A study of the influence of organizational change on organizational performances of listed tourist hotels in Taiwan: Using organizational commitment as the mediating variable

Gao-Liang Wang

The purpose of this study is to explore the influence of organizational change on organizational performance of listed tourist hotels in Taiwan using organizational commitment as the mediating variable. By convenience sampling to select employees from Taiwan's listed tourist hotels, this study applied the method of structural equation modeling (SEM) to test the goodness-of-fit of the overall model, structural model and measurement model. This study focused on the path coefficients between “implicit variables” (also known as unobservable variables) of the structural model, and the Bayesian estimation was used to test the significance of the structural model’s direct effect, mediating effect and total effect. Findings from this study include: (1) organizational change does have a positively direct influence on organizational performance, but insignificantly; (2) the organizational change has a significantly positive influence on organizational commitment as well as on the organizational performance. Generally, organizational commitment does have a “fully” mediating effect.

Key words: Organizational change, organizational performance, organizational commitment.

INTRODUCTION

Given the growing popularity of tourism and the easing of government’s tourism policies, the Taiwan-based travel and sightseeing industries have been thriving. Thanks to tourist-hotel owners’ persistent investment and construction efforts, there is a sharp increase in the number of rooms in Taiwanese tourist hotels, which however leads to a fiercely competitive tourism market: higher operating costs and consequently a serious profit decrease. Therefore, in order to bolster profits, it is necessary that Taiwanese hotels expand the customer base by zealously enhancing their service quality while adopting important cost-reducing operating strategies such as lowering personnel costs.

The tourist hotel is not just a building that appears magnificent; it also should cultivate a special quality centered on humanity as people make the most valuable asset of any business (Yen, 1997). Tsaur and Wang (2001) believed that employees are one of a sightseeing firm’s major assets, and what affects a hotel’s operating performance the most is its employees’ ability to provide services that generate a “sense of value” advocated by customers. How hotel employees offer customers excellent-quality services is a vital part of a hotel’s survival; among all employees, whether or not those in the front line dealing with customers possess market-oriented working attitude and behavior will directly affect the quality of customer services, and consequently the hotel’s organizational performances.

However, a front-line employee’s degree of loyalty to the organization affects how he/she treats the customers. Employees who are faithful to the organization regard every matter related to the organization as their own business with complete dedication (Shen et al., 2010).

Therefore, this study tries to verify and understand the
influence of organizational change on Taiwan’s listed tourist hotels, using organizational commitment as a mediating variable. The specific purposes of this study are listed as follows:

1. To verify and understand whether the organizational change adopted by Taiwan’s listed tourist hotels have a positively and significantly direct influence on organizational performance.
2. To verify and understand whether the organizational changes adopted by Taiwan’s listed tourist hotels have a significantly positive influence on organizational commitment, and whether the organizational commitment affects organizational performance in a significantly positive manner. That is, whether or not the organizational commitment has a direct mediating effect if the previous-mentioned hypothesis (H1) is supported.
3. To offer suggestions for the management at Taiwan’s listed tourist hotels when planning management strategies.

LITERATURE REVIEW

Definition and classification of organizational changes

In an era of lifelong learning, individuals and organizations alike lose competitiveness as soon as they stop learning and growing. To seek sustainable survival amid the battle of changes and innovation, conducting a never-ending organizational change is the only way out. Drucker (2003) believed that “the most manifest difference between the previous and present societies is that working is the end of learning in the former and yet the beginning of learning in the latter” (Huang, 2009).

Hu (2007) defined organizational change by noting that an organization is an open organism that must transform, adjust and change in accordance with the internal and external environments. Internal adjustments are meant to improve the staff’s attitude and behavior while upgrading the organizational culture; and the external adjustments further highlight the organization’s competitive advantages so as to achieve the goals of steady growth and better performance. Such adjustments and strategies are referred to as organizational changes. Besides proposing a definition of organizational changes, Hu classified organizational changes into two categories, namely the proactive and reactive changes, depending on how actively a business initiates the transformation.

In a way similar to social change, three models of organizational changes have been proposed by Lewin (1951). His ideas of unfreezing, transitioning and refreezing indicate that, in order to promote (organizational) changes in an organization operating under a long-existing mode notorious for unbreakable rigidity, the first thing is to unfreeze, or gradually softening and resolving the deep-rooted concepts and using them as the basis for initiating new approaches, which is followed by a transition. Once the organizational members unanimously agree with such a new operating mode, further efforts are required to reinforce their concepts (concerning the new mode) so they can get used to how it is operated. That way, the new mode will form a part of organizational norms, just as what refreezing means. The transforming process proposed by Lewin to a considerable extent complies with the change in human behavior, which makes much sense but is difficult to carry out: It takes both patience and earnestness to achieve the expected purpose of change.

Lippit et al. (1958) extended Lewin’s Change Model to contain five phases: (1) develop the demand for change; (2) confirm the relationship of change; (3) strictly implement the measures of change; (4) maintain the stability of change; (5) end the aid relationship.

Additionally, Jan (2006) mentioned the potential reactions of staff during the promotion of organizational changes due to resistance, namely disobedience, indifference, negligence, resignation, and so on. He also proposed the reasons that cause such resistance, including the demand for security, habits and misunderstandings. As these signs of resistance form a huge obstacle to change, Jan noted it is necessary that the management devise measures to reduce obstacles to change. He also suggested such approaches as encouraging employees’ participation and expressing their opinions, bolstering the management-employee communications, gaining recognition and support from employees, enhancing personnel training courses, offering material and mental incentives.

Moreover, Hsu (2010) believed an organization’s pursuit of change and innovation is a process that includes strategies, structures, management systems, skills, organizational culture, production methods, technical innovation, as well as approaches to increasing the organizational performance. Hence, an organizational change must include such elements as development, transformation, innovation, turnaround and renewal.

Lee (2010) pointed out that the key to a school’s successful organizational change lies in the alertness toward crises, the ability to build visions, to achieve hierarchical authorization, to win approval and support, and to implement a change with persistence and in-depth cultivation (that is, to reach diversity and innovation of an organization’s open system).

Leavitt (1962) mentioned that an organization consists of four major interactive dimensions, namely task, people, technology and structure, which are briefly described as follows:

1. Task-oriented change: Literally, the task means major jobs in the organization such as production, manufacturing and services. The task-oriented changes stress the importance of external control and focus on
what the organization should do, as well as the products or services they should provide.

(2) Structural change: The structure represents the systems of communication, responsibility control, and work procedures. Changes of this type stress the importance of internal control and focus on the authority system, organizational hierarchy and designation of the organization's departments.

(3) People-oriented change: Changes of this type include those concerning the size, attitude or skills of personnel. They stress the importance of internal flexibility and focus on interpersonal relationship besides the values/attitude of workers inside the organization.

(4) Technological change: It refers to the process-aiding tools, just like the work measurement mechanism or computer. Changes of this type stress the importance of external flexibility and focus on organizational skills of production systems, management procedures and information technologies.

These four dimensions possess highly interdependence that a change in any one of them will certainly influence the other three. For example, a new technology introduced to the organization may impel the transformation of existing structure (such as the communication mechanism and decision-making model), task-related changes (in terms of production, manufacturing, services, and so on), staff-related changes (such as changes in the number, skills and job descriptions of employees). Therefore, when it comes to organizational changes, Leavitt (1962) held the opinion that transformation can be done through at least one of those dimensions.

In regard to the conceptual definition of organizational change, this study sums up the opinions from all scholars mentioned above and argues that, for survival and sustainable development, it is necessary for a school organization to make transformations, adjustments and changes in accordance with the internal and external environments. The internal adjustments are meant to improve the teachers' attitudes and behavior while upgrading the organizational culture; the external adjustments further highlight an organization's competitive advantages so as to achieve the goals of steady growth and enhanced performances. Hence, the process of an organization's attempt to seek changes and innovation is called organizational change, which includes elements such as development, transformation, innovation, turnaround and renewal.

In the considerable amount of literature reviewed, most types of organizational changes mention the four concepts of people, technology, task and structure, which match the variables of organizational change proposed by Leavitt (1962). Such an organizational change model has been extensively adopted until now. Therefore, this study use Leavitt's classifications regarding the organizational change and use his definition as the operational definition in our case study.

Organizational commitment

The concept of organizational commitment is derived from Whyte's book (1965) "The Organization Man", which describes the organization man as one that "not only works for the organization, but also belongs to it" (Tsai, 2001). Moreover, organizational commitment is one of the factors to understand employees' work behavior inside the organization.

Organizational commitment can be considered the relative intensity of an individual's recognition of and dedication to the organizations' goals and missions (Porter et al., 1974). It improves the solidarity among employees and organization and also creates a specific sense of pride for those belong to the organization (Jaworski and Kohli, 1993). Mowday et al. (1982) thought an excellent individual can associate with the organization by organizational commitment, resulting in satisfying interactive effects for themselves and the organization as well.

Price and Mueller (1986) deemed organizational commitment as the loyalty and a form of emotional attachment toward the organization. Considering the relevant costs occurring by leaving the organization, this definition of organizational commitment indicates an obligation to stay in the organization (Allen and Meyer, 1990). As for the definition of organizational commitment, it varies among scholars depending on their theories and research approaches.

Mowday et al. (1982) in a questionnaire-based survey of state-run enterprises went on to name these three inclinations as three dimensions, namely the value commitment, retention commitment and effort commitment.

In the conclusion of their research on employees at psychologist's training centers, Porter et al. (1974) deemed the organizational commitment as the degree of an individual's recognition of and dedication to a specific organization. They argued that an organization's member generally shows three inclinations regarding the organization: (1) the strong belief and acceptance of organizational goals and values; (2) the longing for being part of the organization continuously, and (3) the willingness to work for organizational interests.

According to Meyer et al. (1991), the basis on which organizational commitment is defined can be explained in three aspects: (1) the affective attachment generated by psychological factors, such as emotions; (2) the affective attachment generated by perceived cost, and (3) the affective attachment generated by obligations and ethic factors. Besides, Mayer and Allen (1991) named these three aspects, respectively, as: (1) affective commitment; (2) continuance commitment and (3) normative commitment.
Robbins (2001) considered the organizational commitment one of working attitudes, which is the degree of an employee’s recognition of a specific organization and its goals, as well as how much he/she wishes to maintain the relationship with fellow organizational members.

Wu (1993) underscored the importance of how much an individual identifies with his/her organization and shows commitment/loyalty toward it. The higher degree of commitment, the more eagerly an individual considers him/herself an integral part of the organization.

Hsieh (1999) argued that the organizational commitment is the degree of subjective feelings or emotional responses revealed by an individual member in the organization with regard to various situations. According to Chen and Yu (2000), the organizational commitment is an attitude held by an organizational member who approves the organization’s objectives, feels proud of being part of the organization, behaves in loyalty to the organization, and expresses willingness to work hard for the organizational goals.

In summary, the definitions of organizational commitment vary depending on the research approaches, objects and purposes. And yet, the scholars mentioned previously, all share the opinion that an individual’s identifying with and dedication to an organization is an important concept behind the organizational commitment. Many Taiwanese studies were conducted using the retention commitment, value commitment and effort commitment (Mowday et al., 1982) as major dimensions (Mowday et al., 1982) which have been proved highly valid. Hence, this study adopts the definition by Mowday et al., (1982) to deem the conceptual definition of organizational commitment as “the degree of members’ recognition of organizational goals and values, and how much they are willing to work extraordinarily hard to help the organization accomplish its goals” (Hsieh, 2006).

This study adopts the classification and definition presented by Mowday et al. (1982), based on the dimensions of (1) retention commitment; (2) value commitment and (3) effort commitment. The operational definitions of these dimensions are: (1) value commitment: the organizational members’ faith in and genuine acceptance of the organizational goals and values, (2) effort commitment: the organizational members’ willingness to pursue benefits and make efforts for the organization, and (3) retention commitment: an individual’s strong eagerness to maintain their identity as the organizational member.

**Organization performance**

The word performance originally indicates how well the results of an effort are shown and contains two meanings: efficiency and effectiveness. While efficiency is measures by the ratio between output and input, effectiveness is the degree of goal achievement of an organization. For organizational management, its pursuits are combinations of efficiency with effectiveness. According to the motivation theory of management science, it is interpreted as “a job that an employee can do” (Cheng et al., 1997). The science of organizational behavior, nevertheless, refers to performance as “an integrated success consisting of efficiency, effectiveness and efficacy” (Hsieh, 2006).

Evans (1996) stressed that organizational performance not only is used to measure the level of a business’ achievement of strategic goals, but also serves as an index of the business’ overall competitiveness. When conducted appropriately, the assessments of organizational performance enable the management to understand the current situation facing the organization. The assessment indices commonly used include an organization’s revenue, production capacity and profitability. Hsu (2010) put efficiency and effectiveness together and named the combination as organizational performance. Drucker (1966) gave a good interpretation of efficiency and effectiveness: efficiency is doing things in the right way, and effectiveness doing the right things. Neither efficiency nor effectiveness should be neglected, although that does not mean they have equal significance. We surely wish to enhance efficiency and effectiveness simultaneously. But if that is unlikely, we must prioritize effectiveness and manage to boost the efficiency later.

Ling and Ling (2010) deemed financial performance as the output in terms of financial accounting that can be measured by indices regarding growth and profitability. For example, a company with satisfying financial performance is expected to excel the average company in the same sector regarding both the earnings per share (EPS) and return on sales (ROS).

According to Song et al. (2005), the merit of substituting the objective financial performance with a subjective one lies in the fact that the subjective performance is not only helpful in cross-industry and cross-company comparisons, but also highly related to the objective one. As a result, the financial information collected in this study is mainly based on subjective performance, with the organizational performance measured using EPS of Taiwan’s listed tourist hotels, courtesy of the Taiwan Economic Journal (TEJ) database, as the index.

**Relationship between organizational change and organizational commitment**

Ho (1995) found in his study the important factors that affect the organizational commitment: the communication and planning in the process of change implementation, the evaluation of change, and the post-change career development measures taken.

Ting (2000) declared that organizational commitment is
related to the evaluation of change-related perceptions (that is, competitiveness and efficiency), and also to the perceptions of employee rights, job contents, and career development.

According to Richard (2005), an effective change is founded upon a self-reinforcing cycle that urges commitment, coordination and staff abilities. The cycle consists of various steps: (1) jointly locate the problems and come up with solutions to stimulate vitality and commitment; (2) develop a consensus and understand how reconstruction/management should be implemented in order to boost competitiveness; (3) confirm the leadership; (4) concentrate on the results instead of actions; (5) introduce changes from the outside in, not in a top-down manner; (6) institutionalize success through formal policies, systems and structures, and (7) monitor the issues arising in the change process and adjust the strategy accordingly.

Su (2006) indicated that the perception of change is an important index that measures organizations which includes such elements as job rights, role perception, demand for achievement, and regulations and criteria. He also believed the planning and implementation of organizational changes, the organization members’ perception of change and personal characteristics are the preceding influential factors of organizational commitment.

Hence, the following hypotheses can be inferred from the foregoing description:

**Hypothesis 1 (H1):** Organizational change has a significant and positive influence on organizational commitment.

**Relationship between organizational commitment and organizational performance**

It was pointed out in Bhuian’s study (1996) about how commitment influences performance that the commitment toward organization and team is positively related to “the willingness to help”. Hallowell et al. (1996) thought the quality of internal services has a considerable influence on the performance of external services, showing that employee’s commitment toward the organization and marketing within the organization are both important influential factors of organizational performance.

During his exploration of the relationship between organizational commitment and managing performance, Benkhoff (1997) discovered that organizational commitment has a significant influence on the financial performance of a bank’s branch office although the results depend on how the organizational commitment and organizational performance are measured. Tansuhaj et al. (1991) noted that internal marketing of the organization can encourage employees to assume a positive attitude toward organizational commitment, job involvement, work motivation and job satisfaction. Rashid et al (2003) believed the type of corporate culture and organizational commitment will influence the financial performance (for example, the return on assets, return on investment and the current ratio). Ferris and Aranya (1983) even propose organizational commitment as an effective index to measure organizational performances.

From the previous description, Hypothesis 2 (H2) can be inferred: the organizational commitment has a significant and positive influence on organizational performance.

**Relationship between organizational change and organizational performance**

For the past decade, Taiwan’s tourist hotels have adopted a series of organizational change mechanisms (that is, downsizing, encouraging senior employees to retire early, and organizational flattening) to boost profitability. Whether tourist hotel employees working under the double pressure to meet sales target and downsizing affect the organizational performance becomes an issue worth discussing.

Wu (1984) proposed various practical interfering techniques to urge an organization to implement necessary changes in order to enhance the effectiveness at work for both the individuals and the groups, and also to lift up the organization’s overall effectiveness. According to Wu (1993), the planned transformation of an organization is a process of systematic efforts by the promoter of change, in an attempt to move the organization in the determined direction. And yet, the implemented change, whatever it may be, is expected to eventually improve the work efficiency as well as organizational effectiveness.

Hence, the following hypotheses can be inferred from the previous statement:

**Hypothesis 3 (H3):** Organizational change has a significant and positive influence on organizational performance.

Based on the research purposes and literature review described previously, the research framework can be obtained, as shown in Figure 1.

**RESEARCH METHODOLOGY**

**Sampling subjects and methods**

This study surveyed employees at Taiwan-based listed tourist hotels using convenience sampling method. 50 copies of expert questionnaire were given away in a pilot-test. A post-test was conducted after modifying the questionnaire in accordance with expert suggestions. 230 copies of the official questionnaire were handed out, and 187 valid copies were returned with a return rate of 81.3%.

**Designing the questionnaire**

The questionnaire of this study was designed on the basis of
multi-dimension measurement. It uses a 7-point Likert scale to measure each answer, with 7 being strongly agree and 1 being strongly disagree. A higher point represents a higher degree of agreement, and vice versa.

The questionnaire of organizational change was designed by improving on a combination of the questionnaires presented by Hu (2007), Lee (2011) and Jones (2001). It contains four observable variables, namely the task-oriented change, structural change, people-oriented change and technological change. Based on multi-dimension measurement, the questionnaire consists of four items per variable and total 16 items.

The questionnaire of organizational commitment in this study was designed by improving on the Organizational Commitment scale proposed by Tsai and Shiue (2007). It has three variables (that is, retention commitment, value commitment and effort commitment) and four items per variable, or total 12 items.

The questionnaire of organizational performance in this study was designed by improving on the questionnaire proposed by Chen (2001) using the single measurement. It contains 6 questionnaire items in total.

**Questionnaire data and measurement system**

This study applied the structural equation modeling (SEM) to conduct confirmatory factor analysis (CFA) to verify the research framework proposed. It divided the questionnaire into three latent variables (that is, organizational change, organizational commitment and organizational performance), each containing observable/explicit variables, as stated in the foregoing. The survey was conducted using these observable/explicit variables, with several categorized items under each explicit variable. After processing data collected in the survey, a file was created for the primary data. Although the questionnaire design was based on multi-dimension measurement, the research framework’s measurement model was constructed on the bases of “odd-even measurement” and “single measurement”, so that the data processing using computer software will go as expected (Chen, 2010). The numbers of questionnaire items under implicit and explicit variables in this study, along with their reference resources, are shown in Table 1.

**DATA ANALYSIS AND RESULTS**

**Linear structural model**

The CFA is an analytical approach opposite to the exploratory factor analysis (EFA). This study conducted a CFA of three unobservable/implicit variables (that is, organizational change, organizational commitment and organizational performance). Consisting of the structural model and measurement model, the SEM provides an effective solution to the cause-effect relation between implicit/latent variables. The models verified in this study has three parts: (1) verifying the goodness-of-fit of measurement model; (2) verifying the goodness-of-fit of structural model and (3) verifying the models’ overall goodness-of-fit to make sure they conform to the goodness-of-fit indices. That is, the overall goodness-of-fit of SEM was judged by using related goodness-of-fit indices (Diamantopoulos and Siguaw, 2000).

**Analyzing the goodness-of-fit of measurement model**

The factor loading of unobservable or latent/implicit variables and observable or manifest/explicit variables mainly measures the intensity of linear relationship of explicit and implicit variables. A factor loading close to 1 indicates the observable variable is relatively capable of measuring the unobservable one. In this study, all observable variables’ factor loading are between 0.7 and
Table 1. Number of questionnaire items for implicit variables and observable variables.

<table>
<thead>
<tr>
<th>Implicit variables</th>
<th>Observable variables</th>
<th>Number of items</th>
<th>References for questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational change</td>
<td>Task-oriented change</td>
<td>4</td>
<td>Hu (2007), Lee (2011) and</td>
</tr>
<tr>
<td></td>
<td>Structural change</td>
<td>4</td>
<td>Jones (2001)</td>
</tr>
<tr>
<td></td>
<td>People-oriented change</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technological change</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>Retention commitment</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Value commitment</td>
<td>4</td>
<td>Tsai and Shiue (2007)</td>
</tr>
<tr>
<td></td>
<td>Effort commitment</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Organization performance</td>
<td>EPS</td>
<td>6</td>
<td>Chen (2001)</td>
</tr>
</tbody>
</table>

Table 2. Judgment indicators of measurement system in the model.

<table>
<thead>
<tr>
<th>(Implicit/unobservable variables)</th>
<th>(Explicit/observable variables)</th>
<th>Factor loading</th>
<th>Variance extracted (VE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational change (X)</td>
<td>X1</td>
<td>0.73</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>0.76</td>
<td>0.57</td>
</tr>
<tr>
<td>Organizational commitment (ME)</td>
<td>E1</td>
<td>0.74</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>E2</td>
<td>0.76</td>
<td>0.58</td>
</tr>
<tr>
<td>Organizational performance (Y)</td>
<td>Y</td>
<td>0.77</td>
<td>0.58</td>
</tr>
</tbody>
</table>

0.8, hence satisfying reliability. Consequently, all “observable variables” (that is, the manifest variables) in the model’s “measurement system” are capable of appropriately measuring the “unobservable variables” (that is, the latent variables). Moreover, the average variance extracted (AVE) is used to calculate the explanatory power of variance between unobservable/latent variables versus observable/manifest variables; the higher the VE value, the greater reliability and convergent validity of the latent/unobservable variable. Usually, the VE value must be larger than 0.5 to indicate that the explanatory variance is larger than measurement error (Fornell and Larcker, 1981). In this study, all AVEs are larger than 0.5, hence the explicit variables have excellent reliability and convergent validity (Table 2 and Figure 2).

Analyzing the goodness-of-fit of structural model

Path analysis results of structural model

Given that the measurement model passed the goodness-of-fit test, Table 3 shows such results of the parameter estimates, standard error (S.E) and Critical ratio (C.R) between implicit variables.

Coefficient of determination

The degree of how well an independent implicit variable explains a dependent implicit variable is the $R^2$ value, or squared multiple correlation (SMC). Therefore, the $R^2$ value shown in Table 4 indicates that the implicit independent variables adequately explain the implicit dependent variables.

The goodness-of-fit of the overall model

The purpose of adopting SEM as this study’s research model is to explore the relationship between unobservable variables within the structural model, to examine whether the measurement model fits well or not, and also to measure the overall goodness-of-fit for this study using such indices as $\chi^2$, d.f., GFI, AGFI, NFI, CFI, RMR, RMSEA. In most cases, $\chi^2$/d.f.<5; 1>GFI>0.9; 1>NFI>0.9; 1>CFI>0.9; RMR<0.05; and RMSEA<0.05 mean good fit (Bagozzi and Yi, 1988). The overall goodness-of-fit of the model used in this study is
Figure 2. Standardized results of SEM analysis.

Table 3. Path analysis results of structural model.

<table>
<thead>
<tr>
<th>Path coefficients between implicit variables</th>
<th>Estimate</th>
<th>S.E</th>
<th>C.R</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational change (X) → Organizational effectiveness (Y)</td>
<td>0.142</td>
<td>0.221</td>
<td>1.095</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Organizational change (X) → Organizational commitment (ME)</td>
<td>0.433</td>
<td>0.033</td>
<td>13.121</td>
<td>***</td>
<td>a1</td>
</tr>
<tr>
<td>Organizational commitment (ME) → Organizational effectiveness (Y)</td>
<td>0.537</td>
<td>0.031</td>
<td>17.322</td>
<td>***</td>
<td>b1</td>
</tr>
</tbody>
</table>

* indicates P<0.05, ** P<0.01, and *** P<0.001.

Table 4. Path coefficient of determination.

<table>
<thead>
<tr>
<th>Coefficients of determination</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational change (X) → Organizational effectiveness (Y)</td>
<td>0.74</td>
</tr>
<tr>
<td>Organizational change (X) → Organizational commitment (ME)</td>
<td>0.73</td>
</tr>
<tr>
<td>Organizational commitment (ME) → Organizational effectiveness (Y)</td>
<td>0.78</td>
</tr>
</tbody>
</table>

satisfying, given the fact that χ²/d.f. <5 and GFI, AGFI, NFI are all larger than 0.90 and the RMR value smaller than 0.05, as shown as in Table 5.

**Standardized results of SEM analysis**

Figure 2 indicates the standardized computed result of the model’s overall framework.

**Analytical testing of path effect for the structural model**

For the path coefficients between “implicit variables” (or unobservable variables) in the structural model, this study applied Bayesian Estimation to conduct an analytical test of the path effect of the structural model, using organizational commitment (ME) as the mediating factor, as shown in Table 6.

1. Since the path coefficient of organization change (X) versus organizational commitment (ME) is a₁ = 2.685, with a 95% confidence interval (1.551, 3.819), this means a significant influence between the two variables.

2. Since the path coefficient of organizational commitment (ME) versus organizational performance (Y) is b₁ = 4.133, with a 95% confidence interval (3.341, 4.952), this means a significant influence between the two variables.
Table 5. Overall goodness-of-fit of the model.

<table>
<thead>
<tr>
<th>Determination index</th>
<th>$\chi^2$</th>
<th>DF</th>
<th>GFI</th>
<th>NFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>RMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fit value</td>
<td>5.970</td>
<td>6</td>
<td>0.903</td>
<td>0.935</td>
<td>0.916</td>
<td>0.921</td>
<td>0.033</td>
<td>0.036</td>
</tr>
</tbody>
</table>

Table 6. Bayesian estimation.

<table>
<thead>
<tr>
<th>Regression weights</th>
<th>Mean</th>
<th>S.D.</th>
<th>95% lower bound</th>
<th>95% upper bound</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational change (X) → Organizational commitment (ME)</td>
<td>2.685</td>
<td>0.378</td>
<td>1.551</td>
<td>3.819</td>
<td>a1</td>
</tr>
<tr>
<td>Organizational commitment (ME) → Organizational performance (Y)</td>
<td>4.133</td>
<td>0.264</td>
<td>3.341</td>
<td>4.925</td>
<td>b1</td>
</tr>
<tr>
<td>Organizational change (X) → Organizational performance (Y)</td>
<td>3.638</td>
<td>1.345</td>
<td>-0.397</td>
<td>7.673</td>
<td>c</td>
</tr>
</tbody>
</table>

Table 7. Custom estimates.

<table>
<thead>
<tr>
<th>Numeric estimates</th>
<th>Mean</th>
<th>S.D.</th>
<th>95% lower bound</th>
<th>95% upper bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct effect (a1)</td>
<td>2.695</td>
<td>0.378</td>
<td>1.551</td>
<td>3.819</td>
</tr>
<tr>
<td>Direct effect (b1)</td>
<td>4.133</td>
<td>0.264</td>
<td>3.341</td>
<td>4.925</td>
</tr>
<tr>
<td>Direct effect (c)</td>
<td>3.638</td>
<td>1.345</td>
<td>-0.397</td>
<td>7.673</td>
</tr>
<tr>
<td>Indirect effect (a1*b1)</td>
<td>10.869</td>
<td>1.683</td>
<td>5.820</td>
<td>15.918</td>
</tr>
<tr>
<td>Total effect (c+a1*b1)</td>
<td>14.539</td>
<td>1.997</td>
<td>8.548</td>
<td>20.530</td>
</tr>
<tr>
<td>The ratio of indirect effect to total effect</td>
<td>0.748</td>
<td>0.127</td>
<td>0.367</td>
<td>1.129</td>
</tr>
</tbody>
</table>

3. Since the path coefficient of organizational change (X) versus organizational performance (Y) is $c = 3.638$, with a 95% confidence interval (-0.397, 7.673), this means a non-significant but positive influence between the two variables.

We can infer from Table 7 that:

1. The estimate of indirect effect (a1*b1) is 10.869, with a 95% confidence interval (5.820, 15.918), indicating a significant indirect effect which accounts for an estimated 74.8% of the total effect.
2. Due to the significant indirect effect and the positive but not significant direct effect, the “organizational commitment” is fully mediating the influence of “organizational change” on “organizational performance”.

The test results obtained from the analysis previously are:

1. The organizational change has a positively but insignificantly direct effect on organizational performance, with a standardized path coefficient 0.142 that partially supported H$_1$ (Hypothesis Partially supported).
2. The organizational change makes a significantly direct influence on organizational commitment, which in turn shows a significantly positive influence on organizational performance. In other word, organizational commitment will have a “fully” mediating effect when H$_1$ is partially

supported (Hypothesis partially supported).

CONCLUSIONS AND SUGGESTIONS

The following conclusions are derived from the afore-mentioned data analyses and results:

1. As for the SEM model confirmation, the SEM established in this study has a satisfying goodness-of-fit in terms of the measurement model, structural model and the overall structure, hence a good model fitting.
2. As for the significance of business practices for hotels in Taiwan:

a). Concerning the relationship between organizational change and organizational performance, the organizational changes implemented by listed Taiwan-based tourist hotels have a positive but insignificant influence on organizational performance.

b). Concerning the relationship between organizational change and organizational commitment, the organizational changes implemented by listed Taiwan-based tourist hotels have a positive and significant direct influence on organizational commitment.

c). Concerning the relationship between organizational commitment and organizational performance, the organizational commitment toward listed Taiwan-based tourist hotels have a positive and significant direct
influence on organizational performance.

In summary, the organizational changes implemented by listed Taiwan-based tourist hotels have a positive yet insignificant influence on organizational performance, and its organizational commitment has a "fully" mediating effect. The finding matches the argument of Baron and Kenny (1986) that "the fully mediating effect means that, when a mediating variable is added, the relationship between independent and dependent variables becomes insignificant".

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