The Effect of Organizational Citizenship Behavior on Proactive Environmental Strategies in Medicine Emergency Students

Laila Tavazo,
Emergency medicine specialist in Imam Sajjad Hospital

Nina Taherparvar
Msc in Business management, Department of management, Allameh tabataba’i University, Tehran, Iran
*Corresponding author email: Nina.taherparvar@gmail.com

Amir Noyani
The resident of management research center, Iran University, Tehran, Iran

Maryam Paeezi
Fellowship of clinical toxicology, Department of medical science, Shahid Beheshti University, Tehran, Iran

Abstract

Organizational citizenship behavior (OCB) and Proactive Environmental strategy are voluntary, organizationally desirable action that are not part of the employee’s formal job requirements but they are essential for organizations to remain competitive. This article investigate the effect of organizational citizenship behavior on proactive environmental strategies. This research is an applied research and data collection is based on a descriptive and survey research. The structural equations have been used to analysis the relation between variables. Statistical population of this research has been chosen from the emergency medicine students in Iran University. The sample selected with Cochran formula is about 79 persons. Data was analyzed by SPSS software. The results of this research are demonstrating that the positive and significant relationship exists between the organizational citizenship behavior and proactive environmental strategy and hospitals can increase proactive practices through organizational citizenship behavior. Therefore, hospital management should develop some practices(such as promotion, training, recognition, etc.) that can promote organizational citizenship behavior and proactive environmental strategy.

Keywords: Organizational Citizenship Behavior, Proactive Environmental Strategy, emergency medicine.
Introduction:

In health care setting, some of the OCB\textsuperscript{1} dimensions are essentials to provide quality and differentiate services that promote the corporate image of a hospital. As we know, healthcare organizations are having difficulty responding to the growing pressure from stakeholders to proactively address their responsibility to deliver high-quality service without harming the environment. Organizational citizenship behavior is a concept which organizations require to survive in today’s challenging and competitive environment. If employees work in their own organization as good organizational citizens, they can contribute to the organization’s overall performance in competition, and change it into an ambience full of trust and motivation (Ghodratollah et al., 2011). On the other hand, environmental performance, is defined as the reduction of environmental impact by reducing material use, waste, and energy use. Proactive environmental strategies are often associated with higher environmental performance of the firms (Vachon and Klassen, 2008). Increasingly, many firms are shifting to proactive environmental strategies; partly driven by a search for competitive advantage. Recently, the social responsibility of healthcare managers has broadened to include the need to protect the environment (World Health organization and Health Care Without Harm 2009). This responsibility has emerged as an urgent issue because healthcare organizations have been progressively acknowledge as significant contributors to environmental damage (Mohrman and Shani, 2012).

In recent studies, The concept of organizational citizenship behavior and proactive environmental strategies in the health care institutions were paid less attention. Therefore, this study aimed to explore the relation between Organizational Citizenship Behavior and Proactive Environmental Strategies.

Organizational citizenship behavior

In 1983, the organizational citizenship behavior is defined by Oregon as the behavior that is with individual desire and should not be praised by rewards directly or explicitly be founded through the organizational-formal reward system (Bateman and Organ, 1983). However, it causes to promote the organizational effective performance (Schneider et al., 2005). In a definition of Oregon, he stated that, OCB include those behavior that the staff of organization will improve their performance regardless of their personal productivity goals (Castro et al, 2004).

Organizational citizenship behavior is the individual voluntary behavior which discretionary not directly or explicitly recognized by the formal reward system of the organization (Organ et al, 2005). This type of behavior is rather a matter of personal choice. As it is not specified by the duties prescribed in the job description, this type of behavior is it not required by the organization and as a result, it cannot be awarded, but if often brings informal recognition to the employee-peers’ appreciation, manager’s or organizational partners (in our case doctors), and for the organization efficiency and success (Magdalena, 2014).

Podsakoff et. Al (2000) analyze in a comprehensive study antecedents of OCB from the existing empirical research and divide them in four large categories: a. individual

\textsuperscript{1} Organizational Citizenship Behavior
characteristics: employee attitudes (satisfaction, fairness, organizational commitment, trust in leader), dispositional variables (conscientiousness, agreeableness, positive and negative affectivity), employee role perception (role ambiguity, role conflict) and demographic variables (tenure, gender), employee abilities and individual differences (ability/experience/training knowledge, professional orientation, need for independence, indifference to rewards); b. task characteristics: tasks feedback, task routinization and intrinsically satisfying task; c. organizational characteristics: organizational formalization, organizational inflexibility, advisory / staff support, cohesive group, rewards outside the leader’s control, spatial distance from leader, perceived organizational support; d. leadership behavior. “core” transformational leadership, articulating a vision, providing an appropriate model, fostering the acceptance of group goals, high performance expectations, intellectual stimulation, contingent reward behavior, contingent punishment behavior, leader role clarification, leader specification of procedures, supportive leader behaviors and leader-member exchange (Magdalena, 2014).

Podskoff Studies indicated that approximately about 30 types of these behaviors were determined. They categorized types of citizenship behavior into seven common themes or dimensions: (1) Helping Behavior, (2) Sportsmanship, (3) Organizational Loyalty, (4) Organizational Compliance, (5) Individual Initiative, (6) Civic Virtue, and (7) Self Development (2). According to Podsakoff, MacKenzie, Paine, and Bachrach (2000), organizational citizenship behavior provides a means of managing the interdependencies among members of a work unit, which increases the collective outcomes achieved; reduces the need for an organization to devote scarce resources to simple maintenance functions, which frees to resources for productivity; and improves the ability of others to perform their jobs by freeing up time for more efficient planning, scheduling, problem solving, and so on (Demir, 2015).

Proactive environmental strategy

Proactive environmental practices are intangible managerial innovations and routines that require organizational commitments towards improving the natural environment and which are not required by low (Hart, 2005). Examples of these practices include implementing environmental policies (Henriques and Sadorsky, 1996), utilizing internal assessment tools such as bench marketing and accounting procedures (Nash and Ehrenfeld, 1997), establishing environmental performance goals, publicly disclosing environmental performance information (Hart, 2005), performing internal and external environmental audits, training employees in ways to improve the environment, and linking employee compensation to environmental performance (Welford, 1998). By implementing these practices, firms can identify how their production activities interact with the environment and how they can prevent natural-resource degradation (Rondinelli and Berry, 2000 10).

Environmental performance, is defined as the reduction of environmental impact by reducing material use, waste, and energy use. Proactive environmental strategies are often associated with higher environmental performance of the firms (Vachon and Klassen, 2008). Increasingly, many firms are shifting to proactive environmental strategies environmental management; partly driven by a search for competitive advantage. Russo and Fouts (1997) argue that proactive environmental management relies on strategic resources and delivers efficiency and competitive advantage to the firm. Proactive environmental strategy, as the set of environmental objectives, plans and procedures of a firm, which go beyond basic
compliance to lows. Firms adopting proactive environmental strategies anticipate new environmental issues, are motivated by new opportunities, move ahead of public concern, implement voluntary environmental issues and integrate those issues across functions (Gonzalez-Benito, 2008 11). Reactive environmental strategies, on the other hand, are defined as short-term compliance strategies which do not require the firm to develop expertise or skills in managing new environmental technologies or process (Hart, 1995). Among the major environmental concern of a firm with a reactive environmental strategy is compliance with regulations (Lee and Rhee, 2007).

Sharma and Vredenburg (1998) consider that a firm’s environmental strategy is proactive if it exhibits “a consistent pattern of environmental practices, across all dimensions relevant to their range of activities, not required to be undertaken in fulfillment of environmental regulations or in response to isomorphic pressures within the industry as standard business practices”. (Clarkson, 2011).

Past research on the adoption of PESs converged on two main results. One, many studies confirmed that stakeholder pressure is one of the major triggers for an organization’s adopting deliberate, non-mandated environmental strategies (e.g., Darnall et al., 2010). Two, a growing body of evidence has pointed out that unfavorable organizational features (e.g., a modest commitment from employees) and/or external contingencies (e.g., the ambiguity or complexity of legislation) limit an organization’s environmental proactively (e.g., Murillo-Luna et al, 2011).

Organizational citizenship behavior in Health care setting

Nowadays, Health care institutions face similar competition challenges like other service oriented institutions like banks, telecommunication, education, insurance, etc., in areas of customer demanding for high quality services at competitive prices and delivered with courtesy and conscientiousness. Health care is now patient-centered, where emphases are no customer-oriented marketing (Chao-Chan, 2011). Hence, the care service market favors the buyer, rather than the seller (Lee, Chen, Chen and Chen, 2010). With the growing competition and increasingly complex business environment there is reduction in the ability to understand and anticipate the environmental requirements of organizations to work, because the outstanding performance is not due to the common efforts of the staff, therefore, organizations need employees with a desire to move beyond formal job expectations (Morrison, 1994 as cited in Sahafi, et al., 2013). This concept has not find proper place in medical centers (Sharifi, et al, 2013) despite the positive influence on hospital brand image. The peculiarity and sensitivity of the health care delivery has increased the requirements of OCB. Hospitals need to train and encourage their employees to discharge their duties professionally and put extra efforts (OCB) where required. Citizenship behavior is most required and more important in the hospital because patients need special care and positive behaviors of medical personnel (doctors, nurses, pharmacists, etc) in handling their cases. OCB has an important role in strengthening morale and betterment of patients (Mardani-Hamole and Heydari, 2009). Also, researchers argue that citizenship behaviors facilitate access to hospital goals, and improve its performance (Chu et al., 2008). Therefore OCB will increase service efficiency, patient satisfaction and patronage, enhancing hospital corporate image as well as result to achievement of organizational performance (Kolade, 2014).
In health care setting, some of the OCB dimensions are essentials to provide quality and differentiate services that promote the corporate image of a hospital. Altruism is a kind of discretionary behavior tailored towards helping and motivating other employees in discharging their duties efficiently and tackles the works related problems. This is highly required in hospitals because medical personnel must work as a team; interact with one another to achieve delivery of quality service. Conscientiousness is discretionary behavior that helps medical staff to obey the rules of their professions, punctuality at work, attend to patient on timely and reducing waiting time. Sportmanship is a dimension that promotes willingness to tolerate less than expected situation without complaining and finding faults. For medical staff, this spirit enables the tolerant different patient and coworker behaviors. Courtesy indicates employee’s respectful behaviors that avoid creating work-related problems with others, for example, an employee consults others responsible participation in organizational related activities with good interest and commitment. For example, doctors should coordinate their duties with hospital programs or doing things that are not required in the duties, but can enhance the hospital corporate image(Kolade, 2014).

The Background of Research

Some of the main studies on Organizational citizenship behavior and proactive environmental training can be found in Table 1.

Table 1: Systematization of some of the main studies on environmental training

<table>
<thead>
<tr>
<th>study</th>
<th>Brief summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolade et al.(2014)</td>
<td>This study examine the relationship between organizational citizenship behavior, hospital corporate image and performance. The findings reveal that hospitals can increase performance through OCB and positive corporate image.</td>
</tr>
<tr>
<td>Darnall et al.(2010)</td>
<td>This paper contributes to the development of stakeholder model and applying it to a firm’s adoption of proactive environmental practices. The empirical results show that smaller firms are more responsive to value-chain, internal, and regulatory stakeholder pressures.</td>
</tr>
<tr>
<td>Gras—Gil et al. (2015)</td>
<td>This article investigates the relationship between corporate social responsibility and earning management. The results that corporate social responsibility practices may be an organizational device that leads to more effective use of resources, which then has a negative impact on earning management practices.</td>
</tr>
<tr>
<td>Demir (2015)</td>
<td>The purpose of the present study was to compare organizational identification and organizational citizenship behaviors of public and private preschool. The results of the study indicated that there was a statistically significant difference in teachers’ organizational citizenship behaviors and organizational identification based on their job status.</td>
</tr>
</tbody>
</table>
The framework of the research

The theoretical framework of the research investigated, the effect of organizational citizenship behavior on the proactive environmental strategies. The empirical model of the research is as below:

![Research Model](image)

**Figure 1. Research model**

The main hypothesis of the research

There is a meaningful relation between organizational citizenship behavior and proactive environmental strategies.

The methodology of the research

With regard to the target and the result of the research, We can consider it as a applied research. Also, refer to the data collection, this research is an exploratory and survey research. Statistical population in this research includes the total emergency medicine students at Iran University that they have direct contact with patients. A sample with size of 79 individuals was selected and sampling method was in a random manner.

A standard questioner was used to collect data. This questionnaire included 2 parts: The first part included the general questions related to the age, gender, the work experience etc. and the second part included professional questions.

The organizational citizenship behavior questionnaire adapted to the Podsakoff et al. (2000), the questionnaire is composed of 16 items were measured by using a Likert-type scale and also 7 items were measured by using a five-point Likert-type scale for proactive environmental strategy.

**Convergent Validity measurement**

In this research we used discriminant validity because each indicator can make a suitable discriminant for evaluating the component in comparison with other components of this model. In the other word, each indicator is just used to evaluate it, related component and totality all components are discriminated from each other. With regard to the average variance indexes, it was suggested that the amount of this indicator for all components is more that 0.5. composite reliability (CR) and the Cronbach's alpha are used to evaluate the validity of questioners. If this index is more than 0.7, the validity is approved in our research. All amount
of this indexes are more than 0.7, So, the evaluation instruments are confirmed. All validity and reliability indexes are listed in table 2.

Table 2: Validity and Reliability indexes

<table>
<thead>
<tr>
<th>Cronbachs Alpha</th>
<th>CR</th>
<th>AVE</th>
<th>Indexes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.765</td>
<td>0.743</td>
<td>0.725</td>
<td>Organizational citizenship behavior</td>
</tr>
<tr>
<td>0.851</td>
<td>0.856</td>
<td>0.772</td>
<td>Proactive environmental strategies</td>
</tr>
</tbody>
</table>

Divergent Validity Measurement

The correlation coefficient and divergent validity have been illustrated in Table 4-2. The main diameter of this matrix is the second root of average variance (AVE). The main condition for divergent validity is that the second root of average shall be more than all other correlation coefficient of that variable with other variables. For instance, the second root of average variance of organizational citizenship behavior variable is equal to %687 which is more than the amount of correlation of this variable with other variables. As, it was shown in the table. The second root of average variance index for all variables is more than correlation of that variable with others. At the bottom of main diameter, the Pierson correlation coefficient were shown. The position coefficient is related to the position and direct relationship and the negative coefficient is related to the negative and reverse relationship between two variables. All coefficient are valid provided that the error is less than 0.05.

Table 3: Pierson correlation coefficient and discriminant validity

<table>
<thead>
<tr>
<th></th>
<th>Organizational citizenship behavior</th>
<th>Proactive environmental strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational citizenship behavior</td>
<td>0.687</td>
<td></td>
</tr>
<tr>
<td>Proactive environmental strategy</td>
<td>0.519</td>
<td>0.475</td>
</tr>
</tbody>
</table>

** the main diameter is the second root of average variance(AVE)

Measurement of model

For evaluating the model, researcher shall evaluate the relation between the latent and observed variables. The target of this research is determine the validity or reliability of the measurements. With regard to the validity, the problem is that if the indexes or observed variables are measuring the exact target of the researcher or not. Although the reliability determined the accuracy used indices in measurement of the variables(Kalantari, 2009). In
order to analyze the internal structure of questionnaire and investigating the factors making each component or latent variable, the confirmatory factor analysis has been used to extract and explore the equations related to each component (latent variables). The confirmatory factor analysis of research components are as below:

Table 4: Loading factor of research variables

<table>
<thead>
<tr>
<th></th>
<th>Organizational citizenship behavior</th>
<th>Proactive environmental strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0/540</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>0/448</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>0/633</td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>0/748</td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>0/601</td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>0/798</td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>0/816</td>
<td></td>
</tr>
<tr>
<td>A8</td>
<td>0/658</td>
<td></td>
</tr>
<tr>
<td>A9</td>
<td>0/706</td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>0/675</td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>0/670</td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>0/489</td>
<td></td>
</tr>
<tr>
<td>A13</td>
<td>0/451</td>
<td></td>
</tr>
<tr>
<td>A14</td>
<td>0/627</td>
<td></td>
</tr>
<tr>
<td>A15</td>
<td>0/404</td>
<td></td>
</tr>
<tr>
<td>A16</td>
<td>0/661</td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>0/690</td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>0/867</td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>0/660</td>
<td></td>
</tr>
</tbody>
</table>
The result of confirmatory factor analysis of research variables have been listed in the table 3-4 and figure 4-1. Loading factors related to the components of researchers variables are significance because the confidence lend is more than %99.

The results also confirmed that the studied components had a high validity because all of the loading factors had the high confidence level of %99. So, they play a crucial role in measuring the components.

**Partial least squares model**

The method of analyzing data in this research is based on variance. so, the equations are analyzed by least squares model(PLS1) which was introduced by World (1975) for the first time. In this method which is based on covariance, making the maximum amount of covariance of dependent variables explored by one independent variable was used instead of creating covariance matrix experimentally. This method like all structural equation model includes one structure which can specify the relation between latent variables and the related equation that determine the relation between that latent variable and its component. There is a third part in this method based on weighted relation for evaluating loading factors of latent variables.

The partial squares is based on loading factors instead of structural equation model based on variance which evaluates the model’s parameters at first and then loading factors by returning them to the sum of all components, so, in the least squares method, the variable are measured based on accurate Linear combination of experimental components or using this evaluated data instead of latent variables. So, the weighted amount used for measuring loading factors are evaluating in which their amount is more than the variance of independent variables. This method is useful for measuring the dependent variables. We can evaluate a unique value for each latent variable by measuring the average weight of those components. Actually, the main method of the partial least square is evaluating weighted relations between components of a latent variable at first and then calculating loading factors by using those weighted relations and the average weight of the related components and finally using those loading factors to evaluate parameters of structural relations in regression equations(Chin, 1988).

After evaluating fitness of measurement models, we need to check fitness of structural model of this research. In this section, the factors for validity of structural model is described.

Coefficient of determination (t): To evaluate fitness of structural model for this research, some factors were used which the main factor is coefficient of determination or t-value.
The first loading factor is evaluating the relation between the variable in the model (structural part) and the coefficient of determination (\( R^2 \)). If this amount is more than 1.96, the relation between variables and the hypothesis of research with confidence level of 0.95 are confirmed.

It is notable that the values are just confirmed the relations not the severity of the relation between variables.

Coefficient of path 1: The coefficient path between latent variables is evaluating based on algebraic signs, values and determination. Each coefficient path in first structural model is correspondent with a standard Bet coefficient in the regression of normal least squares. The path coefficient describes the positive effect (direct relation between two components) of one component on another component. Although the negative coefficients describes the negative effect (reverse relation) of one component on another one. The value of path coefficient of one component against another one is described by increasing the number of indirect path coefficient (Azar et al., 2012).

R2 or R square: This factor is used for making a relation between measuring part and structural part of the model and describes the effect of an Exogenous or independent variable on an Endogenous or dependent variable. One of the main advantages in the partial least square method or PLS is decreasing the error of measurement or increasing the variance between variables and functions by using this method. It have been used For evaluating fitness of structural model in the study of R2 coefficient related to the Endogenous (dependent) latent variables of the model.

R2 is a factor described the effect of an Exogenous variable and Endogenous variable and 3 values of 0.19, 0.32, 0.67 are considered as weak, middle and strong values respectively (Chin, 1988).
Figure 2: Structural equations model based on estimating the path coefficient
Figure 3: structural equations model based on determination coefficient (t-value)

**Analysis of hypothesis**

There is a meaningful relation between organizational citizenship behavior and the proactive environmental strategies.

According to the path coefficient (0.519) and t variable (6.67) it was found that t variable is more than 2.57. So, organizational citizenship behavior with the level of trustable equals to 99% has a positive and meaningful relation with proactive environmental strategies. So, the main hypothesis is confirmed.

The coefficient of multiple correlation($R^2$) which is a measure of how well dependable variable can be predicted using an undependable variables, is equal to 0.269. With this regard to the prediction of changes in proactive environmental strategies by the variables related to the organizational citizenship behavior is about 27%. All of result have been shown in table 6.
Finally, the result is that organizational citizenship behavior has a positive and significant effect on proactive environmental strategy.

**Conclusion**

The purpose of the present study was to examine the structural relationship between organizational citizenship behavior and proactive environmental strategy. The finding of this research showed a positive relationship between them that is compliant with previous studies. For example, according to Kolade et al (2014), hospital can increase performance through organizational citizenship behavior and positive corporate image. Pinzone et al (2014), shows that the lack of commitment to environmental issues within the organization represents the main barrier to healthcare organizations implementing PESs. Furthermore, the difficulties in evaluating the impacts of advanced environmental practices negatively moderate the influence of stakeholders on developing PESs. Our findings showed that some behavior such as organizational citizenship behavior can improve some proactive performance in organizations (in this paper hospitals). So, for this purpose, Hospital managers and administrators should encourage their employees to engage in more organizational citizenship behaviors to improve performance and this in turn promote good perception of the hospital services, in other hand, some studies showed that the lack of employee commitment and the difficulty in evaluating impacts represent the major roadblocks needed to be overcome by healthcare organizations for adopting PESs. As well as, Preparing and publishing scientific magazines, posters and brochures to spread the knowledge and inform personnel about consequences of damaging the environment and also holding some classes at work to show the advantages and disadvantages and also improving the advantages to make the personnel more skillful about this matter. Also, we can propose that Top managers commitment to training can improve the implementing the organizational citizenship behavior an PESs in Hospitals. Generally, In applying these environmental practices correctly, a company can increase employee commitment; encourage behaviors oriented toward risk taking and experimentation; improve teamwork; increase flexibility and cooperation; and attract and retain highly component employees needed to develop citizenship behavior.

By definition, for a PES to develop, it is necessary to apply voluntary systematic approaches that go beyond what is required by current regulations. In doing so, companies often apply standards and environmental management systems (EMSs). These EMSs are based on structural procedures and policies designed to be implemented through specific protocols. For its implementation, manuals often develop clear rules and precise work instructions that explain to employees the correct ways to develop operations in order to meet environmental
requirements. This standardization of environmental tasks is performed in order to simplify employees’ work and ensure consistency and control in the proceeding, eliminating subjectively in implementing environmental criteria. Due to the systematic nature of EMS, organizational citizenship behavior gets direct and positive results, which is essential to property implementing protocols and environmental actions that are often novel and with which workers are often unfamiliar.

Finally, this theoretical framework is useful for analyzing the relation between the evaluation of organizational citizenship behavior and proactive environmental strategies in the context of such companies like healthcare organizations.
References


Kalantari, Kh. (2009), Structural equation modeling in social-economical research(LISREL-SIMPLIS). Tehran, Iran, Farhange safa publishing, p 136. [In Persian].


