

Full Length Research Paper

The three components of organizational commitment on in-role behaviors and organizational citizenship behaviors

Chun-Chen Huang^{1*} and Ching-Sing You²

¹Department of International Business, Asia University, Taiwan, ROC.

²Department of Business Administration, Transworld University, Taiwan, ROC.

Accepted 6 May, 2011

There is strong theoretical support for organizational commitment impact on in-role behaviors and organizational citizenship behavior performance. However, previous studies did not attain consistent conclusions with respect to the influence of organizational commitment on organizational citizenship behavior. The purpose of the study is to adopt the three components of organizational commitment scale of Meyer and Allen (1991) and followed the suggestions of Williams and Anderson (1991) to explore the influence of the three components of organizational commitment on in-role behaviors and two dimensions of organizational citizenship behavior (OCBI and OCBO). In conclusion, this research finds that the three components of organizational commitment have a considerably important influence on in-role behaviors and two dimensions of organizational citizenship behavior (OCBI and OCBO).

Key words: Affective commitment, continuance commitment, in-role behaviors, normative commitment, organizational citizenship behaviors.

INTRODUCTION

Organizational citizenship behaviors (OCB) have been researched intensively over the recent years, and various factors affecting OCB have been explored (Bateman and Organ, 1983; O'Reilly and Chatman, 1986; Williams and Anderson, 1991). Among these factors, organizational commitment (OC) is regarded as one of the variables drawing researchers' attention (O'Reilly and Chatman, 1986; Paulin et al., 2006; Smith et al., 1983; Williams and Anderson, 1991). Podsakoff et al. (2000) found that attitude, such as OC, is positively correlated to OCB in meta-analysis. Williams and Anderson (1991) suggested that OC should be further explored because there is strong theoretical support for its impact on OCB performance. However, previous studies did not reach consistent conclusions with respect to the influence of OC on OCB.

On the other hand, through literature review, this

research found that OC and OCB study fields still revealed the following insufficiencies:

1) Researches on segmented citizenship behavior into in-role behaviors and extra-role behaviors are scanty. Williams and Anderson (1991) suggested that a good measurement of OCB should include items representing IRB because such an analysis could clarify whether the respondents differentiated between intra-role and extra-role behaviors. Borman and Motowidlo (1993) and Organ (1995) also suggested that distinction between contextual performance (like OCB) and task (that is, in-role) performance were both theoretically and practically important because they were probably determined by different antecedents. However, few studies so far have adopted the suggestion of Williams and Anderson (1991), among them was Cohen (2006) who examined the relation between multiple commitments, ethnicity, and values with OCB (OCB altruism vs. OCB organization) and in-role performance. For example, Bolon (1997) examined the relationships between the three components, as well

*Corresponding author. E-mail: cchuang1127@asia.edu.tw.

as job satisfaction and two separate forms of OCB (OCBI and OCBO), but not including IRB. Singh and Singh (2010) examined the effect of role overload and perceived organizational support in OCB, and OCB was distinct from OCB-I and OCB-O, but not including IRB. In addition, Williams and Anderson (1991) suggested that distinguishing OCBO and OCBI was important since many past studies indicated that these two forms of OCB activities could have different antecedents. However, many studies did not include these two dimensions at the same time, but evaluated by single dimension, called overall OCB (Brief and Motowidlo, 1986; O'Reilly and Chatman, 1986; Rego et al., 2010; Smith et al., 1983).

2) The scale of the three components of OC discussed in Meyer and Allen (1991) was rarely involved in the research framework. Most researches did not examine the three components of OC, instead focused on unidimensional representation of OC. O'Reilly and Chatman (1986) used the following three aspects of OC as antecedents of extra-roles. The dimensions of attachment studied included: compliance (instrumental involvement for specific, extrinsic rewards), identification (involvement based on a desire for affiliation), and internalization (involvement predicated on congruence between individual and organizational values). Williams and Anderson (1991) discussed the relationships among OC, two types of OCB (OCBI and OCBO), and in-role behaviors (IRB). OC was measured with the questionnaire from O'Reilly and Chatman (1986), but based on factor analysis, the internalization and identification scales were combined to form an overall organizational commitment, and a single aspect was used to measure OC.

This study was conducted in Taiwan where collectivism is a cultural norm (Hofstede, 1997). This not only helped us to compare the results to other similar studies conducted in a collectivist culture (Chen and Francesco, 2003; Cheng and Stockdale, 2003; Chang et al., 2006), but also provided empirical evidence about the generalizability of the three components of OC and OCB model outside North America. Thus, this research adopted the three components of OC scale of Meyer and Allen (1991) and followed the suggestions of Williams and Anderson (1991) to explore the influence of the three components of OC on IRB and two dimensions of OCB (OCBI and OCBO).

ORGANIZATIONAL CITIZENSHIP BEHAVIOR

Katz (1964) pointed out that in order to operate efficiently, an organization must possess the following three basic conditions pertaining to employees: (1) participating and staying in the organization, (2) acting according to the behavioral principles regulated by the organization; and the most important condition, (3) automatic devotion to the organization. Bateman and Organ (1983) followed the

third extra-role categorized by Katz (1964), and defined it as "citizenship behavior". Smith et al. (1983) later conceptualized these contributions as "organizational citizenship behavior" (OCB) which was a kind of non-organizational formal regulation and behavior, which could not be assessed by formal reward and punishment system. Organ further explained that "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate, promotes the effective functioning of the organization" (Organ et al., 2005).

In recent years, Western scholars have increasingly emphasized the importance of OCB. The practical importance of OCB is that it improves organizational efficiency and effectiveness by contributing to resource transformation, innovation, and adaptability in environments demanding complex, ambiguous, and team-oriented work (Organ, 1988; Organ et al., 2005). Examples of these efforts include cooperation with peers, performing extra duties without complaint, punctuality, volunteering and helping others, using time efficiently, conserving resource, sharing ideas and positively representing the organization (Turnipseed and Rassuli, 2005).

There are several classifications with respect to OCB, and the most common ones are: (1) analysis by single dimension, generally called OCB (Bateman and Organ, 1983); (2) dividing OCB into altruism and generalized compliance (Smith et al., 1983); and (3) divided into five dimensional models: (a) altruism- the helping of an individual coworker on a task, (b) courtesy- constructive gestures that help prevent problems for coworkers, (c) conscientiousness- carrying out one's duties beyond the minimum requirements, (d) sportsmanship- refraining from complaining about trivial matters, and (e) civic virtue- participating in the governance of the organization (Organ, 1988). Among the three classifications discussed earlier, the first method with single dimension was rarely adopted by researchers and it only appeared in the early studies (Bateman and Organ, 1983; Motowidlo, 1984) and two dimensions, revealing ambiguous meanings. However, as for the five-dimensional model, there is a great deal of conceptual overlap between the constructs (Podsakoff et al., 2000; Coleman and Borman, 2000), perhaps in recognition that the constructs of Organ's (1988) OCB model, overlap with each other (Organ, 1997; Coleman and Borman, 2000; Motowidlo, 2000). Several scholars have begun to consider whether the dimensions should be combined into conceptually distinct sub-groups. Williams and Anderson (1991) divided OCB into three dimensions; (a) in-role behaviors (IRB) – the responsibilities undertaken by the employees (for example, works full 8 h day, completes assigned duties on time, complies with rules and regulations), (b) OCBI – behaviors that immediately benefit specific individuals and, through this means, indirectly contribute to the organization (for example, helps others who have been absent, takes a personal interest in other employees), and

and (c) OCBO – behaviors that benefit the organization in general (for example, gives advance notice when unable to come to work, adheres to informal rules devised to maintain order). Organ (1997) followed the lead of Williams and Anderson (1991) and designated altruism and courtesy as OCBI, whereas conscientiousness, sportsmanship, and civic virtue as OCBO. Thus, this research will follow the suggestions of Williams and Anderson (1991) to explore the influence of the three components of OC on IRB and two dimensions of OCB (OCBI and OCBO).

THE THREE COMPONENTS OF ORGANIZATIONAL COMMITMENT

Organizational commitment is commonly defined as employees' interest in, and connection to an organization (Hunt et al., 1989; Meyer and Allen, 1997; Mowday et al., 1979). Employees who are committed to their firms tend to identify with the objectives and goals of their organizations, and wish to remain in their organizations (Hunt et al., 1989). Porter et al. (1974) proposed that OC can be characterized by: (1) a strong belief in, and acceptance of, the organization's goals and values; (2) willingness to exert considerable effort for the organization; and (3) a strong desire to remain a member of the organization. WeiBo et al. (2010) reviewed the main studies of OC from Becker (1960) one-side-bet theory, Porter (1974) affective dependence theory, O'Reilly and Chatman (1986), and Meyer and Allen (1984, 1990) three-component till today's Cohen (2007) two-dimension and Somers (2009) combined theory. Although the scholars do not seem to reach an agreement on organizational commitment in terms of its classification and perspective, the three components of organizational commitment established by Meyer and Allen (1991) have generally covered its content.

Meyer and Allen (1991) proposed a three-component conceptualization of OC. Meyer and Allen (1984) initially proposed a distinction be made between affective commitment (AC) and continuance commitment (CC), with AC denoting an emotional attachment to, and involvement in, the organization, and CC denoting the perceived costs associated with leaving the organization. Allen and Meyer (1990) later suggested the third discrete component, termed NC, which reflects a perceived obligation to remain in the organization. The three components model of OC proposed by Meyer and Allen (1991) has provided the predominant framework for OC research during the past decade because it is based on a exhaustive understanding of OC. The three-components model includes: (a) affective commitment (AC, emotional attachment to one's organization); (b) continuance commitment (CC, attachment based on the accumulation of valued side bets such as pension, skill transferability, relocation, and self-investment that vary with organizational membership); and (c) normative commitment (NC, attachment based on

motivation to conform to social norms regarding attachment).

CONCEPTUAL FRAMEWORK AND HYPOTHESES

In Weiner's (1982) model, commitment was viewed as the totality of these internalized beliefs and was responsible for behaviors that; (a) reflect personal sacrifice made for the sake of the organization, (b) do not depend primarily on reinforcements or punishments, and (c) indicate a personal preoccupation with the organization. Because these are characteristics that could be used to describe OCB, additional support is provided for commitment being an antecedent of OCB.

The first component, AC, refers to the employees' emotional attachment to, identification with, and involvement in the organization (Allen and Meyer, 1990). Many studies proved that there is a positive correlation between AC and intra-role performance (Allen and Meyer, 1996; Mathieu and Zajac, 1990). AC was also regarded as an important factor for predicting extra-role behaviors, such as OCB (Scholl, 1981; Wiener, 1982). O'Reilly and Chatman (1986) found that AC could significantly predict OCBO. Both Steer (1977) and Angle and Perry (1981) found similar results. From the empirical cases, McFarlane and Wayne (1993) also found that there was significant correlation between AC and OCB. However, some studies attained different research results; e.g. Williams and Anderson (1991) found that there was no relationship between OC (including AC and NC) and OCB. In addition, Shore and Wayne (1993) indicated that there was a correlation between AC and OCB, but it was insignificant. Although past studies did not have consistent conclusions with respect to the relationship between AC and IRB, OCBI, and OCBO, most of the studies still believed that AC has a positive influence on these three dimensions. Thus, the following hypotheses are proposed:

H₁: Affective commitment has a positive effect on IRB.

H₂: Affective commitment has a positive effect on OCBI.

H₃: Affective commitment has a positive effect on OCBO.

The second component, CC, refers to commitment based on the costs that an employee associates with leaving the organization (Allen and Meyer, 1990). It has been suggested that CC may be negatively linked to certain work behaviors (Meyer and Allen, 1997). One of the explanations is that employees with strong CC believe they are "trapped" in a "no choice" situation (that is, they have to stay with the organization even though they do not want to); as such, they react with anger toward the situation and, accordingly, behave negatively (Meyer and Allen, 1997). Both IRB and OCB are work related behaviors; therefore, employees with stronger CC may be more reluctant to perform IRB and OCB. Thus, it was therefore hypothesized that:

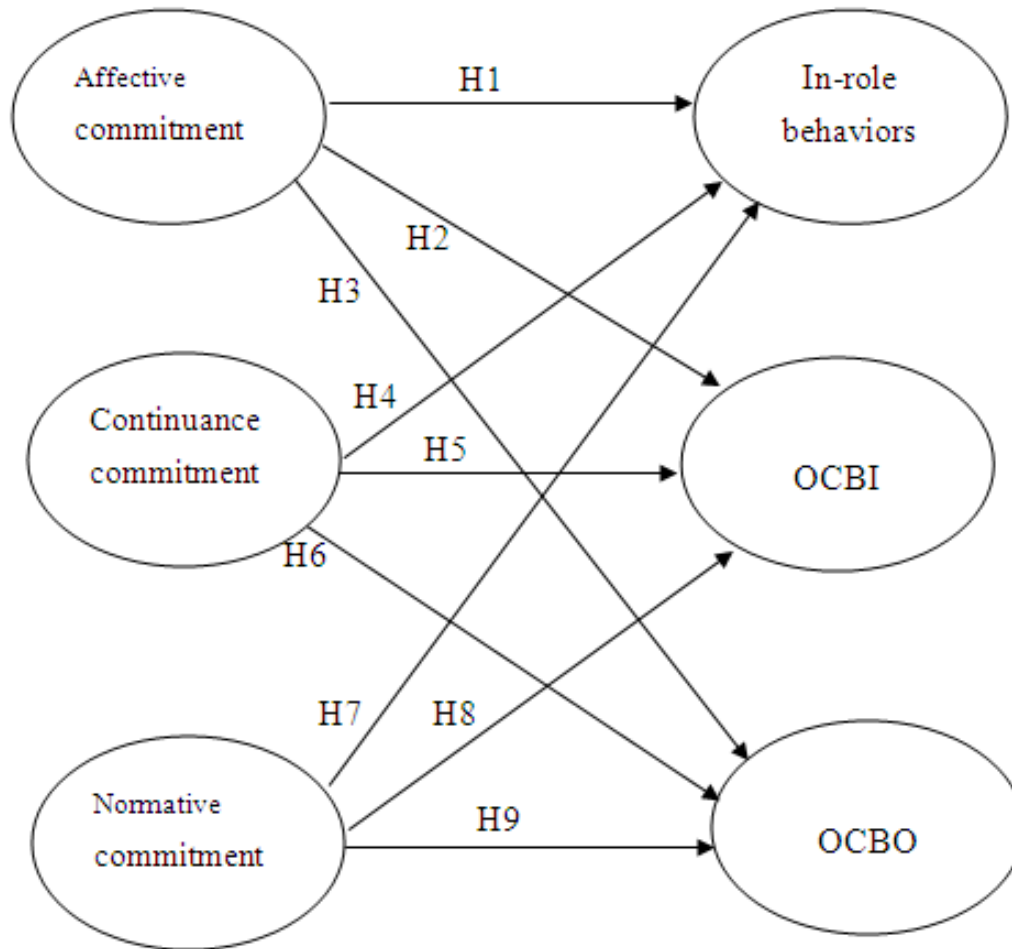


Figure 1. Conceptual framework.

H₄: Continuance commitment has a negative effect on IRB.

H₅: Continuance commitment has a negative effect on OCBI.

H₆: Continuance commitment has a negative effect on OCBO.

The third component, NC, refers to the employees' feelings of obligation to remain in the organization. NC may be developed based on socialization experiences provided by the family, culture, and employing organization. A young person would learn about the general appropriateness of organizational loyalty from one's family and the surrounding cultural environment (Meyer and Allen, 1997; Wiener, 1982). NC may also be rooted in feelings of indebtedness toward an organization for its supply of certain benefits, for example, tuition reimbursement or in-house training. The feelings of obligation may continue until the employees feel that they have "paid back" the debt (Meyer and Allen, 1991; Scholl, 1981). In the study of O'Reilly and Chatman (1986), NC (referred to as internalization) affected the employees' OCB. Pearce and Gregersen (1991) pointed out that employees

with a high degree of responsibility show the work behavior of OCB. Since the sense of responsibility is the major factor in NC, we can infer that NC has a positive relationship with IRB and OCB. Thus, we hypothesized that:

H₇: Normative commitment has a positive effect on IRB.

H₈: Normative commitment has a positive effect on OCBI.

H₉: Normative commitment has a positive effect on OCBO.

Based on the aforementioned literatures and research hypotheses, the framework of this research is shown in Figure 1.

RESEARCH METHODOLOGY

Sample and procedure

A pretest of the questionnaire was performed to ensure content validity and reliability within the target context. Ten experts in the organizational behavior areas were invited to assess wording clarity, question item sequence adequacy, and task relevance.

Table 1. Sample characteristics.

Variable	Demographic	Number	Valid percent
Gender	Male	10	3.5
	Female	300	96.5
Age	Under 25 years	64	20.6
	26-30 years	139	44.8
	31-35 years	53	17.1
	36-40 years	37	11.9
	Over 41 years	17	5.5
Nursing role	Staff nurse	240	77.4
	Administrator	29	9.4
	Advanced practice nurse	41	13.2
Job experience	Under 1 year	26	8.4
	1-3 years	53	17.1
	3-6 years	68	21.9
	6-9 years	105	33.9
	Over 9 years	58	18.7
Education level	High school or below	15	4.8
	College	167	53.9
	University	116	37.4
	Graduate school or above	12	3.8
Average wage	Under NT\$30,000	49	15.8
	NT\$30,001-35,000	91	29.4
	NT\$35,001-40,000	104	33.5
	NT\$40,001-50,000	49	15.8
	Over NT\$50,000	17	5.5

Several minor modifications of the wording and the question item sequence were done based on the comments collected from these experts. The investigation targeted hospital nurses in the north, middle, and south areas of Taiwan. Three hospitals were selected for each area sampled, giving a total of nine hospitals. Fifty questionnaires were distributed to each hospital, resulting in a total possible sample of 450 nurses. The completed questionnaires were returned to the principal investigator by mail. Incomplete questionnaires such as missing values or double-checked items were excluded. The overall response rate (310 completed questionnaires) was 69%.

A summary of the sample characteristics is presented in Table 1. The majority of the respondents were female (96.5%) and staff nurses (77.4%). Most subjects (82.5%) were less than 35 years old, and most of them (74.5%) had worked more than three years. The predominant education level was college (53.9%), and their average wage was NT\$ 30,000 to 40,000.

Measurement instruments

The organizational commitment questionnaire used in this study was developed by Meyer and Allen (1991). It contains 10 questions examining the relationship of employees to the organization. Strong evidence for the reliability and validity of the OC scale has been

reported (Chen and Francesco, 2003; Cheng and Stockdale, 2003; Meyer et al., 2002). A five-point Likert scale ranging from strongly disagree (1) to strongly agree (5) was used. The three factors identified were: (a) AC; (b) CC; and (c) NC.

The organizational citizenship behavior questionnaire followed Smith et al. (1983), Williams and Anderson (1991), and Podsakff et al. (1990). It contains 10 questions examining the relationship of employees to the organization. Since the researchers did not have consistent descriptions and classifications on OCB (Steers, 1977), this research followed the scales of several studies for the design. A five-point Likert scale ranging from strongly disagree (1) to strongly agree (5) was used. The three factors identified were: (a) IRB; (b) OCBI; and (c) OCBO. The questionnaire items measuring constructs are listed in Table 2.

DATA ANALYSIS AND RESULTS

Measurement model

Data analysis is carried out in accordance with a two-stage methodology: the measurement model and the structure model (McDonald and Ho, 2002). The first step in the data analysis was to assess the construct validity

Table 2. Summary of measurement scales.

Construct	Measure	Mean	SD	Loading
Affective commitment (AC) Cronbach's alpha = 0.8221				
AC1	I do not feel a strong sense of belonging to my organization.*	3.19	0.88	0.73
AC2	I do not feel emotionally attached to this organization.*	3.15	0.88	0.78
AC3	I do not feel like part of the family at my organization.*	3.39	0.86	0.83
Continuance commitment (CC) Cronbach's alpha = 0.8127				
CC1	Too much of my life would be disrupted if I decided I wanted to leave my hospital now.	2.74	1.04	0.80
CC2	I feel that I have too few options to consider leaving this hospital.	2.63	1.01	0.89
CC3	One of the few negative consequences of leaving this hospital would be the scarcity of available alternatives.	2.52	0.86	0.64
Normative commitment (NC) Cronbach's alpha = 0.7703				
NC1	Even if it were to my advantage, I do not feel it would be right to leave my hospital now.	2.65	0.96	0.67
NC2	I would feel guilty if I left this organization now.	2.43	0.97	0.72
NC3	This hospital deserves my loyalty.	2.85	0.87	0.72
NC4	I would not leave my hospital right now because I have a sense of obligation to the people in it.	2.90	0.93	0.61
In-role behaviors (IRB) Cronbach's alpha = 0.7628				
IRB1	Adequately completes assigned duties.	2.59	0.87	0.67
IRB2	Fulfills responsibilities specified in job description.	2.56	0.90	0.65
IRB3	Performs tasks that are expected of him/her.	2.86	0.89	0.76
IRB4	Meets formal performance requirements of the job.	2.59	0.80	0.60
OCBI behaviors (OCBI) Cronbach's alpha = 0.7648				
OCBI1	Goes out of way to help new employees.	3.96	0.66	0.70
OCBI2	Helps others who have heavy work loads.	4.03	0.63	0.78
OCBI3	Helps others who have been absent.	4.30	0.67	0.69
OCBO behaviors (OCBO) Cronbach's alpha = 0.6602				
OCBO1	I make suggestions to improve the organization.	3.64	0.68	0.70
OCBO2	I volunteer for tasks that are not required.	3.15	0.91	0.78
OCBO3	I attend functions that are not required, but that help the university's image.	3.66	0.68	0.69

for the six measurement elements (that is, AC, CC, NC, IRB, OCBI, and OCBO) with LISREL confirmatory factor analysis.

As shown in Table 2, reliability was tested using the Cronbach's alpha values. All of these are above 0.66, well above the common acceptance level of 0.60 (Bagozzi and Yi, 1988). Convergent validity assesses the extent to which varying approaches construct measurements, and yielded the same results (Campbell and Fiske, 1959). Convergent validity was evaluated for the measurement scales using two criteria suggested by Jöreskog and Sörbom (1989): (1) all indicator factor loadings (λ) should be significant and exceed 0.45, and (2) average variance extracted (AVE) by each construct

should exceed 0.50. As shown in Table 3, all λ are higher than the 0.45 benchmark, and most AVEs are greater than 0.5, except for the IRB and OCBO scales with AVE slightly below the required minimum criteria of 0.5 (0.46, 0.43, respectively). Therefore, the measurement of the convergent validity was acceptable.

Discriminant validity assesses the extent to which a concept and its indicator differ from another concept and its indicators (Bagozzi and Phillips, 1991). Discriminant validity of the resulting measures was assessed using the guidelines suggested by Fornell and Larcker (1981): the square root of AVE for each construct should exceed the correlation between that and any other construct. Table 3 lists the correlation matrix, with correlation among

Table 3. Correlations and AVE.

Construct	AVE	CR	AC	CC	NC	IRB	OCBI	OCBO
AC	0.61	0.82	0.78					
CC	0.55	0.78	-0.11	0.74				
NC	0.50	0.75	0.11	0.61	0.71			
IRB	0.46	0.77	0.19	-0.02	0.24	0.68		
OCBI	0.52	0.77	0.27	-0.26	-0.09	0.06	0.72	
OCBO	0.43	0.70	0.36	0.04	0.25	0.13	0.08	0.66

Table 4. Model fit index summary.

Fit index	Score	Recommended value
Absolute fit measures		
χ test	322.28	
df	137	
GFI	0.90	>0.9 (Bentler, 1983, 1988; Browne and Cudeck, 1993; Hayduk, 1987)
RMSEA	0.06	<0.08 (Jöreskog and Sörbom, 1993)
Relative fit measures		
NNFI	0.91	>0.9 (Bentler, 1983, 1988; Browne and Cudeck, 1993; Hayduk, 1987)
CFI	0.93	>0.9 (Bentler, 1983, 1988; Browne and Cudeck, 1993; Hayduk, 1987)
Parsimonious fit measures		
χ^2/df	2.35	<5.00 (Bentler, 1988)

constructs and the square root of AVE on the diagonal. The diagonal values exceed the inter-construct correlations; hence, the test satisfied the discriminant validity.

Structural model

Structural equation modeling (SEM) approach was used to test the hypothesized relationships in the research model (Figure 1), and the latent construct was examined with the structural mode. For models with a good fit, chi-square normalized by degrees of freedom (χ^2/df) should not exceed 5, non-normed fit index (NNFI); comparative fit index (CFI), and goodness-of-fit index (GFI) should exceed 0.9 (Bentler, 1983, 1988; Browne and Cudeck, 1993). RMSEA should be less than 0.8 (Jöreskog and Sörbom, 1993).

Bentler (1988) and Hayduk (1987) advocated NNFI should exceed 0.9. For the current structural model (Table 4), χ^2/df is 2.35 ($\chi^2 = 322.28$, $df = 137$), NNFI was 0.91, CFI was 0.93, GFI was 0.90, and RMSEA was 0.06. In summary, the overall results suggested that the research model provided an adequate fit to the data.

Table 5 shows the standardized LISREL path coefficients. Most paths were significant except for the path between CC and OCBO ($\beta = -0.09$, t value = -0.87), the path between NC and OCBI ($\beta = 0.04$, t value = 0.37),

and the path between AC and IRB ($\beta = 0.13$, t value = 1.75) which were insignificant. Hence, H_2 , H_3 , H_4 , H_5 , H_7 , and H_9 were supported; on the other hand, H_1 , H_6 , and H_8 were not supported.

Conclusion

Findings and implications

The purpose of this research was to explore the influence of three dimensions (AC, CC, NC) of OC on IRB and two dimensions (OCBI and OCBO) of OCB. This study validated the proposed research model and the findings presented herein responded to the research questions. First of all, the results indicate that AC reveals significant influence on two dimensions of OCB (OCBI and OCBO); however, it does not show significant influence on IRB. Although many studies concluded that AC has positive relationship with IRB and two dimensions of OCB (OCBI and OCBO), Chen and Francesco (2003) indicated that the influence of AC on OCB was greater than that on IRB. Therefore, our findings suggest that AC has no significant influence on IRB. A possible explanation for this finding is that IRB are required by the organization and not voluntary. Thus, the employees with higher degree of AC regarded behavior as what they should do

Table 5. The results of SEM analysis of research model.

Hypothesis	Path	β	t value	Results
H ₁ : Affective commitment has a positive effect on IRB.	AC → IRB	0.13	1.75	H ₁ not supported
H ₂ : Affective commitment has a positive effect on OCBI.	AC → OCBI	0.24	3.19**	H ₂ supported
H ₃ : Affective commitment has a positive effect on OCBO.	AC → OCBO	0.32	3.83**	H ₃ supported
H ₄ : Continuance commitment has a negative effect on IRB.	CC → IRB	-0.23	-2.24*	H ₄ supported
H ₅ : Continuance commitment has a negative effect on OCBI.	CC → OCBI	-0.26	-2.55*	H ₅ supported
H ₆ : Continuance commitment has a negative effect on OCBO.	CC → OCBO	-0.09	-0.87	H ₆ not supported
H ₇ : Normative commitment has a positive effect on IRB.	NC → IRB	0.37	3.26**	H ₇ supported
H ₈ : Normative commitment has a positive effect on OCBI.	NC → OCBI	0.04	0.37	H ₈ not supported
H ₉ : Normative commitment has a positive effect on OCBO.	NC → OCBO	0.27	2.41*	H ₉ supported

and that they had to do to meet the basic requirements of work. Thus, AC does not have significant influence on IRB. Therefore, when the employees identify themselves with the organizational goals, values, and mission, and are willing to make their best efforts in the organization, they not only would help, and communicate with, their colleagues, but also try their best to devote their efforts to the organization. People who feel that they are treated well by an organization, such as receiving fair treatment (Allen and Meyer, 1990) or participating in decision-making (Rhodes and Steers, 1981), are more likely to develop AC. Meyer and Allen (1991) found that work attitudes/perceptions, namely: organizational dependability, peer cohesion, role clarity, personal importance, job challenge, participation, goal clarity, goal difficulty, management receptivity equity, and feedback, were the best predictors of AC.

From a practical perspective, firms should increase employees' emotional attachment to the organization, such as providing the employees diverse tasks through assignments, empowerment, supportive work environment, proper career management with partners, and work rotation.

Secondly, this study finds that CC has significant and negative influences on IRB and OCBI; however, it does not have significant influence on OCBO. It shows that when the employees have stronger CC, they are less willing to accomplish their duties and actively help others in the organization.

Although the influence of CC on OCBO is insignificant, it is still a negative effect. As proved by many past studies, CC is expected to be related negatively to these desirable work behaviors. Meyer and Allen (1991) suggested that the two most important antecedents of CC are employees' accumulated side bets, or organization-dependent investments (for example, lack of skill transferability, relocation concerns, and pensions), and the availability of job alternatives.

From a practical perspective, firms should avoid treating "seniority" as the condition for promotion and should reduce CC by strengthening AC and NC CC. As such, this study suggests that hospital leaders can

encourage participation, fully empower staff, increase educational training, and promote the developmental growth of nurses.

Finally, our findings show that NC has significant influence on IRB and OCBO; however, it does not have significant influence on OCBI. The influence of NC on intra-role behaviors is greater than that on OCBO and OCBI.

Thus, when employees are restricted by morality or stay in the organization because of the sense of responsibility, they not only would fulfill their duties, but also devote themselves to the organization. Allen and Meyer (1996) indicated that NC is developed by socialization experiences provided by family, culture, and employing organization.

Employees with strong NC may feel a more deep-seated obligation "to act in a way which meets organizational goals and interests" (Wiener, 1982). Meyer et al. (1993) proposed two antecedents of NC-socialization toward loyalty that emphasize the appropriateness of remaining loyal to one's employer, and receipt of benefits (not side bets) that make the employees feeling a sense of obligation to reciprocate until the debt has been repaid (for example, employer paying college tuition or providing training; Meyer and Allen, 1991; Meyer et al., 1993).

Hofstede (1992) categorized the social level of China as collectivistic.

In addition, Moorman and Blakely (1995) found that collectivistic subjects are more likely to perform OCB, and they have higher level of NC. From a practical perspective, managers can set up the rights of work, societal norms of obligations, and responsibility in the name of the group instead of individual, or the norms of performance which could be an influence on NC.

Limitations and suggestions for further research

Although our findings provide meaningful implications for OCB, our study has some limitations. First, from literature review, we can find that many studies did not include two

dimensions of OCB (OCBI and OCBO) at the same time. In addition, many researches did not distinct the difference of OCB and in-role behaviors, but evaluated OCB by single dimension.

Furthermore, most researches did not examine the three components of OC, instead focused on unidimensional representation of OC.

Therefore, the chief limitation of this investigation lies in the insufficiency of direct literatures to prove the impact of the three components of OC on in-role behaviors, OCBI and OCBO. However, this investigation has tried to provide such a proof through reasoning based on literature review.

Secondly, Podsakoff et al. (2000) examined the literatures related to OCB and indicated that almost 30 potentially different forms of citizenship behavior had been identified. However, this research only explores IRB, OCBI, and OCBO. Future studies can explore the influences of the three components of OC on more dimensions of OCB.

Thirdly, this research did not include the antecedents of the three components of OC, including individual or work-related variables, or consider the outcomes of OC or OCB, such as absence or turnover intention, or whether the three components of OC on different dimensions of OC are affected by other moderating variables. Therefore, it would be interesting to examine the antecedents of OC and the influence of OC or OCB on work related outcomes, and explore if there are moderating variables in the relationship between OC and OCB.

Finally, this research was only managed in one country. Future researches can focus on cross-cultural studies, and explore the influence of individualism and collectivism on the relationship between OC and OCB.

In conclusion, this research finds that the three components of OC have a considerably important influence on IRB and OCB. However, as for the influence of the three components of OC on IRB and OCB, there is still no consistent conclusion which is worthy to be explored in future studies. Practically, our results suggest that managers can strengthen the employees' performance through a better understanding of the nature of OC.

REFERENCES

- Allen NJ, Meyer JP (1990). [The measurement and antecedents of affective, continuance and normative commitment to the organization. J. Occup. Psychol., 63: 1-18.](#)
- Allen NJ, Meyer JP (1996). [Affective, continuance, and normative commitment to the organization: An examination of construct validity. J. Vocat. Behav., 49: 252-276.](#)
- Angle H, Perry J (1981). [An empirical assessment of organizational commitment and organizational effectiveness. Adm. Sci. Q., 26: 1-14.](#)
- Bagozzi R, Phillips L (1991). [Assessing construct validity in organizational research. Adm. Sci. Q., 36\(3\): 421-458.](#)
- Bagozzi R, Yi Y (1988). [On the evaluation of structural equation models. J. Acad. Mark. Sci., 16\(1\): 74-94.](#)
- Bateman TS, Organ DW (1983). [Job satisfaction and the good soldier: The relationship between affect and employee "citizenship". Acad. Manage. J., 26: 587-595.](#)
- Becker HS (1960). [Notes on the concept of commitment. Am. J. Sociol., 66: 32-40.](#)
- Bentler PM (1983). [Some contributions to efficient statistics in structural models: Specification and estimation of moment structures. Psychometrika, 48: 493-517.](#)
- Bentler PM (1988). *Theory and Implementation of EQS: A Structural Equations Program*. Sage, Newbury Park, CA.
- Bolon DS (1997). Organizational citizenship behavior among hospital employees: A multidimensional-analysis involving job satisfaction and organizational commitment. *Hosp& Health Serv. Adm.*, 42: 221-241.
- Borman WC, Motowidlo SJ (1993). Expanding the criterion domain to include elements of contextual performance. In Schmitt N, Borman WC(Eds), *Personality Selection*. San Francisco: Jossey-Bass.
- Brief A, Motowidlo SJ (1986). [Prosocial organizational behaviors. Acad. Manage. Rev., 11: 710-725.](#)
- Browne MW, Cudeck R (1993). Alternative ways of assessing model fit. In: Bollen, K.A. and Ling, J.S. (Eds.), *Testing Structural Equation Models*, Sage, Newbury Park, CA.
- Campbell DT, Fiske DW (1959). [Convergent and discriminant validation by the multitrait-multimethod matrix. Psychol. Bull., 56\(2\): 81-105.](#)
- Chang HT, Chi NW, Miao MC (2006). Testing the relationship between three-component organizational/occupational commitment and organizational/occupational turnover intention using a non-recursive model. *J. Vocat. Behav.*, 70: 352-368.
- Chen ZX, Francesco AM (2003). [The relationship between the three components of commitment and employee performance in China. J. Vocat. Behav., 62: 490-510.](#)
- Cheng Y, Stockdale MS (2003). [The validity of the three-component model of organizational commitment in a Chinese context. J. Vocat. Behav., 62: 465-489.](#)
- Cohen A (2007). [Commitment before and after: An reconceptualization of organizational commitment. Hum. Res. Manage. Rev., 17: 336-354.](#)
- Cohen A (2006). [The relationship between multiple commitments and organizational citizenship behavior in Arab and Jewish culture. J. Vocat. Behav., 69: 105-118.](#)
- Coleman VI and Borman WC (2000). [Investigating the underlying structure of the citizenship performance domain. Hum. Res. Manage. Rev., 10\(1\): 25-44.](#)
- Fornell C, Larcker DF (1981). Evaluating structural equation models with unobservables and measurement error. *J. Mark. Res.* 18(1): 39-50.
- Hayduk LA (1987). *Structural Equation Modeling with LISREL: Essentials and Advances*. Johns Hopkins University Press, Baltimore, MD.
- Hofstede GH (1992). Cultural constraints in management theories. Paper presented at the annual meeting of the Academy of Management, Las Vegas, NV.
- Hofstede GH (1997). *Cultures and organizations: software of the mind*. New York: McGraw-Hill.
- Hunt SD, Wood VR, Chonko LB (1989). Corporate ethical values and organizational commitment in marketing. *J. Mark.*, 53: 79-90.
- Jöreskog KG, Sörbom D (1989). *LISREL 7: A guide to the program and applications* (2nd ed.). Chicago, IL: Scientific Software International.
- Jöreskog KG, Sörbom D (1993). *LISREL 8: Structural Equation Modeling with the SIMPLISTM Command Language*. Scientific Software International, Chicago.
- Katz D (1964). The motivational basis of organizational behavior. *Behav. Sci.*, 9: 131-133.
- Mathieu JE, Zajac D (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychol. Bull.*, 108: 171-194.
- McDonald RP, Ho MR (2002). Principles and practice in reporting structural equation analyses. *Psychol. Methods*, 7(1): 64-82.
- Meyer JP, Allen NJ (1984). Testing the "side-bet theory" of organizational commitment: some methodological considerations. *J. Appl. Psychol.*, 69: 372-378.
- Meyer JP, Allen NJ (1991). A three-component conceptualization of organizational commitment. *Hum. Res. Manage. Rev.*, 1: 61-89.
- Meyer JP, Allen NJ (1997). *Commitment in the Workplace: Theory, Research, and Application*. Sage, Thousand Oaks.
- Meyer JP, Allen NJ, Smith CA (1993). Commitment to organizations and occupations: extension and test of a three-component

- conceptualization. *J. Appl. Psychol.*, 78: 538-551.
- [Meyer JP, Stanley DJ, Herscovitch L, Topolnytsky L \(2002\). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *J. Vocat. Behav.*, 61: 20-52.](#)
- [Moorman RH, Blakely GL \(1995\). Individualism -- collectivism as an individual difference predictor of organizational citizenship behavior. *J. Organ. Behav.*, 16\(2\): 127-142.](#)
- [Motowidlo SJ \(1984\). Does job satisfaction lead to consideration and personal sensitivity? *Acad. Manage. J.*, 27: 910-915.](#)
- Motowidlo SJ (2000). Some basic issue related to contextual performance and organizational citizenship behavior in human resource management. *Hum. Res. Manage. Rev.*, 10(1), 115-126.
- [Mowday RT, Steers RM, Porter LW \(1979\). The measure of organizational commitment. *J. Vocat. Behav.*, 14: 224-247.](#)
- [O'Reilly C, Chatman J \(1986\). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *J. Appl. Psychol.*, 71: 492-499.](#)
- Organ DW (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- [Organ DW \(1995\). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Pers. Psychol.*, 48: 775-802.](#)
- [Organ DW \(1997\). Organizational citizenship behavior: It's construct clean-up time. *Hum. Perform.*, 10\(2\): 85-97.](#)
- Organ DW, Podsakoff PM, Mackenzie SB (2005). *Organizational citizenship behavior: Its nature, antecedents and consequences*. Sage, Thousand Oaks, CA.
- [Paulin M, Ferguson RJ, Bergeron J \(2006\). Service climate and organizational commitment: The importance of customer linkages. *J. Bus. Res.*, 59: 906-915.](#)
- [Pearce JL, Gregersen HB \(1991\). Task interdependence and extra-role behavior: A test of the mediating effects of felt responsibility. *J. Appl. Psychol.*, 76: 838-844.](#)
- [Podsakoff PM, MacKenzie SB, Moorman RH, Fetter R \(1990\). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction and organizational citizenship behaviors. *Leadersh. Q.*, 1: 107-142.](#)
- Podsakoff PM, MacKenzie SB, Paine JB, Bachrach DG (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *J. Manage.*, 26(3): 513-563.
- Porter LW, Steers RM, Mowday RT, Boulian PV (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *J. Appl. Psychol.*, 59: 603-609.
- Rego A, Ribeiro N, Cunha MP (2010). Perceptions of organizational virtuousness and happiness as predictors of organizational citizenship behaviors. *J. Bus. Ethics*, 93:215-235.
- Rhodes SR, Steers RM (1981). Conventional vs. worker-owned organizations. *Hum. Relat.* 12: 1013-1035.
- Scholl RW (1981). Differentiating commitment from expectancy as a motivation force. *Acad. Manage. Rev.*, 6: 589-599.
- Shore LM, Wayne SJ (1993). Commitment and employee behavior: Comparison of affective commitment and continuance commitment with perceived organizational support. *J. Appl. Psychol.*, 78: 774-780.
- Singh AK, Singh AP (2010). Role of stress and organizational support in predicting organizational citizenship behavior. *IUP J. Organ. Behav.*, IX(4): 7-19.
- Smith CA, Organ DW, Near JP (1983). Organizational citizenship behavior: Its nature and antecedents. *J. Appl. Psychol.*, 68: 655-663.
- Somers MJ (2009). The combined influence of affective, continuance and normative commitment on employee withdrawal. *J. Vocat. Behav.*, 74: 75-51.
- Steer RM (1977). Antecedents and outcomes of organizational commitment. *Adm. Sci. Q.* 22: 45-56.
- Wiener, Y (1982). Commitment in organizations: A normative review. *Acad. Manage. Rev.*, 7: 418-428
- Williams LJ, Anderson SE (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *J. Manage.*, 17(3): 601-617.
- WeiBo Z, Kaur S, Jun W (2010). New development of organizational commitment: A critical review (1960-2009). *Afr. J. Bus. Manage.*, 4(1): 12-20.