

EXPLORING THE CASUAL RELATIONSHIPS BETWEEN ORGANIZATIONAL CITIZENSHIP BEHAVIOR, TOTAL QUALITY MANAGEMENT, AND PERFORMANCE

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ABSTRACT

In search of what impacts firm's performance, academicians and practitioners study various ways to link different organizational culture and management methodologies to performance. Numerous management field research articles report how various organizations implement the Total Quality Management (TQM) methodology which brings improved performance, such as customer satisfaction and productivity. Organizational behavior researchers also report that Organizational Citizenship Behaviors (OCB) is related to organizational performance. However, there is no specific study that explores the relationship between OCB, TQM and performance simultaneously. The purpose of this study is to empirically explore the causal relationships between OCB, TQM and performance domains. The result suggests the mediating role of TQM between OCB and performance. Managerial implications and limitation of this study are offered.

INTRODUCTION

Soon after the initial OCB concepts were introduced (Bateman and Organ, 1983), numerous studies followed by relating OCB with various dimensions of organizational performance. Vast majority of existing studies about the relationship between OCB and performance are theoretical rather than empirical (Borman and Motowidlo, 1993). These studies typically suggest that OCB is positive for organizations and benefits both management and subordinates. Managers value OCB that creates a work environment conducive to cooperation. It helps to reduce the amount of time a manager spends on an issue and enables focusing on other opportunities for improving organizational

performances (Turnipseed and Rassuli, 2005). However, empirical studies reported thus far do not support a consistent linkage between OCB and performance.

Many of today's top performing organizations are implementing the TQM strategies in hopes of improving their performances. TQM is a management methodology that helps organizations achieve improved organizational performance by enforcing problem solving based on quality. TQM is a people-focused system which strives to increase customer satisfaction while lowering operational cost. The foundation of TQM is to implement continuous improvement of all processes, customer driven quality, production without defects, focus on improvement of processes rather than criticism of people, and the making of decisions based on data (Flynn et al., 1995). This article has four major purposes: to determine the existence of a direct link between OCB and performance, to replicate the relationship between TQM to performance linkage, to determine the relationship between OCB and TQM, and to test the potential mediating role of TQM on the link between OCB to performance.

ORGANIZATIONAL CITIZENSHIP BEHAVIOR

Organizational Citizenship Behaviors (OCB) is defined as those extra work-related behaviors which go above and beyond the routine duties prescribed by their job descriptions or measured in formal evaluations (Bateman and Organ, 1983). Since these efforts are made beyond the requirements specified in the job description, their presence cannot be enforced (Organ, 1988), and their absence cannot be penalized (Van Dyne et al., 1995). Examples of these efforts include cooperation with peers, performing extra duties without complaint, punctuality, volunteering and helping others, using time efficiently, conserving resource, sharing ideas and positively representing the organization (Turnipseed and Rassuli, 2005).

Workers, who go above and beyond the minimum requirements of their job description, by suggesting improvements, affect performance and result with enhanced workgroup efficiency. OCB impacts workgroup efficiency during times of crisis management. For example, having conscientiousness and helping others result in decreased inter-group conflict and allow managers to focus on more pressing matters (MacKenzie et al, 1999). Having workers highly engaged in OCB may improve managers' efficiency by allowing them to devote a greater amount of time to long-range planning matters. Subsequently, managers benefit from positive OCB as well as employees (Turnipseed and Rassuli, 2005).

According to Turnipseed and Rassuli (2005), OCB elements which enhance performance include: elements which add social capital, helping or altruistic elements, elements resulting with time savings or problem solving, and other elements which provide socio-emotional support by boosting morale or developing a nurturing culture. Walz and Niehoff (1996) argue that only the helping-type of citizenship behavior element of OCB is linked to performance, while Karambayya (1990) suggests that more OCB elements are found in high-performing workgroups compared to low-performing workgroups.

TOTAL QUALITY MANAGEMENT

TQM methodology to firm's performance relationships have been studied by various researchers in a wide range of industries. The relationship between top management's leadership and performance is recognized in the literature (Flynn et al., 1995; Powell, 1995). Numerous studies point out the significant relationship between HR related TQM elements and organizational performance (Powell, 1995; Arawati, 2005). There has been significant evidence suggesting that customer focus can also result in increased performance (Ho et al., 2001). Some researchers recognize the importance of maintaining good working relationships with suppliers in order to impact performance (Saraph et al., 1989; Ahire et al., 1996). Other researchers indicate that a strong positive relationship exists between benchmarking and performance (Ahire et al., 1996; Arawati, 2005). Abas and Yaacob (2006) define the TQM in ten elements: top management commitment, strategic planning, customer focus, benchmarking, human resource management, supplier relationship, continuous improvement, quality information systems, service design and social responsibility.

INTERRELATIONSHIPS

OCB and performance

Several studies link OCB to performance while separating employees into two groups, the best performing and the worst performing. These research works attempt to understand which employee characteristics managers use to rate them as best performing. These employees may be performing extra work behaviors or they may be involved in activities contributing to the organization. Organ (1990) points out that OCB not only adds to performance, but it may also influence how managers evaluate employees. Katzell and Yankelovich (1975) argue managers believe OCB contributes to performance and suggest analyzing them with that in mind. OCB has now been included in performance evaluations (Werner, 1994). The problem with having managers identify which employees or groups of employees may be classified as being the "best performers" is that these managers are those who might be highly engaged in OCB thereby creating bias. Further, some employees may use "impression management" style in order to create a favorable impression of themselves (Bolino and Turnley, 2003). In order for OCB to directly impact performance, these behaviors must be redirected towards promoting organizational effectiveness. Organ (1988) points out in order for OCB to affect performance, the individual contributions must be aggregated throughout the organization. Organ (1988) argues that even though co-workers may benefit from employees who help others with heavy workloads or those who offer advice to newer employees, individual acts of OCB do not affect performance.

Understanding the overall level of OCB and relating it to firm's performance may shed some light on extant literature. In order to confirm OCB is significantly related to performance, we propose:

H1: OCB is significantly related to firm's performance.

TQM and performance

Several studies divide TQM construct into two groups of practices, the hard and soft elements (Samson and Terziovski, 1999). The hard practices focus on statistical process control, quality function deployment and other quality improvement measures which tend to be more technical and tool oriented. The soft practices of TQM are more concerned with human resource management and people related issues (Ho et al., 2001). Extant empirical studies investigating the TQM to performance link do not show a consistent pattern. Instead, some studies demonstrate that the effective use of soft practices brings significant improvement of performance (Powell, 1995; Adam et al., 1997), while others demonstrate that increased performance results through the use of hard TQM practices (Motwani et al., 1994; Forza and Filippini, 1998).

Ho et al. (2001) note that the relationship between the hard and soft practices has not received as much attention as the topic deserves. Whether the TQM construct is composed of two distinctive groups and which group has greater impact on achieving success deserves further scholastic attention. Extant literature demonstrates various relationships between TQM construct and organizational performance. This study will attempt to replicate these relationships and determine if the causal path from TQM is significantly related to performance. The underlying idea of the TQM is to improve quality and productivity. Therefore, we wish to confirm TQM is significantly related to organizational performance. Thus, we propose:

H2: TQM is significantly related to the firm's performance.

OCB, TQM and performance

Since both OCB and TQM have been theorized to positively contribute towards organizational performance, it stands to reason that TQM should also be positively impacted by employees going above and beyond what is required of them. Thus, we propose:

H3: OCB actions significantly affect the TQM practices.

Subsequently, the question which arises is, "Does the inclusion of TQM help to better explain the relationship between OCB and performance?" In other words, is the relationship between OCB and performance mediated through TQM? Thus, we propose:

H4: TQM mediates the relationship between OCB and firm's performance.

The hypotheses presented in this section form a theoretical contingency model as described in Figure 1.

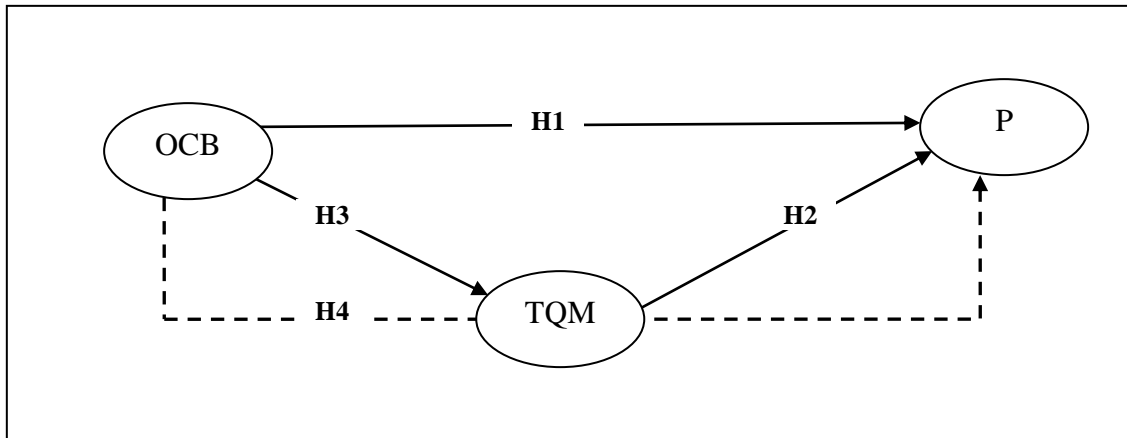


Figure 1: Hypothetical relationship between OCB, TQM and Performance

RESEARCH INSTRUMENT AND ANALYSIS

Survey instrument

The data used for this study was collected from a Fortune 500 multinational company operating in the electronics industry. A survey questionnaire was distributed to managerial employees and was conducted on site. A total of 163 surveys were collected, but due to missing data only 139 surveys were used for this study. The participants answered a total of 65 questions on a 5 point Likert-scale, ranging from 1, strongly disagree, to 5, strongly agree. The survey questionnaire was designed to collect information concerning three areas of management constructs: OCB, TQM, and performance. In order to minimize the potential bias, the questions were designed to ask managers to evaluate what their personnel exhibit in general, in lieu of asking how much the survey participants contribute. This approach was used to decrease the potential bias due to “self-appraisal and impression-management.” There were 20 questions pertaining to OCB, 38 questions for TQM, and 7 questions for performance.

Data Analysis

The first step of analysis was to perform an exploratory factor analysis (EFA) in order to understand the statistical relationship between the data and the constructs in question. The EFA was conducted using the maximum likelihood method of extraction since the data was found to have passed the assumption of multivariate normality. The factors were rotated using vari-max rotation in order to simplify the factor structure and to make its interpretation easier and more reliable.

The 20 OCB pertaining questions were reduced to three factors of:

- F1: Civic duties (helping, company involvement),
- F2: Counter productive work behavior (negative actions, complaining),
- F3: Time management (punctuality, time usage).

The TQM related questions were reduced to three factors which accounted for the information gathered from the 38 questions:

- F1: Soft elements (people management issues, top management leadership),
 F2: Elements external to the company (customer focus, benchmarking),
 F3: Hard elements (product/process management, information and analysis).

The performance section of the survey revealed that it could not be easily reduced into factors. Instead of using factor analysis, we decided to use two questions from the survey as indicators of performance. The two indicators used for performance are customer satisfaction and productivity. We conducted the reliability analysis on OCB and TQM based on the index scores of their factors (i.e. the average score of the factor indicators), and on Performance based on the scores of its two indicators. The results indicated that the Cronbach's alphas for all three constructs (OCB, three items: $\alpha = 0.6061$; TQM, three items: $\alpha = .8719$; Performance, two items: $\alpha = 0.6559$) either exceeded or were close to the recommended critical point of 0.70 (Hair et al., 1998), indicating an acceptable level of internal consistency. The correlation analysis conducted in this study is depicted in Table 1.

	X1	X2	X3	X4	X5	X6	X7
1. Civic Duties	$\alpha = .8028$						
2. CPWB (Inverse)	0.413**						
3. Time Management	0.479**	0.258**					
4. Soft TQM	0.449**	0.231**	0.155				
5. External TQM	0.298**	0.125	0.272**	0.700**			
6. Hard TQM	0.402**	0.140	0.251**	0.709**	0.690**		
7. Customer Satisfaction	0.297**	0.247**	0.173*	0.571**	0.445**	0.486**	
8. Productivity	0.270**	0.207*	0.157	0.414**	0.414**	0.399**	0.507**

** Significant at 0.01 level, * Significant at 0.05 level

Table 1: Correlations between OCB, TQM and performance

The result indicates the variables are positively related and somewhat correlated, with strengths ranging from .125 to .709. Even though correlation by itself does not imply causation, it is none-the-less required in order for there to be a causal relationship (Hair et al., 1998). Therefore, this result is useful towards making causation in this study. The structural model was analyzed using the Amos 5. The final SEM framework for this study is presented in Figure 2. The analysis of the structural model resulted with a chi-square value of 28.168 with 17 degrees of freedom and a probability level of 0.043. This test statistic indicates the overall fit of the model to the data. Since the probability value of the test is just below the .05 level used by convention, we are forced to investigate the models fit by examining the fit indices. The chi-square test is sensitive to sample size and the models degrees of freedom, and for this reason the test is difficult to use as a sole indicator of SEM fit (Hair et al., 1998). The latent variables were: OCB=Organizational Citizenship Behavior; TQM=Total Quality Management; P=Performance. The observed variables were: CD=Civic Duties; CPWB=Counter Productive Work Behavior; TM=Time Management; S-TQM=Soft TQM; Ex-TQM=External TQM; H-TQM=Hard TQM; CS=Customer Satisfaction; Prod=Productivity.

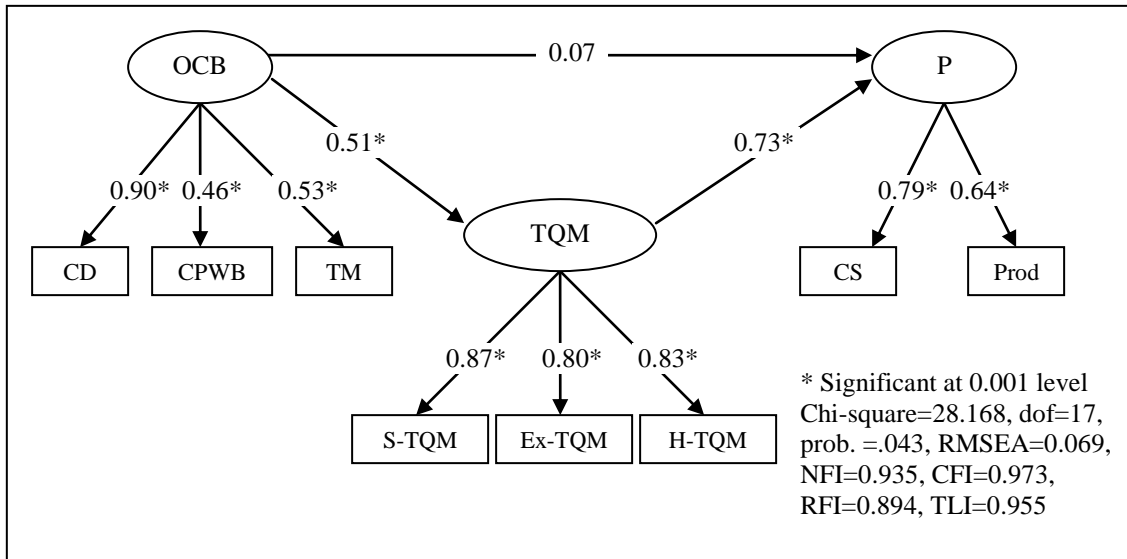


Figure 2: Relationship between OCB, TQM, and Performance

Since the chi-square test is known to be sensitive to sample size and non-normality in the underlying variables, further investigation is required in order to determine if the overall fit of the model to the data is truly acceptable. The comparative fit index (CFI) can also be used to test the absolute fit of the model. In this case the CFI value is 0.973 which is above the .9 level used by convention. Thus, it is safe to say that the model does fit the data very well. The Tucker-Lewis Index (TLI) is another fit index whose value closest to one indicates good model fit. The TLI for the model in this study is 0.955, which also indicates great fit. The Root Mean Square Error of Approximation (RMSEA) is another fit index whose value signifies the level of error of approximation. Values under .07 would indicate a reasonable amount of error, and values near .05 would indicate a close fit to the model. The RMSEA for this study is .069, which also reveals a very good fit between the model and the data in question.

RESULTS

As depicted in Figure 2, all causal paths were shown to be significant except for the direct path from OCB to performance. The path from OCB to performance is not statistically different from zero at the .05 level. Therefore, **H1** which states that OCB is significantly related to performance is not supported. **H2** describes the causal relationship between TQM and performance. In this case, the relationship is statistically significant at the .001 level which supports the idea that implementing TQM methodology does affect the performance. The causal path from OCB to TQM is also statistically significant at the .001 level, which fully supports **H3**. Since the direct path from OCB to performance is insignificant and the remaining paths (from OCB to TQM and TQM to performance) are positive and significant, it appears that TQM fully mediates the relationship between OCB and performance, which supports **H4**.

Our result does not support the hypothesized direct relationship between OCB and performance. This finding suggests that employees who work above and beyond what

they are required to do will not directly affect firm's performance. In other words, there needs to be a management methodology (i.e., TQM) that complements positive OCB in order to impact firm's performance. Our result was able to replicate the findings of other research studies which suggest a causal relationship exists between the TQM and performance constructs. This confirmation helps to uncover the fully mediating role of TQM between OCB and performance. This implies that OCB does have an effect on the performance of a firm even though it is not directly related to it. In other words, OCB by itself does not have a direct effect on customer satisfaction or productivity, but when these actions are directed towards TQM, increased performance would result.

One may argue how engaging in OCB, such as being helpful to co-workers and being involved with company activities, would not directly affect customer satisfaction or productivity. However, by the similar token, we argue how these same actions, when directed toward implementing TQM, would result with increased customer satisfaction and productivity. For example, experienced employees who help others improve the quality of their work would in turn affect customer satisfaction and productivity as well. Further, we argue assessing employees' OCB level can be a good indicator of how a new management methodology such as TQM can turn out. This may bring about a significant managerial implication for firms that are looking to improve performance by implementing a new innovative management methodology such as TQM. OCB and TQM researchers may also benefit from this study as an extension to the current body of literature in the field.

CONCLUSION

This study illustrates the mediating role of TQM between OCB and performance. We add to extant literature by clarifying the relationship between OCB and performance in that there is no direct link from OCB to firm's performance. This result provides several valuable managerial implications. For example, managers employing TQM may refine their appraisal system to include identifying and rewarding employees who engage in positive OCB. These employees' positive OCB actions are not directly reflected in firm's performance. However, positive OCB actions facilitate the management methodologies that have direct impact on firm's performance. Managers may also consider assigning these positive OCB employees to areas where a new management methodology is being implemented such that they indirectly contribute towards firm's performance.

There are limitations to the generalization of the findings noted in this study. The data for this study was collected from a single organization, and this sample may not be representative of other organizations. Further, the independent and the dependent variables were collected from the same instrument. Therefore, it is possible that this method has introduced biases into the sample. For example, people may naturally have a positive outcome bias, which is the tendency to overestimate the degree of positive behaviors their personnel exhibit. Future research is needed in order to replicate these findings with more companies of varying industries. Research into uncovering how OCB is related to performance through other domains beside TQM will also prove meaningful.

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