

Full Length Research Paper

Verifying the effects of organizational justice and work values upon organizational performance: using organizational citizenship behavior as the dual mediator

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Accepted 26 April, 2013

This study aims at verifying the effects of employees' perception of organizational justice and work values on organizational performance at a Taiwanese state-run company, with Organizational Citizenship Behavior (OCB) being the dual mediator. The study interviewed employees of a Taiwanese state-run company with a special focus on those holding key positions, selected by simple random sampling. Linear Structural Equation Modeling (SEM) was employed to verify the suitability of the overall model, the structural model and measurement model, followed by an examination of dual mediation effects using the Sobel Test, Bootstrapping and the Mackinnon PRODCLIN 2 program. The research results suggest that, at this particular Taiwanese state-run company, the employees' perception of organizational justice has a positive significant effect on organizational performance and that the employees' perception of organizational justice has a positive significant effect on OCB. Furthermore, OCB has a positively significant effect on organizational performance and the employees' work values significantly affect OCB. Lastly, the employees' work values significantly affect organizational performance. Apparently, OCB has a partially *dual* mediation effect and, as this study implies, is an important catalyst for improvements in organizational performance. It is, however, imperative that approaches other than OCB be taken to enhance organizational performance.

Key words: Organizational justice, work values, organizational citizenship behavior, organizational performance, dual-mediation effect.

INTRODUCTION

Research background and purposes

Due to their monopolistic nature, Taiwanese state-run companies have been operating in a competition-free environment until changes in the global situation sparked a trend toward privatization of government-owned businesses that left their employees' job security severely

threatened. That explains the growing sense of urgency to understand employees at state-run companies and help them achieve organizational cohesion by adopting positive work values. Consequently, it is a proactive and meaningful effort to study the post privatization relevant work attitudes/behavior of employees at companies previously run by state (Chen, 2007).

Regarding the *organizational justice* perspective, Masterson et al. (2000) found that the more fairly a manager treats the employees, the better the employees display non-typical behaviors (excluded from their job descriptions) and contribute to the organization with improved work performance. Moorman (1991) agreed that organizational justice is predictive of Organizational Citizenship Behavior (OCB) to a certain extent. That is, a higher level of perceived organizational justice enables employees to better identify with their organizations, offer colleague assistance frequently, and perform tasks dutifully without inappropriate/negative behavior.

As for the *work values* perspective, Yousef (2011) argued that an individual's attitudes toward work and job performance are both closely linked to his/her work values. In other words, work values exert a tremendous effect on how an individual performs on, develops, and chooses jobs. However, further efforts are needed to verify whether work values derived from the Western culture remain predictive, to a certain degree, of work behavior in non-Christian countries/regions.

For more than 10 years since it was first coined by Organ in 1983, the term "organizational citizenship behavior" has been frequently cited either in academic circles or in the industry during discussions about how employees' work behavior affect the overall organizational performance (Van et al., 1994).

Consequently, this study is an attempt to verify and grasp how organizational performance of a specific Taiwanese state-run company is affected by the employees' perception of organizational justice and work values, with OCB being the dual mediator. The five purposes of this study are specified as follows:

1. To verify whether the organizational performance of a Taiwanese state-run company is positively and significantly affected by its employees' perception of organizational justice.
2. To verify whether the OCB of a Taiwanese state-run company is positively and significantly affected by its employees' perception of organizational justice.
3. To verify whether employees' OCB has a significantly positive effect on the organizational performance of a Taiwanese state-run company.
4. To verify whether employees' work values have a significantly positive effect on the OCB of a Taiwanese state-run company.
5. To verify whether employees' work values have a significantly positive effect on the organizational performance of a Taiwanese state-run company.

LITERATURE REVIEW

Literature on the main perspectives of this study (that is organizational justice, work values, OCB and organizational performance) is reviewed in the following

paragraphs:

Literature concerning organizational justice

For a long time, organizational justice has been an inescapable managerial issue facing business operators. Theoretically, organizational justice is an important construct with regards to organizational management. It is centered on a discussion of whether an organization's practices in resource distribution and in determining rewards/punishments are subjectively perceived by employees as fair.

Organizational justice in the conventional sense is referred particularly to justice in the distribution of gains, or how fairly gains are distributed within an organization (Bierhoff et al., 1986; Tai, 2011). While the term "distributive justice" is defined as an individual's perception of how fairly resources are distributed in an organization (Folger and Greenberg, 1985), procedural justice is focused on justice in the decision-making process. In his Referent Cognitions Theory, Folger (1986) discussed referent outcome and referent instrumentalities, from which he derived the notion that distributive justice and procedural justice affect each other, which means a lack of procedural justice results in greater distributive injustice on how the gains are distributed among organization members. On the contrary, will procedural justice receive more attention when the gains are unfairly distributed? Bies and Moag (1986) put forth the concept of "interactional justice," saying that, when an organization is in operation, how an individual member feels about interacting with the environment will affect his/her perception of justice. In other words, all parties involved in a conduct of exchange expect rewards in proportion to how much they have contributed to, or sacrificed for, the outcome.

To sum up, organizational justice is conceptually defined in this present study as "a discussion of whether an organization's practices in resource distribution and in determining rewards/punishments are subjectively perceived by employees as fair." That definition involves: (1) distributive justice; (2) procedural justice; (3) interactional justice (Chen et al., 2007). In this present study, the measurement perspectives of organizational justice are patterned after those proposed by Chen et al. (2007).

Literature concerning work values

Organizational psychology is based on the supposition that an individual's values are closely related to his/her attitudes toward work and job performance, which means work values exert a tremendous effect on how an individual performs on, develops and chooses jobs. As work values vary from person to person, they may not

have similar effects on an individual's work-relevant behavior or ideas (McClelland, 1961; Furnham, 1990).

The definition of work values vary, depending on the researcher's purpose and theoretical background. Brown (2002) said an individual's need to properly play his/her role in the workplace could be satisfied through work values, which constitute a part of the personal value system. Nord et al., (1998) defined work values as the results or situation an individual expects to achieve through work. While work values, according to Meglino and Ravlin (1998), embody an employee's pattern of expectations for his/her work behavior. They are defined by Dose (1997) as a set of long-term standards/criteria an employee adopts for sustained, stable guidance regarding work behavior and goal selection. Chen (2010) said work values are work-relevant goals that reflect not only an individual's internal needs, but also the characteristics/nature of works he/she seeks when engaged in workplace activities. Work values, as Jao (2010) contended, are an individual's preferences, beliefs, or judgment criteria with regard to work-related matters. Such values, Jao said, help meet an individual's internal needs while offering guidance for external behavior and attitudes, so he/she can eventually attain work-related goals. Most scholars agree that work values are connected to personal needs, subjective judgments, preferences and criteria (Chen et al., 2007).

To sum up, this study defined work values as "a subjective judgment an individual makes under the influence of working conditions/results in order to meet his/her highly valued internal needs. The judgment represents what a person prefers, believes in and insists on, which in turn provides guidance for personal behavior and criteria for work evaluation." Following the categories proposed by Chen et al. (2007) this study addresses work values in four sub-perspectives, which are: (1) the degree of diligence: steady effort; (2) the decrease in leisure time; freedom from time-consuming duties, responsibilities, or activities; (3) stoicalness: seemingly indifferent to or unaffected by pleasure or pain; impassive and (4) the degree of independence: the state or quality of being independent.

Literature concerning organizational citizenship behavior

Seeking excellence and improved quality has always been an organization's ultimate objective. Organizational Citizenship Behavior (OCB) is an organization's member behavior that exceeds his/her role officially laid down in the organizational rules, which is almost always a spontaneous personal expression that suggests something positive for the long-term organizational performance (Hsu, 2001, 2002; Lee et al., 2012) Likewise, Organ (1988) said OCB contributes to the organizational effectiveness. Apparently, whether or not an organization

achieves its goals is closely related to OCB. Non-Taiwanese researchers focused on OCB studies such as Podsakoff and Mackenzie (1994), and Podsakoff et al. (1997) surveyed U.S. insurers and paper mills and found out that most of the OCB perspectives positively affected a group's performance. OCB studies in Taiwan were conducted by Wang (1995) and Guo (2004), both of whom found a positive correlation between OCB and organizational effectiveness.

While Organ (1988) mentioned the close connection between organizational culture and OCB, Taiwanese studies in this regard are mostly focused on state or privately run businesses or business units, and few of them address issues. An organization's member behavior is considered a type of organizational behavior, a notion stemming from the Hawthorne studies concluding that the motives behind working and social interaction are major determinants of a person's work performance in an organization (Cheng, 2003).

The concept of OCB can be traced back to a study conducted by Katz (1964) that involved an organization's member behavior exceeding his/her presumed role. Based on the Role Theory, OCB explains how an organization member shapes his/her role and behavior as expected by the organization (Jiang and Cheng, 2003).

Robbins (2001) defined OCB as "an employee's spontaneous, unconditional behavior that is excluded from the official job description and contributes to organizational effectiveness." The conceptual definition of OCB proposed by Robbins (2001) was adopted in the present study (Lee^c, 2011).

While there is a considerable amount of literature addressing the dimensions of OCB, this paper's author was inspired by experts' theoretical models and decided to measure the "teachers' OCB" variable in the four perspectives put forth by Hsieh et al (2010), namely "identification with the organization," "colleague assistance," "absence of selfish pursuit of profits" and "dedication to work". In this study, the operational definition of OCB is based on the definitions/ categorization proposed by Hsieh, Lang, and Chen.

Literature concerning organizational performance

There are many ways to measure a company's performance with indicators varying among research topics. As a rule, financial indicators measure the financial performance, which is a tool to assess how well a company fares (Gasbarro and Zumwalt, 2002).

Venkartrama and Ramanujam (1986) proposed corporate-performance measures in three categories: (1) financial performance: return on investment (ROI) and sales growth; (2) operating performance: product quality, market share, attractiveness of new products, and value-added ratio; (3) organizational effectiveness: employee morale, etc.

According to Ramaswamy et al. (1996), there are multiple standards for performance evaluations enabled by financial indicators. That is, single constructs such as Return on Assets (ROA), Return on Sales (ROS), ROE and sales growth could be adopted as performance measures, depending on the target and scope of research.

Hung (2003) said organizational performance in a broader sense comprises such elements as internal efficacy, market performance, financial performance, operating performance, Integrated Drive Electronics (IDE) performance and Value Added Intellectual Coefficient (VAIC) performance. The internal efficacy refers to the effects and efficiency of a company's internal operations. To achieve a satisfactory degree of effectiveness, an organization must make internal efforts to attract/retain well-competent talent; improve management-employee communications; increase employees' commitment to the company; develop human resources; enhance flexibility and learning ability on the organizational level; create a good corporate culture and reputation, or image.

To sum up, this study conceptually defined *organizational performance* as "the performance requirements that a corporate organization attracts/retains well-competent talent; improves management-employee communications, increases employees' commitment to the company; develops human resources; enhances flexibility and learning ability on the organizational level; creates a good corporate culture and reputation or image." The *Organizational performance* of a Taiwanese state-run company (which is the focus of this study) was measured using the six indicators proposed by Hung (2003): (1) internal efficacy; (2) market performance; (3) financial performance; (4) operating performance; (5) IDE performance; (6) VAIC performance.

Literature concerning the relationship between organizational justice and organizational performance

Tang (2008) found that organizational justice, leadership styles and locus of control all exert a significantly positive effect on self-efficacy and organizational performance, including their sub-perspectives. Besides, Wei (2010) also mentioned that organizational justice has a significantly positive effect on the organizational performance of small- and medium enterprises (SMEs).

It is worth noting that there are few studies on the relationship between organizational justice and organizational performance. The studies mentioned above displayed similar viewpoints, even if they discuss businesses that are not state-run or of a different size, which justified the following hypothesis:

H1: The organizational performance of a Taiwanese state-run company is positively and significantly affected

by its employees' perception of organizational justice.

Literature concerning the relationship between organizational justice and OCB

Among previous studies conducted on organizational justice and OCB worldwide, many suggest that the former is effectively predictive of the latter. Moorman (1991) found that procedural justice, and not distributive justice is predictive of OCB in a unique way, while Niehoff and Moorman (1993) discovered the direct effect of organizational justice on employees' OCB. Konovsky and Pugh (1994) concluded that procedural justice is an important determinant of employees' OCB. In their study on joint ventures and state-owned enterprises in China, Wong et al. (2006) found that, with trust in the organization and in its supervisor(s), employees' OCB is positively affected by procedural, distributive and interactional justice.

The two major theoretical grounds for how organizational justice affects OCB are: (1) The social exchange theory proposed by Homans (1961), who was inspired by the exchange theory in economics to state that social behavior in the social exchange process is commodity trading in nature and people, who are invariably selfish and self-centered, consider social exchanges from the *cost-benefits* point of view. Blau (1964) considered reciprocity and equity the two primary hypotheses underlying the social exchange process; (2) The Equity Theory put forth by Adams (1965), who said while employees care about the amount of rewards for their contribution on job, they also compare their contributions or rewards against colleagues. They will perceive justice when the comparison reveals no difference in the amount of contribution and rewards, but injustice in the organization will be sensed if the ratio is larger or smaller than 1. Organ and Konovsky (1989) argued that OCB refers to the afore-mentioned "relative contribution." Intimidated by the organizations' official reward/punishment system, employees who perceive unfairly treatments dare not lower productivity or performance level. Instead, they would deliberately perform worse in terms of OCB.

The following hypothesis is justifiably derived from the analysis above:

H2: The OCB of a Taiwanese state-run company is positively and significantly affected by the employees' perception of organizational justice.

Literature concerning the relationship between OCB and organizational performance

Hsieh (2009) said that corporate strategies exert a moderating effect on service-oriented OCB and the

productivity of organizational performance. In addition, Wu (2010) also mentioned the significantly positive correlations between OCB and organizational performance. And Hsiao (2011) got the research result that OCB had a significantly positive influence on organizational performance.

Focusing on various departments of a Taiwan's international tourist hotels, Kuo (2012) examined the relations among employees' perceived organizational innovations (that is, technological and managerial innovations), service quality, organizational performance and OCB. He concluded that OCB has a moderating effect on the relationships between *organizational innovations and service quality*, *managerial innovation and service quality*, and *service quality and organizational performance*.

The studies above displayed similar viewpoints even if they do not discuss companies from the same industry or of the same size, which prompted this study to justifiably propose the following hypothesis:

H3: The employees' OCB has a significantly positive effect on the organizational performance of a Taiwanese state-run company.

Literature concerning the relationship between work values and OCB

Chen (2011) mentioned the significantly positive correlation between teachers' work values and OCB at the comprehensive occupational department of a vocational high-school in "A Study on the Relationship between Work Values and Organizational Citizenship Behaviors of Comprehensive Occupational Department Teachers in Senior Vocational Schools."

According to Lin (2010) in "A study of the relationship among work values, organizational commitment and organizational citizenship behavior of elementary school teachers in Yun-Chia area," the work values of elementary-school teachers in Yulin and Chiayi Counties are positively correlated to the OCB.

Kao (2011) proved the significantly positive effect of police college students' work values on psychological contracts and professional commitments, and a similar effect of their psychological contracts and professional commitments on service-oriented OCB in "Work Values and Service-Oriented Organizational Citizenship Behavior: The Mediation of Psychological Contract and Professional Commitment of the case in Taiwan Police College."

The studies above displayed similar viewpoints even if they do not discuss companies from the same industry or of the same size, which prompted this study to justifiably propose the following hypothesis:

H4: The work values of employees exert a significantly positive effect on the OCB of a Taiwanese state-run

company.

Literature concerning the relationship between work values and organizational performance

In his article entitled "Research on Work Values, Morale, Internal Marketing, Professional Commitment, and Organizational Performance of Medical Technologists in Laboratories in Tainan," Wu (2007) showed that work values, internal marketing, morale and professional commitment significantly affect organizational performance either in a multiple regression analysis or in a hierarchical regression analysis.

From all the related above literature, the following hypothesis, therefore, can be derived:

H5: The work values of employees exert a significantly positive effect on a Taiwanese state-run company's organizational performance.

Figure 1 shows the research framework derived from the afore-mentioned research purposes, hypotheses, and literature review:

RESEARCH METHOD

The targets and design of questionnaire

Respondents of questionnaire survey in this study were selected by simple random sampling. For better content validity and reliability, copies of expert questionnaire were given out to employees of a Taiwanese state-run company with a special focus on those holding key positions after the questionnaire was designed and before pilot testing. After unsuitable items were revised or removed, 600 copies of questionnaire were sent in a post-test to employees at a Taiwanese state-run company, including those holding key positions. After collecting the replies and removing those with incomplete or invalid answers, 210 out of the 600 questionnaire given out were returned valid, hence the 35.0% valid response rate. Consisting of the observable perspectives mentioned earlier, the questionnaire was designed on the basis of Multi-Dimension Measurement and all answers were measured on a 7-point Likert Scale, with 7 being Strongly Agree, while 1 being Strongly Disagree. A higher score represents a greater degree of agreement, and vice versa.

The 12-item questionnaire for *organizational justice* was inspired by the argument of Chen et al. (2007), who addressed the concept in three perspectives including: (1) distributive justice; (2) procedural justice; and (3) interactional justice.

The 16-item questionnaire for *work values* was inspired by the argument of Chen (2007), who addressed the concept in four perspectives consisting of: (1) the degree of diligence; (2) degree of leisure-time avoidance; (3) stoicalness; (4) degree of independence.

Meanwhile, the 16 questionnaire items for *OCB* were patterned after findings put forth by Hsieh et al. (2010) with regard to the four variables of "identification with the organization," "colleague assistance," "absence of selfish pursuit of profits" and "dedication to work", each containing 4 questionnaire items (Lee^c, 2011).

The 18-item questionnaire and measurement indicators for *organizational performance* were inspired by the argument of Hung (2003).

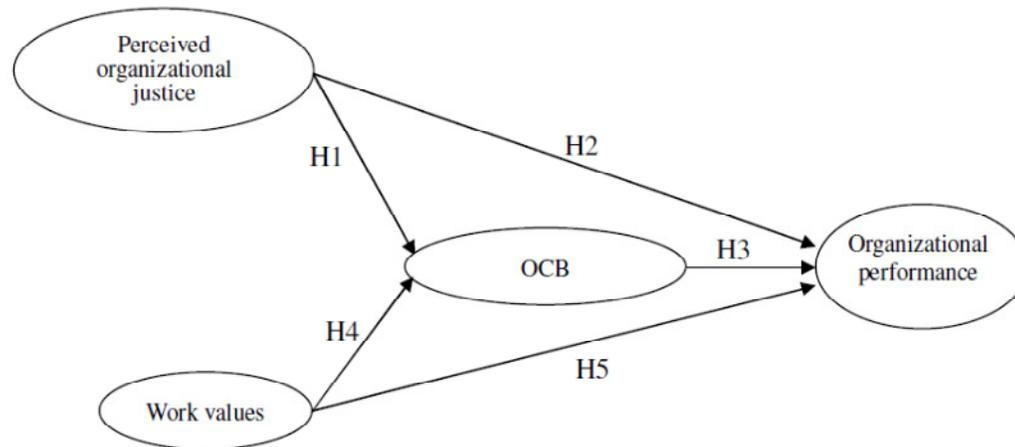


Figure 1. The research framework.

Table 1. Test results regarding suitability of the overall model.

Indices		Standards of judgment	Test results
Measures of absolute Fit	GFI	>0.9	0.913
	AGFI	>0.8	0.902
	RMR	<0.05	0.028
Incremental fit measures	NFI	>0.9	0.902
	CFI	>0.9	0.901
Parsimonious fit measures	PGFI	>0.5	0.581
	PNFI	>0.5	0.573

SEM and measurement model

Linear SEM was used in a Confirmatory Factor Analysis (CFA) of this study's research framework. The questionnaire was constructed on the basis of four latent variables (that is, BSC, corporate innovation activities, intelligent capital, or IC, and organizational performance), each divided into sub-variables that contain several questionnaire items (as stated below). The data collected were processed to create a primary file for the questionnaire. As for the measurement model, this study designed the questionnaire using Multi-Dimension Measurement but adopted the Dual Measurement method to ensure successfully processed/measured data with the aid of computer software (Chen, 2010).

Linear structural model

This study conducted a CFA, an analytical approach contrary to the Exploratory Factor Analysis (EFA), on each pair of the four main perspectives (i.e., organizational justice, work values, OCB and organizational performance). Made up of structural and measurement models, SEM effectively addresses the cause-effect relations among implicit variables. Models in this study were verified in three regards: (1) whether the overall model conforms to the suitability indicators; (2) suitability of the measurement model; (3) suitability of the structural model (Lee^a, 2011).

ANALYSES AND RESULTS

Test results regarding the suitability of the overall model

This study built the overall model framework following a literature review and a factor analysis of sample data and, as recommended by Hair et al. (1998), measured the overall model's suitability in three different ways: the measures of absolute suitability, the incremental suitability measures, and the parsimonious suitability measures. The test results are listed in Table 1 (Chen et al., 2008; Chang and Lee, 2012).

Measurement model

The factor loading measures the intensity of linear correlation between each item under the manifest/explicit variables (or sub-perspectives) and latent/implicit variables (or main perspectives). The closer the factor loading is to 1, the more capable an observable variable (or

Table 2. Judgment indicators for the measurement model.

Main perspectives		Sub-perspectives/ measures	Factor loading	Cronbach's α	Average variance extracted
Perceived justice	organizational	Distributive justice	.83	.83	.62
		Procedural justice	.81		
		Interactional justice	.86		
Work values		Degree of diligence	.88	.81	.59
		Degree of leisure-time avoidance	.81		
		Degree of independence	.83		
		Stoicalness	.75		
OCB		Colleague assistance	.87	.87	.68
		Absence of selfish pursuit of profits	.86		
		Dedication to work	.88		
Organizational performance		Colleague assistance	.87	.84	.65
		Internal efficacy	.83		
		Market performance	.84		
		Financial performance	.86		
		Operating performance	.85		
		IDE performance	.84		
	VAIC performance	.82			

sub-perspective) is in measuring the main perspectives. The present study proves reliable with an above -0.7 factor loading in any sub-perspective. That is, all *sub-perspectives* (i.e., explicit variables) in the proposed *measurement model* properly measure the main perspectives (implicit variables). Meanwhile, the Average Variance Extracted (AVE) measures the unobservable/implicit variables' explanatory power of variance regarding observable ones. A higher AVE suggests greater reliability and convergent validity of an implicit variable. It usually takes an AVE above -0.5 to prove a perspective's explainable variance exceeds the measurement error (Fornell and Larcker, 1981). As AVEs in this study invariably exceed 0.5, the latent/implicit variables have excellent reliability and convergent validity (Table 2 and Figure 2).

Coefficient of determination

Also known as Squared Multiple Correlation (SMC), the Coefficient of Determination is an implicit independent variable's explanatory power regarding an implicit dependent one. That is, the R^2 values shown in Table 3 indicate that the implicit independent variables have adequate explaining power on the implicit dependent variables respectively (Lee^b, 2011).

Path coefficient of implicit variables in the model

After the mode passed an internal suitability test, the path

analysis results of the structural model, or the estimates of standardized path coefficients and Critical Ratio (C.R.) for latent/implicit variables, were calculated. Figure 2 is an illustration of the path analysis results (Lee^b, 2011).

Analytical testing of path effect for the structural model

Regarding the path coefficients for implicit/unobservable variables in the structural model, this study used the Sobel Test, Bootstrapping and Mackinnon PRODCLIN2 to test the structural model's path effect, with OCB (Me) as the dual-mediating factor. Tables 4 and 5 show the test results (Sobel, 1982; MacKinnon et al., 2007; Mackinnon, 2008).

The following conclusions were derived from Table 4:

1. The organizational performance of a Taiwanese state-run company is positively and significantly affected by its employees' perception of organizational justice, with an estimated 0.67 standardized path coefficient (H1 substantiated);
2. The OCB of a Taiwanese state-run company is significantly affected by the employees' perception of organizational justice, with an estimated 0.53 standardized path coefficient (H2 substantiated);
3. Employees' OCB has a significantly positive effect on the organizational performance of a Taiwanese state-run company, with an estimated 0.56 standardized path coefficient (H3 substantiated);
4. Employees' work values exert a significantly positive

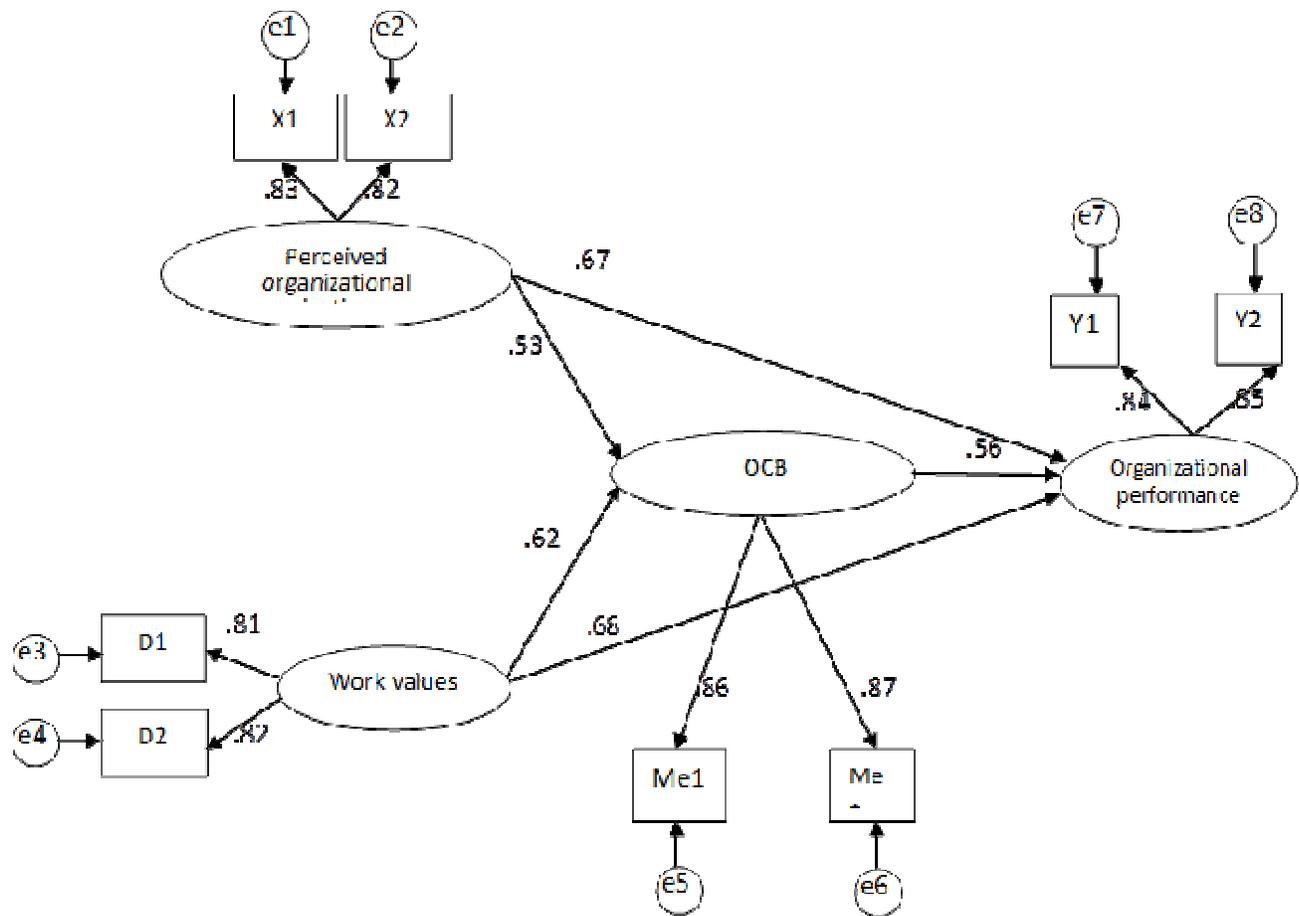


Figure 2. Standardized results of SEM analysis. Notes: Standardized results of SEM analysis were by the dual measurement method to ensure successfully processed/measured data with the aid of computer software (Chen, 2010).

Table 3. Path coefficient of determination.

Coefficients of determination	R ²
Perceived organizational justice (X) → OCB (Me)	.72
OCB (Me) → organizational performance (Y)	.77
Perceived organizational justice (X) → organizational performance (Y)	.73
Work values (D) → OCB (Me)	.76
Work values (D) → organizational performance (Y)	.78

effect on the OCB of a Taiwanese state-run company, with an estimated 0.62 standardized path coefficient (H4 substantiated);
 5. Employees' work values significantly affect a Taiwanese state-run company's organizational performance, with an estimated 0.68 standardized path coefficient (H5 substantiated).

Apparently, *OCB* has a *partially dual mediation effect* and, as this study implies, is a crucial catalyst for improvements in organizational performance. It is, however,

imperative that approaches other than *OCB* be taken to enhance organizational performance.

CONCLUSION AND SUGGESTIONS

According to the afore-mentioned analyses and results, this chapter specifies the conclusions and contributions of the present study. The research limitations and suggestions for future research are mentioned in the last passages.

Table 4. Summary of results concerning the mediator variable (un-standardized).

Variables	Point of estimates (Est.)	Product of coefficients SE Z		Bootstrapping				MacKinnon PRODCLIN2 95%CI	
				Bias-corrected 95% CI		Percentile 95% C		Lower	Upper
				Lower	Upper	Lower	Upper		
Total effect									
X→Me	.92	.06	15.33	.78	1.00	.74	.98		
Indirect effect									
Me→Y	1.00	.09	11.11	.46	.95	.42	.93	.38	.97
Direct effect									
X→Y	.94	.08	11.75	.35	.82	.35	.81		

Table 5. Summary of results concerning the mediator variable (un-standardized).

Variables	Point of Estimates (Est.)	Product of Coefficients SE Z		Bootstrapping				MacKinnon PRODCLIN2 95%CI	
				Bias-Corrected 95% CI		Percentile 95% C		Lower	Upper
				Lower	Upper	Lower	Upper		
Total Effects									
D→Me	.87	.09	9.67	.73	.98	.61	.92		
Indirect Effects									
Me→Y	1.00	.08	11.11	.46	.95	.42	.93	.39	.96
Direct Effects									
D→Y	1.03	.08	12.88	.25	.88	.26	.92		

Conclusion

In summary, the present study verified topics of interest using a SEM-based survey of employees at a Taiwanese state-run company, including those holding key positions. The conclusions are detailed as follows:

The effects of employees' perception of organizational justice on organizational performance:

the research results proved H1 is substantiated: *the organizational performance of a Taiwanese state-run company is positively and significantly affected by its employees' perception of organizational justice*. That echoes the statements mentioned in this study's literature and proposed by Tang (2008) and Wei (2010).

The effects of employees' perception of organizational justice on OCB:

the research results proved H2 is substantiated: *the OCB of a Taiwanese state-run company is positively and significantly affected by the employees' perception of organizational justice*. That echoes the theoretical statements mentioned in this study's literature and proposed by Organ (1989),

Moorman (1991), Niehoff and Moorman (1991), Konovsky and Pugh (1994) and Wong et al. (2006).

The effects of OCB on organizational performance:

the research results proved H3 is substantiated: *employees' OCB has a significantly positive effect on the organizational performance of a Taiwanese state-run company*. That echoes the statements mentioned in this study's literature and proposed by Hsieh (2009), Wu (2010), Hsiao (2011) and Kuo (2012).

The effects of employees' work values on OCB:

the research results proved H4 is substantiated: *employees' work values exert a significantly positive effect on the OCB of a Taiwanese state-run company*. That echoes the theoretical statements mentioned in this study's literature and proposed by Chen (2011), Lin (2010) and Kao (2011).

The effects of employees' work values on organizational performance:

the research results proved H5 is substantiated: *employees' work values exert a significantly positive effect on a Taiwanese state-run*

company's organizational performance. That echoes the theoretical statements mentioned in this study's literature and proposed by Wu et al. (2007).

Contributions of the present study

This present study is based on a research model of *two causes, one effect and one mediator*, and the author conducted modeling in accordance with a literature review. Since the effects of the model's suitability were verified, this study is a CFA-based and innovative one addressing important topics with regard to business practices. It provides a reference for further research in relevant fields.

Results of this study provide a referential basis for executives at state-run companies worldwide when they make decisions about managerial strategies.

Limitations

This study completed each stage of the research process with limited resources and the greatest caution possible, despite the following limitations:

The simple random sampling method and questionnaires sent via mail both resulted in a relatively low rate of valid responses. The greatest limitation of this study therefore is the small sample size that might leave the population poorly represented.

In future study, we will break through this limitation by stratified random sampling instead.

RECOMMENDATIONS FOR FUTURE RESEARCH

Since the present study is focused solely on employees of a Taiwanese state-run company, including its key staff, future researchers seeking extensive data collection or innovations/breakthroughs may conduct comparative analyses in small, medium, and larger firms with different lines of business).

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