Effect of Organizational Citizenship Behaviour on Total Quality Management and Organizational Performance (Case study: Dana Insurance Co.)

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Abstract
This study examines the effect of organizational citizenship behaviour on organizational performance and total quality management. The objective of this study is functional survey in terms of data collection and it uses correlation to analyze data. Reviewing the literature and available models of organizational citizenship behaviour, total quality management and organizational performance, the important variables were identified and the model and hypotheses were developed. A researcher-made questionnaire was used to measure the variables. The studied sample included 217 workers of Dana Insurance, Tehran, selected by simple random sampling method. Test results of hypotheses using structural equation modeling indicate a significant effect of organizational citizenship behavior on components of total quality management as well as a significant effect of these components on organizational performance. Finally, based on the results obtained, suggestions and solutions were presented to the insurance company and future investigators.

Keywords: total quality management, organizational citizenship behaviour, organizational performance

Introduction
Since the early days of management field, efforts to improve the performance have been an inviolable principle developing new discussions. In primary Management schools, people were assessed by behaviors expected in the job description and job specification; while, behaviors beyond those are currently considered (Hasani Kakhaki & Gholipour, 2008). There are now firmly believes that organizational performance largely depends on efforts of the employees beyond the defined requirements of roles. To compete on a global scale, to satisfy needs and expectations of customers and adapt to the changing nature of jobs, in addition, enterprises tend to hire employees who go beyond tasks and roles defined in their job description (Joo Y. & Soonkwan, 2008). These behaviors include pro-social behaviors, extra-role behaviors and organizational citizenship behavior. The purpose of these studies is to define the kind of individual behaviors in which the person believes in long term participation in the success of the organization. These behaviors have been ignored in employee performance evaluation (Castro, et al, 2004). The purpose of this article is to explore the effect of these behaviors on total quality management and organizational performance in Dana Insurance.
Theoretical Framework
Organizational Citizenship Behavior

Organizational Citizenship Behavior (OCB) was first defined by Batman and Organ (1983) as an individual behavior which is voluntary, not explicitly or implicitly prompted by the formal reward system, and will increase the efficiency of the organization (Pascal, 2009; Loyd, 2011; Hasanreza, 2010; Yui-tim et al, 2006). The willingness of staff to actions which go beyond the formal requirements of their role is also known as one of the basic elements of OCB (Soner Psolat, 2009). In recent decades, many terms are used to describe such behavior as OCB (Graham, 1991 and Organ, 1983), socialist and extra-role behaviors (Van Dyne & Cummings, 1990) and organizational spontaneity (Organ, 1983).

Although the pace of research and studies in this area have increased dramatically since 2000, some also have undesirable consequences. For example, Van Dyne (1995) noted that most studies on OCB and its related concepts such as socialist behaviors and organizational spontaneity focus on a word called as substantive validity by Schwab in 1980, whereas it needs to focus more on construct validity. In fact, the literature focuses more on understanding the relationship between OCB and other constructs to precisely define the nature of the OCB.

Dimensions of Citizenship Behaviors

The most prestigious segmentation provided about the size and components of OCB is presented by Organ (1988). This scale is composed of five dimensions which constitute the structure of OCB and are used in various studies; these five dimensions are (Pascal Daille, 2009; Loyd Beal, 2011; Hasanreza, 2010; Yui-tim et al, 2006):

- Altruism: helping partners and employees to perform tasks in unusual circumstances.
- Responsibility: performing the designated tasks in a manner far beyond what is expected (for example, work after office hours for the benefit of the organization).
- Generosity: emphasizing the positive aspects rather than the negative aspects of the organization.
- Civic Virtue: requiring support for organizational operations.
- Propriety: consulting with others before action, giving information before action, and exchanging information.

Netemeyer used the OCB dimensions in the form of four categories which are classified as:

- Fairness: tending to be patient against inevitable harassments and work extortions without complaining.
- Civic behavior: showing respect to participation in the organizational social life.
- Conscientiousness: behavior which goes beyond the requirements established by the organization in the workplace. For example, after hour work for corporate profitability.
- Altruism: helping partners to fulfill their obligations.

Key essence of definitions presented on OCB is that such behavior increases organizational effectiveness. Experimental studies have identified factors which improve OCB. These factors are: job satisfaction, transformational and supportive leadership, enjoyable work and job involvement, organizational support, trust, organizational justice, psychological enforcement and characteristics of employees (Moghimi, 1390, 114). Overall, effect of OCB on the performance generally has been accepted by the researchers (Seyed Javadoc & Javidan Nejad, 2007).

Total Quality Management

Total quality management (TQM) is a new management paradigm in which all internal measures of organizations are related to assessment of responsiveness to customer needs and expectations (Alen, meyer, 1990). Managers of most current organizations are faced with problems;
they need to continuously raise yields, improve product quality, and provide customers with quality services. To improve quality and increase productivity, organizations need to implement plans such as total quality management (TQM) (Robbins, 1390, 20). The term TQM which itself includes three terms, management, quality and total and attempts to improve all processes, productions and activities of the organization in order to provide customer demands and needs and improve flexibility and competition to achieve optimal activity, is a reflection of three terms included in the TQM (Moghimi & Ramezan, 2012, p. 124). TQM is an approach based on which management improves quality leading to customer satisfaction by participation of all employees, customers and suppliers. TQM requires organizations to adopt new approaches to improve product quality (Ross, 1993). TQM is a process focused on customers, quality, fact, relying on teams to achieve strategic goals through continuous improvement of processes by senior management. TQM is an organizational strategy providing customers with high quality products and services through qualitative methods. The term total in TQM distinguishes it from traditional inspection, quality control and quality assurance (Dessler, 2003). In TQM, quality is defined by the customer. Therefore, the product needs to be organized to meet customer expectations. Customer expectations change for their age, gender, personality, profession, rank and status. In other words, what customer considers as quality may no longer be considered quality for other customer. Quality for all customers is a TQM challenge in global competition. To achieve the goals of development and enhance the quality of an organization to compete alongside other competitors, Americans developed a model called as Malcom Baldrige model (Kaveh, 2007). The most important contribution of this model to organizations was to provide scales and standards to measure performance. Thus, the model was used by many organizations (Curkovic et al., 2000) and many studies showed a relationship between these components and organizational performance. Components of this model include (Joo Y. and Soonkwan, 2008):

- Leadership
- Management Staff
- Focus on the Customer
- Planning
- Process Management
- Information and Analysis

**Organizational Performance**

Continuous improvement of organizational performance leads to tremendous synergy which can support development and opportunities for organizational excellence. In this case, governments, organizations and institutions put efforts. All of the above is not possible without measuring knowledge of achievement and identifying challenges (Rahimi, 2007). Strategic assessment of performance is always one of the first and most basic prerequisites for organizational improvement plans to identify strengths and weaknesses. This is of great importance in the knowledge-based economy (Mehregan & Shafiei, 2004). Currently, it is important for managers and organizations to know about the performance that how it helps to achieve goals (Kaplan, Norton, & Rugelsjoen, 2000).

Several models were developed to measure performance, such as sink and Tatle (Neely A. 2009), performance matrix (Kanji, 2001) and the performance pyramid model (Sink, 1998). In literature of TQM, organizational performance is measured by financial and operational indicators, service efficiency and customer satisfaction using multiple indicators. These indicators lack comprehensiveness and simplicity in terms of content and items. Samson and Terziovski (1999)
have presented a model for measuring organizational performance which is comprehensive and simple. Components of this model include (Joo Y. and Soonkwan, 2008):

- Ethics of Staff
- Customer satisfaction
- Quality of Service
- Reduced waste

**Conceptual Model and Hypotheses**

Theoretical framework was determined by reviewing literature; so that, the Organ’s model (1988) for OCB, Malcom Baldrige model (1995) for TQM, and Samson and Terziovski model (1999) for organizational performance were used. According to previous studies and the definitions presented above, the following conceptual model is presented to examine the effect of OCB on components of TQM and organizational performance, as described in Figure 1 below: (Note: In all models, the variables are latent so their shape is oval).

![Figure 1: the conceptual model](image)

**Hypotheses**

1. OCB has an effect on TQM.
   1.1. OCB has an effect on leadership of TQM.
   1.2. OCB has an effect on staff management of TQM.
   1.3. OCB has an effect on customer of TQM.
1.4. OCB has an effect on planning of TQM.
1.5. OCB has an effect on process of TQM.
1.6. OCB has an effect on information and analysis of TQM.

2. TQM has an effect on organizational performance improvement.
2.1. Leadership of TQM has an effect on organizational performance improvement.
2.2. Staff management of TQM has an effect on organizational performance improvement.
2.3. Management of TQM has an effect on organizational performance improvement.
2.4. Planning of TQM has an effect on organizational performance improvement.
2.5. Process of TQM has an effect on organizational performance improvement.
2.6. Information and analysis of TQM has an effect on organizational performance improvement.

3. TQM mediates the relationship between OCB and organizational performance.

**Methodology**

Since the objective of this study was to determine causal relationships between OCB, components of TQM and organizational performance in Dana Insurance; then, the objective of the research is functional. In terms of collecting and analyzing information, it is descriptive and correlational and based on structural equation modelling. To investigate the relationships between variables in recent decades, many methods have been proposed. One of these methods is structural equation modeling or multivariate analysis with latent variables. Structural equation modeling is a comprehensive statistical approach to test hypotheses about the relationships between observed variables and latent variables. This approach can test reasonability of the theoretical models in special societies. Since the most variables in managerial studies, particularly organizational behaviour are latent, necessity of these models increasingly raises (Segares A.H, 1997).

At the present model, organizational performance and components of TQM are endogenous variables and OCB is the exogenous variable; on the other hand, the later can be considered as independent and organizational performance as the dependent and TQM as mediator variable. The major material to collect data is questionnaire based on which 10 items for OCB, 18 items for TQM components (3 items for leadership, 3 items for staff management, 3 items for customer, 3 items for planning, 3 items for process management, 3 items for information and analysis), 8 items for organizational performance are considered in the 5-point Likert scale. In order to assess reliability of the questionnaire, a prototype including 30 items was pre-tested; then, coefficient of reliability was calculated by Cronbach's alpha using the data obtained from the questionnaire. The reliability of variables was obtained 0.876% for OCB, 0.901% for TQM and 0.811% for organizational performance. These numbers indicate the good reliability of the questionnaire. To measure validity, the content validity was used, so that, the present questionnaire was developed by referring to the standard inventories available in books, management studies and different theses; then, the modifications were made in the final questionnaire by the help of elites.

**Participants**

Participants of this study included all the employees working in Dana Insurance. Due to the specified sampling framework and publicity (involvement) of behavioral variables for all members, simple random sampling has been used. Participants of the study included 500 people of which sample size was selected as 217 by the sampling formula of Cochran finite population:

$$n = \frac{N \left( Z_{1-\alpha/2} \right)^2 \rho q}{N \epsilon^2 + \left( Z_{1-\alpha/2} \right)^2 \rho q}$$

Openly accessible at [http://www.european-science.com](http://www.european-science.com)
N= sample size
Since the p-value is not available, it is equal to 0.5. In confidence level 0.95 (α= 0.05), N= 500 including the total number of participants and 𝝋 = 0.05, the sample size is determined as follows. This also corresponded with Morgan’s table.

\[ n = \frac{500 \times 1.96^2 \times (0.5)(0.5)}{(500)(0.05)^2 + (1.96)^2(0.5)(0.5)} = 217 \]

Results
Data analysis was conducted in two parts: descriptive and inferential statistics. The descriptive statistics describe the demographic characteristics of the respondents to the questionnaire, as follows:

Respondents included 47.9% male and 52.1% female; education of the samples was 37.8% diploma, 46.1% bachelor's, 10.1% master's and 6% doctorates. In addition, 46.5% of the members had 1-10, 45.2% had 11-20 and 8.3% more than 21 years of experience.

Measurement Models of Variables
Before testing the conceptual models and hypotheses, it is required to measure the accuracy of models measuring endogenous variables (TQM and organizational performance) and exogenous variables (OCB). Therefore, these two variables were measured by models using the first and second order confirmatory factor analysis. Confirmatory factor analysis is one of the oldest statistical methods for investigating the relationship between latent variables and observed variables (items) indicating the measurement model (Byrne MB, 1997).

A) Measurement Model of OCB
Results of confirmatory factor analysis for OCB are presented in Figure 2. According to the output of Lisrel, the calculated value of \( \chi^2/df \) is less than 3, the RMSEA value is 0.091 and P-Value index is equal to 0.0000. Fitness indices indicate that the measurement model fits and all the numbers and parameters are significant.

![Figure 2: standard estimation of OCB](image)

B) Measurement Model of TQM
Results of first and second order confirmatory factor analysis for TQM are presented in Figure 3. Obviously, the calculated value of \( \chi^2/df \) is less than 3, the RMSEA value is 0.071 and P-
Value index is equal to 0.0000. Fitness indices indicate that the measurement model fits and all the numbers and parameters are significant. The results of measurement model indicate a significant positive correlation between components of TQM.

C) Measurement Model for Organizational Performance

Results of confirmatory factor analysis for organizational performance are presented in Figure 4. Obviously, the calculated value of $\chi^2$/df is less than 3, the RMSEA value is 0.090 and P-Value index is equal to 0.0000. Fitness indices indicate that the measurement model fits and all the numbers and parameters are significant. The results of measurement model indicate a significant positive correlation between components of TQM.
relationships were analysed using multivariate analysis or multiple regression by structural equation modeling, particularly, the structural models (path analysis). It is noteworthy that standardized coefficients\(^1\) and significance numbers\(^2\) are used to support or reject a hypothesis. For all paths, 95% confidence coefficient and 5% error level is used.

Chi square=1711.98; df=582; p-value=0.000; RMSEA=0.096

**Figure 5: standard estimation of the model**

**Figure 6: significant numbers of the model**

\(^1\) Standard coefficients refer to values of double correlation (between two variables) to compare the effect of components; the greater they are, the more influence of independent variable on the dependent variable.

\(^2\) The significance number in Lisrel is the same as Sig in SPSS; the difference is that a coefficient needs a significant number larger than 1.96 or smaller than -1.96 to be significant. Totally, it is used to support or reject a hypothesis. A significance number >1.96 indicates that the independent variable has a stronger effect on the dependent variable.
A) Model Fitness

Goodness indices of model fitness are $X^2$, df, P value, and RMSEA. The best indicator of Lisrel is $X^2$/df (chi-square to degrees of freedom); the smaller than 3, the better model fits. The index RMSEA is the mean squared error of the model. The index is built based on the model errors. Its allowed limit is 0.09, ie, if $<0.09$, it will be reasonable; if $<0.05$, it will be very good.

<table>
<thead>
<tr>
<th>Table 1: indicators of model fitness</th>
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</thead>
<tbody>
<tr>
<td>Indicators</td>
</tr>
<tr>
<td>Values</td>
</tr>
</tbody>
</table>

The values obtained in Table 1 shows the conceptual model fits well. With respect to the fact that the mean squared model errors (0.096) is 0.09 and the chi-square (1068.31) to the degrees of freedom (365) is also smaller than 3, and the value of GFI, AGFI and NFI is 0.91, 0.90 and 0.92, respectively, which indicates a relatively high fitness, thus the model well fits, indicating that the regulated relations between variables is reasonable based on the theoretical framework.

B) Hypotheses

Obviously, the model well fits. As shown in Table 3, the following results was obtained regarding the relationship between components of the model:

- OCB has a direct positive (0.48) and significant (6.31) effect on leadership, a component of TQM; thus, hypothesis 1-1 is supported.
- OCB has a direct positive (0.48) and significant (6.25) effect on staff management, a component of TQM; thus, hypothesis 1-2 is supported.
- OCB has a direct positive (0.48) and significant (5.40) effect on customer, a component of TQM; thus, hypothesis 1-3 is supported.
- OCB has a direct positive (0.50) and significant (6.44) effect on planning, a component of TQM; thus, hypothesis 1-4 is supported.
- OCB has a direct positive (0.46) and significant (6.02) effect on process, a component of TQM; thus, hypothesis 1-5 is supported.
- OCB has a direct positive (0.50) and significant (6.56) effect on information and analysis, a component of TQM; thus, hypothesis 1-6 is supported.

According to the supported sub-hypotheses (1-1) to (1-6), it can be concluded that OCB influences on TQM; thus, the first major hypothesis is supported.

- Leadership has a direct positive (0.59) and significant (7.02) effect on organizational performance; thus the hypothesis 2-1 is supported.
- Staff management has a direct positive (0.57) and significant (6.71) effect on organizational performance; thus the hypothesis 2-2 is supported.
- Customer has a direct positive (0.75) and significant (9.45) effect on organizational performance; thus the hypothesis 2-3 is supported.
- Planning has a direct positive (0.31) and significant (3.41) effect on organizational performance; thus the hypothesis 2-4 is supported.
- Process has a direct positive (0.31) and significant (3.40) effect on organizational performance; thus the hypothesis 2-5 is supported.
- Information and analysis has a direct positive (0.47) and significant (5.31) effect on organizational performance; thus the hypothesis 2-6 is supported.
According to the supported sub-hypotheses (2-1) to (2-6), it can be concluded that there is a significant relationship between TQM and organizational performance improvement; thus, the second major hypothesis is supported.

OCB has a positive, direct and significant effect on TQM (main hypothesis 1) and TQM has a positive, direct and significant effect on organizational performance (main hypothesis 2); thus, TQM mediates the relationship between OCB and organizational performance. Therefore, the hypothesis is supported.

Table 2: Results obtained from Structural equation modeling (path analysis)

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Standardized coefficients</th>
<th>t-Value</th>
<th>R²</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1-1</td>
<td>OCB Leadership</td>
<td>0.48</td>
<td>6.31</td>
<td>0.23</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 1-2</td>
<td>OCB Staff management</td>
<td>0.48</td>
<td>6.25</td>
<td>0.23</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 1-3</td>
<td>OCB Customer</td>
<td>0.48</td>
<td>5.4</td>
<td>0.23</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 1-4</td>
<td>OCB Planning</td>
<td>0.5</td>
<td>6.44</td>
<td>0.25</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 1-5</td>
<td>OCB Process</td>
<td>0.46</td>
<td>6.02</td>
<td>0.21</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 1-6</td>
<td>OCB Information</td>
<td>0.5</td>
<td>5.56</td>
<td>0.25</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2-1</td>
<td>Leadership Organizational performance</td>
<td>0.59</td>
<td>7.02</td>
<td>0.35</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2-2</td>
<td>Staff management Organizational performance</td>
<td>0.57</td>
<td>6.71</td>
<td>0.32</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2-3</td>
<td>Customer Organizational performance</td>
<td>0.75</td>
<td>9.45</td>
<td>0.56</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2-4</td>
<td>Planning Organizational performance</td>
<td>0.31</td>
<td>3.48</td>
<td>0.09</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2-5</td>
<td>Process Organizational performance</td>
<td>0.31</td>
<td>3.4</td>
<td>0.09</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2-6</td>
<td>Information Organizational performance</td>
<td>0.47</td>
<td>5.31</td>
<td>0.22</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Conclusion
Reviewing the results based on structural equation model shows that OCB influences the components of TQM. In addition, components of TQM influence on corporate performance. Thus, organizational performance seems to be improved by improving OCB and TQM. Therefore, the following suggestions are offered for improving the above variables:

Suggestions to Improve OCB:
Considering the first hypothesis that OCB significantly influences on components of TQM, improvement in each OCB component will lead to desirable outcomes in the company; therefore, following suggestions are provided to improve the considered variable:
1. Employee participation in corporate affairs and obtaining their comments
2. Encouraging employees to participate in corporate affairs
3. Strengthening altruism by helping colleagues in resolving work-related problems, helping new colleagues for adaptation work environment, performing tasks of colleagues as necessary and communicating with colleagues.

4. Strengthening work ethics among employees by encouraging self-control and following organizational rules and regulations without the need to exert control by supervisors.

5. Encouraging employees to work harder and reduce errors and increase quality of service.

6. Fostering a sense of chivalry by encouraging employees to focus on the positive aspects of the work environment and avoiding to magnify workplace problems and excessive complaints about the organization and its procedures.

7. Fostering goodwill among employees by avoiding harm to colleagues for personal benefit and consulting with colleagues in matters which may impact on other people.

8. Efforts to strengthen the staff’s desire to maintain a positive image and reputation of the company by providing positive information to clients and the external environment.

9. Periodic meetings for creating harmony and understanding between managers and employees through open dialogue.

10. Strengthening the culture of considering material and spiritual needs of staff and partners.

Suggestions to Improve TQM:
Considering the second hypothesis that components of TQM significantly influence on organizational performance, improvement in each TQM components will lead to organizational performance; therefore, following suggestions are provided to improve the considered variable:

1. Considering the continuous improvement of organizational performance in strategic planning.

2. Emphasizing on continuous improvement of organizational performance by senior executives.

3. Incorporating the continuous improvement of organizational performance in the company's mission statement and operational plans.

4. Strengthening a culture of continuous improvement in organizational performance by rewarding employees with high performance, satisfying the continuous improvement in the speech and actions of corporate managers as a practical model.

5. Predicting a systematic approach to collect and analyze information regarding the quality and using them to improve company performance.

6. Using statistical analysis and reporting related to organizational performance to stakeholders.

7. Emphasizing on corporate social responsibility by chief executive officers.

8. Supporting the suggestions and activities to improve quality by the senior managers.

9. Focusing on empowering employees through training programs for the benefit of employees and their participation.

10. Considering clients and customers by modifying organizational processes as required and communicating with them.

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