--> e15	15.277	-.072	
e9 <--> e14	17.714	-.084	
e9 <--> e10	121.674	.190	Item B89 and B90 redundant
e7 <--> e8	77.327	.067	Item A87 and A88 redundant
e5 <--> e6	15.552	.023	
e1 <--> e9	32.625	.078	
e1 <--> e2	105.107	.094	Item A81 and A82 redundant

Table III. Fitness Indexes Summary of Organization Commitment Measurement

Categories	Names of Index	Hypothesis of Model Index Value	Modified Model Value Index	Comment
Absolute Fit	RMSEA	0.098	0.062	Met the required level (≤ 0.08)
	GFI	0.807	0.901	Does not meet the required level (≥ 0.09)
Incremental Fit	CFI	0.880	0.953	Met the required level (≥ 0.09)
	TLI	0.865	0.945	Met the required level (≥ 0.09)
Parsimonio us Fit	Chisq/df	5.706	2.918	Met the required level (≤ 3.00)

To fulfill the second validity requirement, convergent validity needs to be met by calculating the Average Variance Extracted (AVE) for all constructs and substructures of organizational commitment, when the value of $AVE \geq 0.5$. After the AVE calculation for organizational commitment constructs is 0.626 as summarized in **Table IV**, for the affective commitment sub-construct 0.653, sub-construct continuous commitment is 0.576 and the sub-construct of normative commitment is 0.534, summarized in **Table V**.

Table IV: CR and AVE for Second Order Constructing Organizational Commitments

Construct	Sub Construct	Charge Factor	CR (≥ 0.6)	AVE (≥ 0.5)
Organizational Commitments	A (Affective)	0.67	0.832	0.626
	B (Continuous)	0.85		
	N (Normative)	0.86		

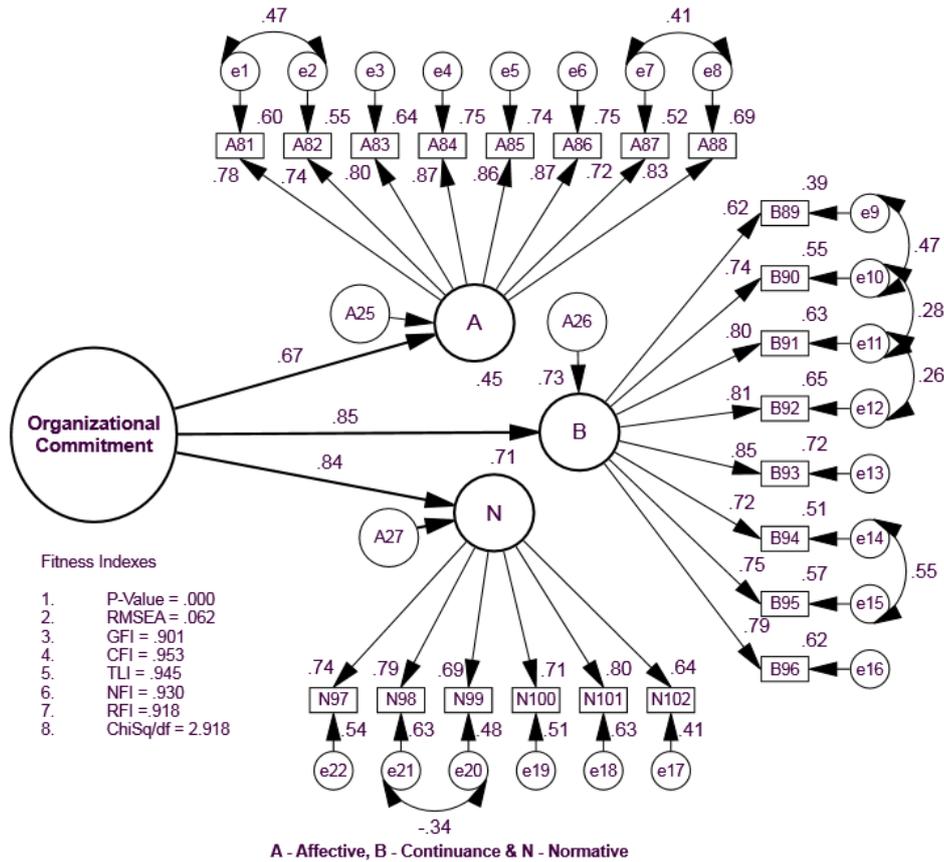


Fig II. Customized Organizational Commitment Measurement Model

c) Reliability

To ensure the reliability model or the extent to which this measurement model is reliable in measuring the latent constructs, it can be determined by calculating the value of Composite Reliability (CR ≥ 0.6) which is CR which demonstrates the reliability of the item and its internal consistency. The findings from the calculation show CR for the organizational commitment constructs is 0.832, as summarized in Table V, for the affective commitment substructure is 0.945, for continuous commitment is 0.926 and the normative commitment is 0.872 as summarized in Table V.

	B92	0.81		
	B93	0.85		
	B94	0.72		
	B95	0.75		
	B96	0.79		
N	N97	0.74	0.872	0.534
(Normative)	N98	0.79		
	N99	0.69		
	N100	0.71		
	N101	0.80		
	N102	0.64		

Table V. CR and AVE for First Order Constructs

Organizational Commitments				
Sub Construct	Item	Factor Loading	CR (≥ 0.6)	AVE (≥ 0.5)
A (Affective)	A81	0.78	0.945	0.653
	A82	0.74		
	A83	0.80		
	A84	0.87		
	A85	0.86		
	A86	0.87		
	A87	0.72		
	A88	0.83		
B (Continuous)	B89	0.62	0.926	0.576
	B90	0.74		
	B91	0.80		

V. CONCLUSION

In conclusion, it can be concluded that 493 questionnaires have been analyzed with the total item of 22 items and dropped 2 items during the EFA process, the final item for this measurement model is 22 items. This measurement model can be verified by taking into account the value of 1) unidimensionality (see loading factor value ≥ 0.6), 2) Validity (ie convergent validity AVE ≥ 0.5 , construct validity refers to fitness indexes and discriminant validity) and 3) Reliability (composite reliability, CR ≥ 0.6 and Average Variance Extracted ≥ 0.5). The findings show that all conditions have been fulfilled.



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