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Total quality management is a bridge to learning organization

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### **Abstract**

In an effort to arrange the organization, the Open University (UT) to reform the organization. The purpose of transformation is obtained organization flexible, adaptive, and able to learn continuously (LO) by adopting the principles of good and corporate governance (GCG) and total quality management (TQM). Implementation of TQM is done by establishing a quality assurance system (QAS). This study aims to (1) identify processes in the implementation QAS; (2) analyze the effectiveness of the process of knowledge sharing. In this study, the LO is define by organization skilled at creating, acquiring, interpreting, tranferring, and retaining knowledge. While TQM is an approach to maximize their competitiveness through continuous improvement. This study used a qualitative approach. The research location is The Regional Office (RO) of Semarang and Yogyakarta. The informants are all officials at RO, ICT staff and lecturers. The findings of this research is the process of knowledge sharing done intensively in planning activities, product development, as well as in the development of solutions to the audit findings. Factors that encourage effective knowledge sharing is transparency, trust, consistency of actions and policies, fairness, open communication and transparency, closeness in personal relationships, and informal communication effectiveness. While the factors that hinder knowledge sharing is resistance to change, availability of time for sharing the narrow, human resource competency levels are not the same, and the adaptive capacity of team members to the technology slow. Knowledge sharing between auditors with RO less so effectively for communication between them is not intense.

**Keywords:** total quality management, learning organization, knowledge sharing, organization skill, continuous improvement

## **Introduction**

### ***Background***

UT carried out bureaucratic reform since 2001 by using Total Quality Management (TQM) instruments and Corporate and Good Governance (CGG). TQM and CGG are used as "bridges" in transforming UT's organization into learning organization (LO). The International Council of Distance Education (ICDE) assessed UT to be a LO to be able to provide very high quality services (ICDE, 2005). In 2001 UT began building quality assurance systems (QAS). The impact of implementing QAS is the standardization of all UT business processes and quality audits. Quality audits are carried out by examining conformity between the standards set out in the quality assurance system document and their implementation. If discrepancies are found, the auditor will provide a proposed improvement that must be followed up. The repair process is done by sharing knowledge and experience about findings and corrective steps between the auditor and the auditee to develop a corrective action plan. Discussion of findings, development of plans, and examination of results of improvement is a process of knowledge sharing between auditors and auditee.

In a previous study in UT, the authors found that factors that influence LO in UT are information systems, organizational structures, organizational culture, and human resources (Purwanto, 2014); UT has a flexible organizational structure (Purwanto, 2015); existing and tolerance for errors is a driving factor for UT's organizational transformation into LO (Purwanto and Marisa, 2014). Meanwhile, Lim, et al., and Konindari, found that TQM is a bridge for ordinary organizations to transform into LO. Dragomir (2017) found that there is a significant relationship between learning organization and total quality management in theory and practice.

The problem in this study is whether the knowledge sharing is carried out effectively and systematically. This study aims to identify the process of knowledge sharing in the implementation of QAS, especially knowledge sharing between employees in the audited unit and between the auditee and the auditor, including the factors that encourage and inhibit the knowledge sharing process; Analyzing the effectiveness of the knowledge sharing process in the implementation of QAS.

### ***Literature Review***

LO is an organizations where people continually expand their capacity (Senge, 1990), organization of creating, acquiring, interpreting, transferring, and retaining knowledge, (Garvin, 2000), organization's capacity to acquire, share, use, and store valuable knowledge (McShane and Von Glinov, 2010), and the process of knowledge acquisition, information distribution, information interpretation, and organizational retention (Schermerhorn et al., 2011).

In LO, organizations are expected to be able to do error detection and then do error correction (Argyris and Schon: 1983). In the LO, the process of determining the level of error, the formulation of improvement activities, planning improvements, and improvements will involve knowledge sharing. In the TQM concept, knowledge sharing is an important part of continuous improvement. Knowledge sharing will develop if supported by effective organizational structures,

information systems, technology, organizational culture, human resources, and leadership (Marquardt, 2002; Mullins, 2005; Cummings and Worley (2005). While the inhibiting factor of knowledge sharing is bureaucracy, climate competition, control, poor communication, resource use, strict hierarchy, and organizational size are (Marquardt and Reynolds; 1994)

Total quality management (TQM) is an approach to doing business that attempts to maximize the competitiveness of an organization through the continual improvement of the quality of its products, services, people, processes, and environments (Goetsch and Davis: 2000: 51). Important elements in TQM are (Goetsch & Davis, 2000: 51-58); strategically based, customer focus, obsession with quality, scientific approach to decision making and problem solving, longterm commitment, teamwork, continuous process improvement, education and training, and freedom through control'

TQM is synergized with other approaches such as organizational development and knowledge management. The TQM components introduced by Deming and Juran such as field use (Juran), leadership, improve contansly and forever, breakdown and remove barriers, drive out or fear and information are also important components in knowledge management.

In the research at UT, it was found that TQM and GCG were the driving factors for informational technology (IT) implementation, changes in organizational structure, formation of organizational culture, human resource (Purwanto; 2014 and 2015). IT, organizational structure, organizational culture, and human resource together form UT into LO. The findings in UT are reinforced by the findings of Lam Poon Chin, et al. (2008) and Konidari and Abernot (2006), who found that TQM is a good bridge from ordinary organizations to learning organizations. The findings of Lam Poon Chin, et al. (2008), Konidari and Abernot (2006), and Dragomir (2017) show that there is a significant relationship between learning organization and total quality management in both management theory and practice.

## ***Methods***

This research is qualitative research. This study focuses on knowledge sharing. The identification of this process is obtained by maps at the TQM implementation stage where the knowledge sharing process takes place. At this stage there will also be identified factors that encourage and hinder the process of knowledge sharing. Data and information that have been collected are then analyzed to determine the effectiveness of the knowledge sharing process in the implementation of QAS. Primary data was obtained from interviews with Semarang and Yogyakarta regional office (RO) officers.

## ***Findings and Discussion***

### ***Knowledge sharing in planning process***

Quality improvement activities are an integral part of annual planning. The annual planning of the RO is prepared based on the UT's Strategic Planning, the Operational Planning of UT, and the policies of the UT Leader as the implementation of the UT's Strategic Planning. At the beginning of the activity carried out socialization and discussion of activities between the head of RO and all RO officials. The Head of RO explained the annual work plan of RO and discussed the details of the operationalization of the plan with the coordinators and the head of the administrative division. In this process there is sharing of experience and knowledge in order to understand each activity.

In carrying out the work of the Head of Semarang and Yogyakarta RO applies the principle of open management, that is, every employee is given the freedom to share and express opinions both with the leader and with other employees. In carrying out the work if it requires new competencies or there are new methods, systems or equipment, training is usually conducted at both the ROs and at the UT Center. In carrying out work, systems and work procedures have been established in the quality assurance system document. The team develops work procedures that have not been established by following existing work systems and procedures. At a certain time, the RO will be audited internally by UT Center.

The advance findings show that the implementation of the principles of Goetsch and Davis in Semarang RO and Yogyakarta RO has created RO that is able to become a place for the sharing of knowledge between UPBJJ employees in the planning process.

### *The Role of IT*

Another important thing in the sharing process is the existence of reliable IT infrastructure support. According to the informant, the development of IT infrastructure to support work is greatly helped by the existence of clear work standards. Information systems are easier to compile if there are standard work standards. Work standards include workflows, file types, types of services, parties served, and implementers, as well as data authorizers. The development begins with taking an agreement on the activities to be compiled by the IT design, information flow agreement, development and manual design agreement. After the manual design was agreed upon, IT designers began to develop their applications. In the process of developing the manual design of electronic student card development this sharing process was very intense.

The sharing process will determine the success of application development. In the sharing process there is an exchange of experience and knowledge among Team members. According to the informant, the process of developing the electronic student ID card application can be carried out effectively because of clear instructions and standard operating procedures from the head of RO, the freedom of discussion, the same knowledge about electronic student ID card, the availability of work procedures on electronic student ID card. The inhibiting factors are the level of competency of human resources that is lacking in ICT, the IT competencies of Team members are not the same, and the level of adaptation to new technologies is not fast enough. After the electronic student ID card application was developed, training for the executors of electronic student ID card manufacturing was carried out.

In the development of the application program, it appears that there is a need for organizational factors so that the knowledge creation process can take place, namely; clear commands and standard operating procedures for head of RO, flexibility in discussion, similar knowledge, and work procedures. The new knowledge is then used to improve UT's working system.

### *Follow-up on internal audit results*

Each RO is audited internally and externally once every semester. An audit is carried out to ascertain whether the system, procedures, and targets that have been set have been carried out in accordance with the stipulated. Audit results are data and information about the gap between the standards of implementation. The auditor will give opinions in the form of suggestions for improvement. In providing suggestions for improvement, sharing of experiences and knowledge between auditors and the audited parties occurs. After the audit is done, RO has an obligation to follow up.

The process of knowledge sharing between auditors and auditees was less intensive. Knowledge sharing between leaders and between leaders and staff at RO is very intense. Sharing about operational planning was carried out between the coordinator and the Administrative Head of Subdivision. At the work team sharing level is carried out in the team. Sharing between employees is done at any time. Informal communication takes place intensely. Informal sharing is done at any time, generally using IT.

The process of sharing knowledge in Semarang and Yogyakarta RO took place effectively. Knowledge sharing results are used to improve processes, systems, and products in RO. Based on these findings Yogyakarta and Semarang RO have transformed into LO on the grounds that RO is able to provide a conducive climate and infrastructure for the learning process to take place. RO staff is able to produce knowledge through acquiring, sharing, using, and storing valuable knowledge.

The internal and external audit process is basically an error detection process in the form of finding a gap between standards and reality. The error detection process is then followed up with an error correction process in the form of developing recommendations. And by RO the recommendation was given a response. The next process is implementing a change design according to quality audit recommendations. The process of formulating improvement activities, planning improvements, and improvements involves good knowledge sharing between RO and auditor and between RO leaders and employees. Knowledge sharing in RO is an important component in continuous improvement in RO.

These findings indicate that UT's QAS has created regular audit systems and procedures every semester. This audit process is an error detection process. The findings were then discussed and discussed in the team and at RO. The process of discussion and efforts to find solutions to findings is carried out through a continuous sharing process. Thus a sustainable audit culture has created a sustainable culture of sharing as well. Sharing is the core of the LO, therefore the existence of continuous sharing is the basis for the formation of LO.

Previous research which stated that TQM and GCG became the driving factors for IT implementation, changes in organizational structure, formation of organizational culture, HR development. IT, organizational structure, organizational culture, and HR development together form UT into proven LO in this study. Knowledge sharing has become an integral part of UT's work system because it is driven by Simintas implementation. The findings in UT are in line with the findings of Lam Poon Chin, et al. (2008), Konidari and Abernot (2006), and Dragomir (2017) which show that there is a relationship between learning organization and total quality management in both management theory and practice.

### *Knowledge Sharing Factors and Obstacles*

#### *Driving factors*

In an interview with RO, information was obtained that knowledge sharing could take place effectively because of:

1. Transparency that will increase mutual trust and ultimately increase participation.
2. Trusts that are built to increase the sense of kinship between employees. Informal activities are enhanced to get to know each other better.
3. The consistency of actions and policies will increase participation. Consistency will reduce employees' hesitation in taking action.

4. Justice also plays a role in increasing knowledge sharing. Justice in assignment and performance assessment.
5. Open and transparent communication forms a working atmosphere of mutual trust.
6. The closeness of the personal relationship developed by Ka UPBJJ
7. Effective informal communication  
Sharing requires openness, mutual trust, and the availability of means of communication (especially IT). These three conditions already exist in RO.

#### *Obstacle factor*

1. Resistance to change, especially in some employees, especially employees "privileged."
2. The availability of time for sharing is narrow. The limited availability of time can cause the sharing process to stop, although sometimes it can still be overcome by using the media, but it is less effective.
3. The uneven competency level of HR causes imbalance in sharing.
4. The less ideal composition of the team is an obstacle in sharing.

Thus the opinion of Marquardt (2002), Mullins (2005), Cummings and Worley (2005) and Marquardt and Reynolds (1994) that factors that support knowledge sharing are flexible organizational structures, information systems, technology, organizational culture, human resources, and proven leadership at UT. Whereas the factors that inhibit knowledge sharing are bureaucracy, the climate of competition, control, poor communication, competency in human resources, strict hierarchy, and organizational size also proven in UT.

## ***Conclusions and Implications***

### *Conclusion*

The process of knowledge sharing in the implementation of QAS is carried out intensively in planning activities, product development, and in developing solutions to audit findings. The process of knowledge sharing between RO and auditors did not take place intensively, while knowledge sharing between RO employees and leaders took place intensively. QAS implementation at RO has encouraged the ongoing knowledge sharing in UT, thus RO is an LO. Factors that drive effective knowledge sharing are transparency, trust, consistency of actions and policies, fairness, open and transparent communication, close personal relationships, and effective informal communication. Whereas the factors that inhibit knowledge sharing are resistance to change, the limited availability of time for sharing, the uneven competency level of HR, and the slow adaptability of some team members to technology.

Knowledge sharing between auditors and RO is less effective because communication between them is not intense. The auditor did not "take the time" to share deeply with RO. Another thing that needs to be improved is the absence of monitoring of the follow-up of findings from the auditor, so that there is no knowledge sharing process at the program implementation level.

### *Implications*

This research reinforces the finding that TQM is an effective instrument in order to create a culture of sharing. The consistent implementation of TQM will result in a consistent culture of sharing. Consistent TQM implementation will encourage organizations to "organize themselves" in the form of determining measurable and transparent work standards and procedures, defining clear targets, participation of all employees, implementing ICT effectively, establishing culture to be audited, establishing a culture of dialogue in an effort discuss audit findings and formulate steps for improvement, and the need for effective leadership, as well as creating positive dynamics of the organization. This study found that TQM can be an effective bridge to create a culture of continuous knowledge creation and knowledge sharing in organizations.

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