



## Dimensionality of Organizational Citizenship Behavior (OCB) in a Multicultural Society: The Case of Malaysia

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### Abstract

Past researches have observed a shift in the dimensions of organizational citizenship behavior. Building on organizational citizenship behavior literature, the present study in the paper involved looking at validating the dimensionality of the organizational citizenship behavior (OCB) measure developed by Organ (1988) who posited a five dimension instrument. Data was gathered through a survey using a structured questionnaire to employees working in 10 large manufacturing companies in Malaysia. A total of 113 questionnaires were returned over a period of 10-week. A series of tests such as factor analysis, correlation, and reliability analysis was conducted to confirm that the instrument is valid (content, construct, convergent, discriminant and nomological) as well as reliable. Implications regarding the value of conducting validity and reliability test for practitioners and researchers are discussed.

**Keywords:** Organizational citizenship behavior, Goodness of measure, Validity, Reliability, Multicultural society

### 1. Introduction

Organizational citizenship behavior (OCB) was first illustrated in the work of Bateman and Organ (1983) 24 years ago and has recently been gaining momentum. OCB refers to the individual contributions in the workplace that go beyond role requirements as stipulated in the job agreement (Organ & Ryan, 1995). OCB of the organizational members is becoming increasingly crucial in the businesses nowadays in view of the downsizing, rightsizing in response to the economic pressures of the last decade. Hence, understanding how OCB works in organizations is an important issue of enquiry for both researchers and also practitioners. Recent studies had illustrated the dramatic growth of OCB researches into some other related management areas, for example, strategic management, leadership, human resources management, etc. OCB has been noted to have contributed favorably to organizational outcomes, such as service quality (Bettencourt & Brown, 1997; Bell & Menguc, 2002), organizational commitment (Podsakoff, McKenzie & Bommer, 1996), job involvement (Dimitriades, 2007), leader-member exchange (Bhal, 2006; Lo, Ramayah & Jerome, 2006).

Despite the importance of examining organizational citizenship behaviors in organizational for leadership effectiveness, a review of the literature have revealed a lack of consensus about the dimensionality of OCB, particularly in the Malaysia context. As stated by LePine, Erez, and Johnson (2002), these behavioral dimensions have yet to be differentiated from one another in the empirical literature even though many scholars have claimed that OCB is composed of conceptually distinct behavioral dimensions. Studies have found that there are approximately 30 forms of

citizenship behavior have been developed (Podsakoff, Mackenzie, Paine & Bachrach, 2000) and generally it can be grouped into seven dimensions known as, (i) Helping Behavior, (ii) Sportsmanship, (iii) Organizational Loyalty, (iv) Organizational Compliance, (v) Individual Initiative, (vi) Civic Virtue, and (vii) Self Development.

Hence, building upon the social exchange theory, the purpose of this study is to assess the validity (content, construct, convergent, and discriminant) and reliability of Organ's (1988) measures of centralization and formalization and, thereby to add clarity to the operationalization of this construct. The remainder of the paper is organized as follows. First, the foundation literature for the study will be reviewed, followed by research method, and findings are presented and discussed. Lastly, research suggestions are offered, and the contribution and the limitations of the study are highlighted.

## 2. Literature review

### 2.1 Organizational citizenship behavior

OCB has been widely used in the previous studies as it has been found to affect the overall organizational effectiveness (Walz & Niehoff, 1996). OCB is also known as extra-role behaviors which are the act of performing beyond the stated job requirement. Subordinates impulsively go beyond the employment contract and carry out non-obligatory task without expecting explicit rewards and recognition (Organ, 1988). Hence, understanding the determining conditions and reasons that lead to such behaviors is instrumental to yield an insight into when and how these acts happen. In fact, LePine et al. (2002) have demonstrated that leaders' support is the strongest predictor of significant OCB by subordinates. According to Aquino and Bommer (2003), they discovered that OCB can enhance the social attractiveness in a work unit. As OCB is normally labeled as positive behavior, those who exhibit OCB may become more socially attractive which makes them more likely to be appreciated as friends or partners.

Literatures in the past have identified two main approaches known as "role" and "extra-role behavior" in defining the concept of OCB. Extra role means the individual contributions in the workplace which go beyond the specified role requirements and not recognized by the reward system. Castro, Armario, and Ruiz (2004) concluded that it is not easy for a firm to differentiate between "role" and "extra role" performances as managerial and employee perceptions of their subordinates' performances do not correspond and subject to the satisfaction of the subordinates in the workplace. A great deal of researches have suggested that there are five basic personality factors which affect most of the variance in personality (e.g., Costa & McCrae, 1992) and these dimensions are known as Big Five dimensions which are classified as conscientiousness, altruism, courtesy, sportsmanship, and civic virtue. Hence, this study adopts the repertoire of Organ's initial definition of OCB with five dimensions and each dimension is discussed more in details in the following sessions.

#### 2.1.1 Civic virtue

Civic virtue is defined as subordinate participation in organization political life and supporting the administrative function of the organization (Deluga, 1998). It is referring to the responsibility of the subordinates to participate in the life of the firm such as attending meetings which are not required by the firm and keeping up with the changes in the organization (Organ, 1988). This dimension of OCB is actually derived from Graham's findings which stated that employees should have the responsibility to be a good citizen of the organization (Graham, 1991). These behaviors reflect an employees' recognition of being part of organization and accept the responsibilities which entails (Podsakoff et al., 2000). Other researchers have found that civic virtue enhances the quantity of performance and help to reduce customer complaints (Walz & Niehoff, 1996).

#### 2.1.2 Conscientiousness

Conscientiousness is used to indicate that a particular individual is organized, accountable and hardworking. Organ (1988) defined it as dedication to the job which exceed formal requirements such as working long hours, and volunteer to perform jobs besides duties. In addition to that, studies have also revealed that conscientiousness can be related to organizational politics among employees (McCrae & Costa, 1987). Kidder and McLean Parks (1993) posited the fact that males are more like to engage in conscientious behavior than females in view of the fact that males has preference for equity over equality.

#### 2.1.3 Altruism

Smith, Organ, and Near (1983) defined altruism as voluntary behaviors where an employee provides assistance to an individual with a particular problem to complete his or her task under unusual circumstances. Altruism refers to a member helping other members of the organization in their work. Podsakoff et al. (2000) has demonstrated that altruism was significantly related to performance evaluations and correspondingly, positive affectivity.

#### 2.1.4 Courtesy

Courtesy includes behaviors, which focus on the prevention of problems and taking the necessary step so as to lessen the effects of the problem in the future. In other words, courtesy means a member encourages other workers when they

are demoralized and feel discouraged about their professional development. Early research efforts have found that employees who exhibit courtesy would reduce intergroup conflict and thereby diminishes the time spent on conflict management activities (Podsakoff et al., 2000).

#### 2.1.5 Sportsmanship

Organ (1988) defined sportsmanship as the behavior of warmly tolerating the irritations that are an unavoidable part of nearly every organizational setting. Podsakoff and MacKenzie (1997) revealed that good sportsmanship would enhance the morale of the work group and subsequently reduce employee turnover.

### 3. Research methodology

The main focus of this paper is to assess the goodness of measure (validity and reliability) of the organizational citizenship behavior measurement. The environment in which this study was carried out was in the Malaysian manufacturing sector.

#### 3.1 Sample

Data for this study was collected from 113 managers working in 10 large scale manufacturing firms in Malaysia. The questionnaires, together with cover letters (seeking their cooperation and explaining the purpose of the study) and self-addressed stamped envelopes (for the completed questionnaires) were mostly personally handed to managers after a brief personal communication concerning the topic and the goals of the study.

#### 3.2 Survey instrument

This study uses the five dimensions of OCB proposed by Organ (1988) as researchers have acknowledged the dimensions as the most widely used in organizational related studies (Gonzalez & Garazo, 2006). Twenty items were used to determine the level of citizenship behaviors among subordinates based on five main dimensions. Likert-like scale was used to measure the OCB elements, which used the anchors of 1 (Strongly Disagree) to 7 (Strongly Agree).

### 4. Research results

#### 4.1 Sample Characteristics

Out of the 113 respondents, 61% of them were male, and 39% were female. The respondents were managers from different functional areas and were between the age group of 20 to 54 years. Twenty eight percent of the respondents hold bachelor degrees, followed by diploma holder (38%), and the rest have high school qualification (34%). A majority, 89% of them have been working for less than 10 years, whereas 11% of the respondents have worked for more than 10 years.

### 5. Testing the goodness of measure for the organizational structure construct

#### 5.1 Content Validity

Content validity refers to the extent to which an instrument covers the meanings included in the concept (Babbie, 1992). In a similar vein, Rubio, Berg-Weger, Tebb, Lee, and Rauch (2003) refer to content validity as to the extent to which the items on a measure assess the same content or how well the content material was sampled in the measure. Essentially, the goals of content validity are to clarify the domain of a concept and judge whether the measure adequately represents the domain (Bollen, 1989). Content validation results in a theoretical definition that explains the meaning of the variable in question (Bollen, 1989) and is guaranteed by the literature overview (Gomez, Lorente & Cabrera, 2004).

#### 5.2 Construct Validity

Researchers often use factor analytic techniques to assess construct validity of the scores obtained from an instrument (McCoach, 2002). Factor analysis represents a broad category of approaches and mathematical procedures for determining the latent variable structure of observed variables (Nunnally, 1978). In this study, an exploratory factor analysis with an orthogonal rotation of varimax was used to evaluate the construct validity of the instrument. In turn, to evaluate the construct validity, we performed a principal components analysis on the set of 20 items of the scale. The result of this analysis is summarized in Table 1.

The analysis extracted only a 4 factor solution, each with eigenvalues above one, which explain 59.64% of the total variance. The KMO was 0.817 indicating a meritorious level based on Kaiser and Rice (1974) and the Bartlett's test for sphericity was significant ( $\chi^2 = 976.34$ ,  $p < 0.01$ ). Based on the rotated component matrix, out of the 20 items, 4 items were dropped either due to loadings less than 0.55 based on a sample size of 100 suggested by Hair et al. (2006) or cross loading in another component. Even though there were some items where cross loadings slightly exceeded 0.30, those items were retained because factor analysis should take into consideration the need for a conceptual basis for the variables analyzed (Hair et al., 2006).

### 5.3 Convergent Validity

Further to the construct validity test using the factor analysis (between scales) another factor analysis but this time using the within scale was utilized to test the convergent validity. According to Campbell and Fiske (1959), convergent validity refers to all items measuring a construct actually loading on a single construct. Convergent validity is established when items all fall into 1 factor as theorized. Convergent validity was carried out through a within factor, factor analysis in order to obtain a more in-depth judgment of the dimensionality of the construct under study (Hair et al, 2006). All the four factors displayed unidimensionality with Civic Virtues, KMO was 0.84 explaining 59 percent of the variation; Conscientiousness, KMO was 0.76 explaining 58 percent of the variation; Altruism, KMO was 0.70 explaining 76 percent of the variation; Courtesy, KMO was 0.74 explaining 60 percent of the variation. Thus, the analysis provided evidence of convergent validity.

### 5.4 Discriminant Validity

Discriminant validity refers to the extent to which measures of 2 different constructs are relatively distinctive, that their correlation values are neither an absolute value of 0 nor 1 (Campbell and Fiske, 1959). A correlation analysis was done on the 4 factors generated and the result is presented. As can be seen all the factors are not perfectly correlated where their correlation coefficients range between 0 or 1. Hence, we can conclude that discriminant validity has been established.

### 5.5 Nomological Validity

Nomological validity which is another form of construct validity is the degree to which a construct behaves as it should within a system of related constructs called a nomological set (Cronbach & Meehl, 1955). Cronbach and Meehl (1955) posited that in order to provide evidence that a measure has construct validity, a nomological network has to be developed for its measure. In essence what this means is that we have to develop a nomological link between the variable we would like to validate and another variable which has been proven theoretically to be related to this particular variable. For example it has been proven in many researches that commitment increases as job satisfaction increases. So when we validate the construct validity of a job satisfaction measure, we will use commitment to test the nomological validity. Leader-Member exchange (LMX) has been shown to significantly influence the level of OCB among employees as a high quality of LMX may motivate employees to exhibit extra-role behaviors without any formal rewards from the organizations. (Settoon et al., 1996). As LMX has been shown to be related to OCB, we used the Loyalty-Affect dimension of LMX to be correlated with the 4 dimensions of OCB and the result is presented in Table 3. As theorized, all the 4 dimensions were significantly related to LMX thus confirming nomological validity.

### 5.6 Reliability

Reliability measures the degree to which the test score indicates the status of an individual item on the factors defined by the test, as well as the degree to which the test score demonstrates individual differences in these traits (Cronbach, 1947 as cited in McCoach, 2002). "A reliability coefficient demonstrates whether the test designer was correct in expecting a certain collection of items to yield interpretable statements about individual differences" (Cronbach, 1951, p. 297 as cited in McCoach, 2002). Generally, Nunnally (1978) proposed 0.70 to be the minimum acceptable standard for internal consistency. The reliability coefficient was 0.82 for civic virtue, 0.74 for conscientious, 0.85 for altruism and 0.76 for courtesy. Hence, it can be concluded that these measures possess sufficient reliability.

## 6. Discussion and conclusion

The positive contribution of OCB to organizational performance is well acknowledged by the literatures (e.g., Castro et al., 2004; Podsakoff & Mackenzie, 1997; Emmerik & Euwema, 2007). However, understanding the importance of the dimensionality of OCB can be extremely useful for organizational behavior studies. Although the dimensionality of OCB has been studied in previous researches, no known researches have been found to empirically study the dimensionality of OCB in the Malaysia context. Hence, this study has added to the growing body of research in OCB by using a series of tests to test for validity and reliability of the constructs. Preliminary results demonstrated a valid (content, construct, convergent, discriminant and nomological) as well as reliable four dimension scale for measuring OCB.

This study has chosen large scale manufacturing companies' employees in Malaysia as respondents as there exists bidirectional relationship between supervisors and their subordinates. Currently, the manufacturing sector is considered as one of the cornerstone of Malaysia's economic diversification strategy. As revealed by Abdullah (1996), Malaysian managers are only familiar with one level of interaction; hence, it is time to learn through exposure to different work settings, social interaction, and observation of work related practices not only in intracultural levels, but at the intercultural levels, and cross-cultural levels.

This study starts by testing the 20 items from five dimensions of OCB as proposed by Organ (1988). Nonetheless, Bolino (1999) has argued that it is necessary to seek further insight into the topic given the high correlation among

some of its dimensions. In this research, it was found that only four dimensions of OCB, namely civic virtue, conscientious, altruism, and courtesy are capable of explaining sufficient variation in the construct being measured. Nonetheless sportsmanship was not found to be a valid dimension in Malaysia context. The result is not surprising as OCB may be referred as a general tendency to be cooperative within an organizational setting (LePine et al., 2002; Koster, 2007). In addition to that, previous researchers have demonstrated that “helping behavior” has a negative effect on organizational performance (Castro, 2004), hence it is not surprising to see that sportsmanship is not an important dimension in OCB, particularly in Malaysia. The results of this study show some interesting similarities and differences concerning the dimensionality of OCB. Thus, having a guide like the present study to follow can be very helpful to researchers in OCB related areas.

### 7. Limitations and future research

Although the study has provided sufficient insights into the studied dimensions of OCB, the results could not be generalized in view of the fact that all the variables were taken from the same source and there is a possibility of common methods variance. Thus, longitudinal studies are likely to provide a better insight into the dimensionality of OCB over a period of time. In addition, different cultural and international contexts may limit the generalizability of results. It is unclear whether the findings may have the same implications for OCB in different cultural environment as the values of the participants in this current study might not accurately represent the values of other countries'. Comparative studies across professions, cultures, and industries are needed in order to truly understand many of the constructs included in this study.

### References

- Abdullah, A. (1996). *Going glocal: Cultural dimensions in Malaysian management*. Kuala Lumpur: Malaysian Institute of Management.
- Aquino, K. & Bommer, W. H. (2003). Preferential mistreatment: How victim status moderates the relationship between organizational citizenship behavior and workplace victimization. *Organizational Science*, 14, 4, 374-385.
- Babbie, E. (1992). *The Practice of Social Research* (6th ed.). Belmont, CA: Wadsworth.
- Bateman, T. S. & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and citizenship. *Academy of Management Journal*, 26, 4, 587-595.
- Bell, S. & Menguc, B. (2002). The employee-organization relationship, organizational citizenship behaviors, and superior service quality. *Journal of Retailing*, 78, 2, 131-146.
- Bettencourt, L. A. & Brown, S. W. (1997). Contact employees: Relationship among workplace fairness, job satisfaction and prosocial behaviors. *Journal of Retailing*, 73, 39-61.
- Bhal, K. T. (2006). LMX-citizenship behavior relationship: Justice as a mediator. *Leadership & Organization Development Journal*, 27, 2, 106-117.
- Bolino, M. C. (1999). Citizenship and impression management: Good soldiers or good actors?" *Academy of Management Review*, 24, 1, 82-98.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.
- Campbell, D. T. and Fiske, D. W. (1959). *Convergent and discriminant validation by the multitrait –multimethod matrix*. *Psychological Bulletin*, 56(1), pp. 81-105.
- Castro, C. B., Armario, E. M. & Ruiz, D. M. (2004). The influence of employee organizational citizenship behavior on customer loyalty. *International Journal of Service Industry Management*, 15, 1, 27-53.
- Chow, W. S. and Lui, K. H. (2001). *Discriminating factors of information systems function performance in Hong Kong firms practicing TQM*. *International Journal of Operations and Production Management*, 21(5/6), pp. 749-771.
- Costa, P. T. & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO personality inventory. *Psychological Assessment*, 4, 1, 5-13.
- Deluga, R. J. (1998). Leader-Member exchange quality and effectiveness ratings: The role of subordinate-supervisor conscientiousness similarity. *Group and Organizational Management*, 23, 189-216.
- Dimitriades, Z. S. (2007). The influence of service climate and job involvement on customer-oriented organizational citizenship behavior in Greek service organizations: A survey. *Employee Relations*, 29, 5, 469-491.
- Emmerik, H. v. & Euwema, M. C. (2007). Who is offering a helping hand? *Journal of Managerial Psychology*, 22, 6, 530-548.
- Gomez, P. J., Lorente, J. J., Cabrera, R. v. (2004). Training practices and organizational learning capability: Relationship and implications. *Journal of European Industrial Training*, 28, 2, 234-256.

- Gonzalez, J. V. & Garazo, T. G. (2006). Structural relationships between organizational service orientation, contract employee job satisfaction and citizenship behavior. *International Journal of Service Industry Management*, 17, 1, 23-50.
- Graham, J. W. (1991). An essay on organizational citizenship behavior. *Employee Responsibilities and Rights Journal*, 4, 249-270.
- Hair, J. F., Anderson, R. E., Tatham, R. L. & Black, W. C. (2006). *Multivariate data analysis with readings* (4<sup>th</sup> ed.). Englewood Cliff, NJ: Prentice Hall.
- Igbaria, M., Iivari, J. and Maragahh, H. (1995). *Why do individuals use computer technology? A Finnish case study*. *Information and Management*, 5, pp. 227-238.
- Kaiser, H. F. and Rice, J. (1974). Little jiffy, Mark IV, *Educational and Psychology Measurement*, 34, 111-117
- Kerlinger, F. N. (1986). *Foundations of Behavioral Research*. Texas: Rinehart and Winston.
- Kidder, D. L. & McLean, P. J. (1993). The good soldier: Who is (s)he? In D. P. Moore (Ed.). *Academy of Management Best Papers Proceedings*, 363-367.
- Koster, F. (2006). Organizational citizens of reciprocal relationships? An empirical comparison. *Personnel Review*, 35, 5, 519-539.
- LePine, J. A., Erez, A. & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior. A critical review and meta-analysis. *Journal of Applied Psychology*, 87, 1, 52-65.
- Lo, M. C., Ramayah, T. & Kueh, J. S. H. (2006). An Investigation of Leader Member Exchange Effects on Organizational Citizenship Behavior in Malaysia. *Journal of Business and Management*, 12, 1, 5-23.
- McCrae, R. R. & Costa, P. T. Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.
- McCoach, D. B. (2002). A validation study of the school attitude assessment survey. *Measurement and Evaluation in Counseling and Development*, 35, 66-77.
- Nunnally, J. C. (1967). *Psychometric theory*, New York: McGraw-Hill.
- Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw Hill.
- Organ D. W. & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 4, 775-803.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington Books, Lexington, MA.
- Podsakoff, P. M. & Mackenzie, S. B. (1997). The impact of organizational citizenship in organizational performance: Review and suggestion for future research. *Human Performance*, 10, 133-151.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 3, 513-563.
- Podsakoff, P. M., MacKenzie, S. B. & Bommer, W. H. (1996). A meta-analysis of the relationships between Kerr and Jermier's substitutes for leadership and employee job attitudes, role perceptions, and performance. *Journal of Applied Psychology*, 81, 380-399.
- Rubio, d. M., Berg-Weger, M., Tebb, S. S., Lee, E. S. & Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. *Social Work Research*, 27, 94-104.
- Settoon, R. P., Bennett, N. & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81, 219-217.
- Smith, C. A., Organ, D. W. & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68, 653-663.
- Walz, S. & Niehoff, B. P. (1996). Organizational citizenship behaviors and their effect on organizational effectiveness in limited-menu restaurants, paper presented at Academy of Management Meetings, Cincinnati, OH.

Table 1. Factor analysis results for organizational citizenship behavior

Items	Component			
	Civic Virtue	Conscientious	Altruism	Courtesy
I eager to tell outsiders good news about the company	<b>.769</b>	.195	-.044	.199
I am willing to stand up to protect the reputation of the company	<b>.765</b>	.139	.005	-.007
I actively attends company meetings	<b>.666</b>	.205	.049	.227
I do not mind taking on new challenging assignments	<b>.647</b>	.162	.474	.149
I make constructive suggestions that can improve the operation of the company	<b>.611</b>	.381	.231	.090
I am willing to coordinate and communicate with colleagues	.102	<b>.792</b>	.185	.069
I take one's job seriously and rarely makes mistakes	.092	<b>.675</b>	.274	.294
I often arrives early and starts to work immediately	.326	<b>.617</b>	-.007	.241
I complies with company rules and procedures even when nobody watches and no evidence can be traced	.254	<b>.562</b>	.002	-.011
<i>I avoid consuming a lot of time complaining about trivial matters*</i>	.217	.546	.092	.333
I am willing to assist new colleagues to adjust to the work environment	-.053	.246	<b>.779</b>	.189
I am willing to help colleagues solve work-related problems	-.005	.422	<b>.746</b>	.242
I am willing to cover work assignment for colleagues when needed	.395	.109	<b>.702</b>	.138
<i>I perform only required tasks*</i>	.058	.344	-.563	.154
<i>I try hard to self-study to increase the quality of work outputs*</i>	.304	.395	.453	.078
I avoid taking actions that hurts others	.012	.168	.059	<b>.842</b>
I avoid hurting other people's right to common/shared resources (including clerical help, material, etc)	.209	.355	-.030	<b>.723</b>
I do not initiate actions before consulting with others that might be affected	.110	.086	.275	<b>.670</b>
I try to avoid creating problems for colleagues	.443	-.145	.367	<b>.540</b>
<i>I avoid focusing on what's wrong with his/her situation*</i>	.413	.178	-.007	.472
Percentage Variance (59.64%)	16.626	15.437	13.971	13.605
Eigenvalue	3.325	3.087	2.794	2.721

Note: Values below 0.3 are suppressed

Items with \* are not used in the further analysis due to low loading or cross loading

Table 2. Intercorrelations of the major constructs

	Civic Virtue	Conscientious	Altruism	Courtesy
Civic virtue	1.000			
Conscientious	0.528**	1.000		
Altruism	0.398**	0.391**	1.000	
Courtesy	0.475**	0.439**	0.427**	1.000

\*p<0.05, \*\* p<0.01

Table 3. Results of the nomological validity test

	Civic Virtue	Conscientious	Altruism	Courtesy
Dependent				
Loyalty-Affect	.47**	.32**	.41**	.21*

\*\*p< 0.01, \*p< 0.05

Table 4. Reliability coefficients

Variable	Number of Items	Items Deleted	Cronbach Alpha
Civic virtue	4	-	0.82
Conscientious	6	2	0.74
Altruism	4	1	0.85
Courtesy	4	1	0.76

Table 5. Descriptive for the major constructs

Variable	Mean	Standard Deviation
Civic virtue	5.11	0.88
Conscientious	5.27	0.82
Altruism	5.69	0.85
Courtesy	5.48	0.77

Note: All items used a 7-point Likert scale with (1=Strongly disagree and 7=Strongly agree)