Organizational Implementation of Educational Change: A Case of Malaysian Open & Distance Education

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Abstract: Nowadays, change management strategies and policies become increasingly important for all organizations including education. This is due to the current market competition and globalization that force organizations to consider "change" as an alternative solution to improve their quality and performance. Organizational implementation of a change process is essential to achieve desired goals and objectives. For educational organizations, especially Open and Distance Learning (ODL) institutions, management strategies and policies for implementing e-learning as an educational systemic change, are believed to be the key answer to improve the quality of teaching and learning processes. This paper is aimed at addressing the key question of "What are the management key strategies and policies for effective organizational implementation of systemic change in context of an ODL organization?" Based on the data analysis for this qualitative research, it was found that in a technology-based systemic change; planning, organizing, guiding and monitoring are the main strategic elements for the management in successful organizational implementation of the new learning technologies. "Organizational implementation" as one of the key components of systemic change management, is the main theme for this study. The results of in-depth analysis including emerged sub-themes and the sub-sub-themes are presented in this paper.
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1. Introduction

In the current market competition and globalization, change management strategies and policies become increasingly important for all organizations including education. This is due to the essential role of change management in being considered as a key part of the change implementation process to achieve organizational desired goals and objectives (Cao & McHugh, 2005; Robbins & Coulter, 2005; Mourshed et al., 2010).

The recent educational change from e-learning implementation in Open and Distance Learning (ODL) organizations have a major systemic implication that affects all the levels and aspects of the education system as a whole. Therefore, for the success of a technology-based education system to be an alternative solution to improve the quality of teaching and learning process, much more than just a minor organizational adjustment is needed (Fullan, 2010, 2011; Senge, 1999, 2006; Uys & Siverts, 2001). In other words, e-learning implementation in an educational organization has directed the higher education specially ODL institutions to the revolution in thinking about teaching and learning (Bates, 2000; Harris, 2007). Hence, the main part of this transformation is related to the management's effective strategies and policies in dealing with the new changes for maximum efficiency (Ghavifekr & Sufean, 2011). Accordingly, organizational implementation of the change process requires management multidisciplinary skills and knowledge from various aspects including technology integration, education system transformation, and organizational development and improvement (Nadler, 1993; Rogers, 1995; Senge, 2006; Tucker, 2011). In addition factors such as cooperation, communication, professional development, human and financial resources, and budgeting are also among the main components of the organizational implementation of the change management process. Hence understanding the interrelationships and interdependencies between the various parts of the education system (Bates, 2000) would help the management team to accomplish their important tasks regarding organisational implementation of systemic change.

Nevertheless, for successful organizational implementation of e-learning in an ODL institution, considering the necessary elements related to the technology such as selection, maintenance, development, implementation and technical tools including hardware, software and infrastructure is an essential task for the change management team. This is because in the context of ODL institutions, management strategies for organizational implementation of the technological change are believed to be the key solution to improve the quality of teaching and learning processes (Easterby-Smith et al., 2004). The other key elements in implementing e-

learning in an educational organization include time, financial support, administration support, networking, systems administration, and professional development (Menchaca et al., 2003). In addition consistent monitoring of the systemic change process, communicating and corresponding with the stakeholders in order to motivate them to assist in the new situation, are also among the required elements the change management team must consider in implementing systemic change.

Previous literature indicates that recent integration of e-learning in the education system has a major systemic implication which needs to be carefully planned and managed for greater effectiveness and efficiency (Coimbra Group of Universities in Europe, 2002; Mourshed et al., 2010; Richards et al., 2004; Rossiter, 2006; Uys, 2007; Uys & Siverts, 2001; Zellweger, 2006). Therefore, the current key challenge facing educational planners and management teams is related to their capability to identify appropriate strategies and policies to direct the change process. For effective organizational implementation of e-learning and other learning technologies the main prerequisites are clear vision, careful planning and strategic management (Ghavifekr & Sufean, 2010). These prerequisites are essential for the success of the systemic change management process.

For the Malaysian education system, the critical role of technology change is a foundation for competitive advantage of the ODL institutions. Eearlier research shows that due to the issues and challenges related to the use of learning technologies in Malaysian higher education today, directing and managing e-learning is a complex process which requires change management strategies and policies to deal with the new changes (Hashim, 2007; Poole et al., 2004; Rahimah, 1998; Raja Maznah, 2004). The essential role of change management strategies in organizational implementation of learning technologies in the Malaysian education system is a basis for competitive advantage of the ODL institutions in the country. Hence, it requires a shift from change management to strategic planning and strategic management for the change implementation (Raja Maznah, 2004).

The main purpose of this paper is to examine "organizational implementation" as one of the main components of systemic change management with the four management fundamental skills; planning, organizing, guiding, and monitoring (Cao & McHugh, 2005; Robbins & Coulter, 2005) in the context of a Malaysian ODL institution. More specifically this paper attempts to examine and analyze the dynamics and interactions involved in management strategies, policies and methods in order to deal with the implementation of e-learning system at the case open university. This study tries to address the question of "what are the management strategies and policies that can help them to direct organizational implementation of change process in line with the desired goals and objectives". The elaborations of the research objective and question are presenting in the following sub-sections of this paper.

2. Material and Methods

This study used a qualitative research methodology and involved a single-site in-depth case study that examined management strategies and policies as the result of organizational implementation for e-learning system in an open university in Malaysia which provided a unique case (Yin, 2003). Data were collected through individual interviews, field notes and document review. Purposeful sampling was used to identify participants for this study (Creswell, 2013). Participants included 15 top management and administrators, 5 faculty deans, and 5 directors and heads of the supporting centers and departments.

Interviews were conducted with three individual groups of top management, deans of the faculties, and directors and heads of the supporting centers and departments from various divisions of technology, planning, development, and instruction, who had a key role or position in decision making on the technological change initiatives as well as a depth of knowledge and involvement related to the systemic change process. Moreover all the participants had been employed at the open university since its establishment in 2000. The researchers had used standardized open-ended interview technique as the main source of data collection. One of the strengths of using this approach in this study was in reducing "interviewer bias" (Patton, 1990).

Field notes have been collected during 6 months of direct engagement in the case study by the research leader. Documents were defined as any written, electronic, or otherwise recorded material not prepared specifically for the researcher or for this research project (Lincoln & Guba, 1985; Merriam, 1998). Documentation consisted of vision and mission statements, strategic and resource allocation plans, the university's published Annual and Monthly Reports, newspaper articles, public records, and research conducted by the open university, self-study reports, accreditation documents, and other documents that helped paint a picture of the case study's e-learning system implementation strategies and policies .

All the materials including interviews and field notes were recorded, transcribed and analyzed using the open coding, axial coding and selective coding techniques. In order to organize and manage the data more systematically, the raw data were

analyzed using NVivo 8.3. Using computer software helped the researchers to find in-depth and detailed data on management key strategies and policies regarding organizational implementation of systemic change in the open university. In addition, the procedures for coding and categorizing organizational implementation as the main theme of this study were guided with the Ladder of Analytical Abstraction by Miles and Huberman (1994).

Reduction and analysis of the data were performed on an ongoing basis throughout the study, and main themes as well as subthemes and sub-sub-themes were derived from interviews (Merriam, 1998). Findings from this study were intended to present a portrait of how management dealt with the systemic change following implementation of the e-learning system as perceived by different groups at the open university.

To ensure validity and reliability, data were triangulated through different collection methods, member checks, and through the comparison of findings between methods (Miles & Huberman, 2001; Patton, 1990; Yin, 2003). The main advantage of triangulation or using different sources of evidence in case study design was to provide in-depth understanding of systemic change management strategies and policies as the main phenomenon of this study.

Every effort was made to present findings from the participants' perspectives by sharing their stories and words (Creswell, 2013). Interview summaries were sent to participants to ensure proper interpretation and context of information. Although perspectives belong to those who participated in the study, findings were categorized in an attempt to delineate organizational, group, and individual perceptions of the systemic change implementation. The results of the emerged main theme "Organizational Implementation" of e-learning system, and the sub-themes of *planning, organizing, guiding and monitoring* as the key management functions for the systemic change as well as the sub-sub-themes on management detailed strategies and policies regarding the change implementation are presented in the following sections.

3. Results

Strategies and Policies for Organizational Implementation of Systemic Change

Since establishment of the case open university in 2000, e-learning was the most influential factor for the management team to direct the organization in various aspects including education, technology and finance. Accordingly, implementation, improvement and enhancement of the e-learning system had been the main focus for the change management team in making any decisions and formulating any strategies and policies.

This study found that in the open university's context, the e-learning system was meant to be an enabler tool for the management team to align their key strategies to achieve the desired goal of "democratizing education". This specific image was the main reason for the university's governance to plan for the systemic change ahead, as well as to organize, guide and monitor the new alterations. Accordingly, the main objectives for the systemic change were: to meet higher education aspirations using flexible, accessible and affordable system; to provide lifelong learning opportunities; and to help the government in the democratization of education.

Based on the data analysis, the organizational implementation of the systemic change was a complex process for the open university that involved modification of its values, beliefs, and procedures. This is could be due to the characteristics of the new changes which referred to implementation and utilization of e-learning in the education system that affected the organization as a whole. Hence, encouraging the organizational members to participate in the implementation process was the key task for the change management team.

Figure 1 shows the overview of the main theme, sub-themes and sub-sub themes of this study which emerged from in-depth analysis on *organizational implementation* as one of the main components of systemic change. Planning, organizing, guiding and monitoring as the sub-themes of this study also emerged from the analysis. Results of the analysis, present management's strategies and policies to deal with implementation of the new educational systemic change as the sub-sub-themes as shown in Figure 2.

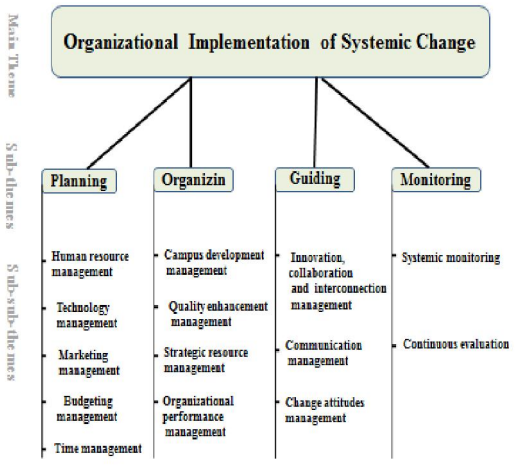

Figure 1. Management Strategies and Policies for Organizational Implementation of Systemic Change

The elaborations of the above figure are presented in the following sub-sections of this paper.

Planning

According to the data analysis, *planning* refers to the management strategic efforts in identifying the most appropriate strategies and policies for successful implementation of the new changes. In the case study open university, strategic planning for implementation of the new changes was decided by the *Academic Committee of Education* in a joint meeting of the change management team and the professional academic members in various fields. In the case university, the "change management team" included the top management group, deans of the faculties, as well as heads and directors of the centers and departments; all the planning and decisions regarding implementation of the new changes was based on their suggestions.

In-depth analysis shows that the purpose, goals, and values of the new systemic change was the main criteria to consider by the change management team in making appropriate strategies on planning organizational implementation. In this regard, preparing academic and non-academic members to accept the new changes that systemically affected every aspect and level of the organization was an important task for the change management team.

This study found that the main focus of the management in planning for organizational implementation of the systemic change was to achieve the goal of being a world class center of excellence in open- distance education (The Annual Report, 2010, Issue, 65). Accordingly, management strategies for planning the change implementation were regarding the need to be equipped by appropriate capacity to sustain instructional technologies and ICT-based activities. Based on the findings of this study, in the planning phase the change management team considered five main strategies as the key criteria for organizational implementation of e-learning system as follows:

- Human resource management
- Technology management
- Marketing management
- Budgeting management
- Time management

The elaboration of the thematic analysis on planning for organizational implementation for e-learning system is presented in the following sub-sections.

- *Human Resource Management*

In the case university, human resource management was the main strategy in planning for organizational implementation of the systemic change. In this study *human resource management* refers to the strategies, policies and approaches that management of the ODL institution considered in order to employ the relevant, capable, and skilled - work forces to run the organization more efficiently and effectively. Due to the requirement for integrating advanced technologies by all the organizational members, human resource management strategies were more focused on providing training programs for both academic and non-academic staff to enhance their ICT skills and knowledge. In addition, the practical programs for ICT technician personnel also helped them to upgrade their skills and experiences regarding e-learning system maintenance and services. Correspondingly, concentration on human resource management strategies for the purpose of producing skilled human capital was an important element in success of the systemic change implementation. In this regard, the open university's general manager for technology said:

"We are trying to arrange a series of training programs for everybody, for tutors, that will be in the Center of Tutor Management & Development, also for technicians and other staff that the training will be in the Center for Technology Integration. These training will involve various components, and one of them will be the ICT component, how to use the system and also how to maintain it and all that. That part we will do under these training"[PAH-I-1-61109-87-89].

- *Technology Management*

Because of the essential role of learning technologies in open and distance education, the ability to manage the best use of e-learning for students' advantage was a critical task that needed proper planning by the change management team. In this study *Technology Management* refers to the change management strategies and policies that allow the open university to manage its technological initiatives to develop competitive advantage. In this regard, all the disciplines, strategies, policies, methods and approaches in planning for organizational implementation of e-learning system called technology management. Hence the main criteria for technology management were to forecast and identify the possible technologies to be implemented in the university.

From data analysis, it was found that appropriate planning for implementation of the advanced technologies on one hand and setting the proper strategies and policies to maintain these technologies, on the other hand, made technology management a key task for the change management team. The importance of the advanced technology in the system of the open university has been mentioned by many interviewees repeatedly. One said:

"I believe the open university's e-learning and online learning system is the core business, and main focus is on the development of the relevant learning technologies that can enhance the adult learning and lifelong learning in a faster way…. Maintenance of the technology is another issue that we (management team) have to plan for it… we have to plan carefully, to prevent any obstacle.. On the other hand, we have to consider the value of certain technology for the organization" [PY-I-1-4909-219-221].

However, formation of a reasonable technology plan with the consideration of the status quo in terms of prioritizing of the organizational needs and requirements was the main element for the management in making their strategies and policies. Accordingly, the first step was to identify the most suitable technology for the open university which is able to upgrade the system to the better position and improvement, as well as to determine the needed resources in terms of educational, financial, human, and technical in various aspects. Estimating the expected cost benefit and time line with the relevant short and long term objectives that explain the implementation trail for the technology management plan, as well as continuous development of the e-learning system was the final key tasks in the planning organizational implementation.

In addition, presence of a technology profession among the top management group committee who also considered as a "technology leader" was essential to lead the process of technology implementation. Indeed, without top management commitment and support for the technology change plan, the implementation process could not reach success. This study found that the technology plan helped to define comprehensive change management strategies for the quality enhancement and system improvement. These improvements included system efficiency, manpower reduction, and quality and speed of the services.

- *Budgeting Management*

From in-depth analysis, budgeting management was the other emerged strategy in management planning for organizational implementation of the systemic change. In this study *budgeting management* refers to all strategic planning and decision making regarding the university's financial matters to be approved by the specific unit from top management group called the "Corporate Planning Unit" (CPU). The main responsibility of this unit was to make an appropriate guideline of the budgeting plan for the whole university. This guideline is reviewed every semester by the top management team and is based on the budget that the university needed to maintain its activities for full integration of advanced technologies in the system. Every year, new budgeting policies will be addressed by the president of the university in a joint meeting with the other members of the management group as vice presidents, deans of the faculties and the heads of various centers and departments. This finding was supported by the top management group. One group member said:

"In the open university, we have a center called CPU (Corporate Planning Unit) that is responsible for planning, preparing, managing and directing the whole university's budget. The unit will give guideline for budget annually and every section includes centers, departments and faculties need to prepare their budget based on this guideline…" [PM-I-2-8909-191-203].

- *Marketing Management*

Due to the current globalization, marketing management was a critical task for the open university's change management team. In this study *marketing management* refers to the management of various strategies and policies to cultivate the university's designated market based upon the organizational goals and objective as well as technology mapping to the current business and market needs. These strategies are focused on the practical application of marketing techniques and resources that would address the needs and requirements of the ODL institution as a set of projects for its development.

The senior vice-president of the open university also with emphasis on the importance of the marketing management strategies regarding the institutional business goals, revealed that increasing the student enrolment in the university was the main goal for planning in marketing management. He affirmed:

"As a private higher education institution, we must generate enough income to sustain our operation. Of course, we want more student enroll our university… we focus a lot on marketing. We have to market our program, trying to reach as many learners as possible." [PM-I-2-8909-21-27].

- *Time Management*

In this study *time management* refers to the necessary range of skills and practices used by the change management team to achieve the specific organizational goals and objectives in a sufficient and proper time. Because of the dynamic and complex characteristic of the new changes, time management has considered as a time framework for each activity involved in the change process. The management skills regarding time management included a broad range of actions such as planning, organizing, guiding, and monitoring the change activities in a specific time

guideline for each activity. In the case university, setting short and long term plans for the change objectives was an example for time management activities. This finding was supported by the senior vice-president. He commented:

"in terms of change objectives from time management perspectives, there are short and long term plans to achieve the goals, nevertheless management strategies for each of these plans are different, and dependent on the time and situation"[PM-I-1-20809-185-187].

Organizing

After planning for organizational implementation of the new changes, there was a need for management strategies and policies for organizing the process of the planned change. In this study *organizing* refers to the management activities in order to prepare and arrange appropriate resources for implementation of the systemic change. This was in order to increase the effectiveness and efficiency of the change implementation procedures in the open university. From the in-depth analysis it was revealed that in an ODL institution, organizing organizational implementation of the systemic change management included four main strategies as follows:

- Campus development management
- Quality enhancement management
- Strategic resource management
- Organizational performance management

The elaboration of the emerged sub-sub themes are presented in the following sub-sections.

- *Campus Development Management*

For the change management team, the initial strategy in organizing implementation of systemic change was to provide necessary facilities and services to prepare the environment for adopting the new technological changes. In this study campus *development management* was considered as an engine to achieve the university's business goals and objectives regarding. One of these objectives was to develop more learning centers all over the country. This followed from the management plan for attracting more adult learners to choose the university as their first option for continuing higher education. To achieve this critical objective, the management had to concentrate more on the developmental and physical infrastructural strategies. Correspondingly, the result of such strategies was to organize a division called "Learner Management and Campus Development" under direct supervision of the top management. Developing more learning centers in many parts of the country was the main strategy that this division adopted to provide more opportunities for the adult learners to obtain their tertiary education via open and flexible concepts. With this policy the university's leaders aimed at attracting more learners including those from remote areas (Monthly Report Issue 65, 2010, p. 3). The main task for the center was to identify properties all over the country suitable to be learning centers for the university. The management's expectation was that these learning centers will provide a proactive teaching-learning environment. Correspondingly their efforts were to ensure that the learning centers are well equipped with the infrastructure and advanced learning facilities such as computer laboratories and digital libraries. The following quotation by the university's vice president and head of the division for learner management and campus development are given to support these findings:

"In order to motivate students to enroll the university, we identify potential property all over the country even in the remote area and try to build learning center everywhere. Besides, developing needed facilities to attract more learners from domestic and international markets…this is in line with our marketing policies [Monthly Report, issue59, May2009, p.13].

- *Quality Enhancement*

Quality enhancement at all levels and aspects of the open university was the main intention of the change management team in organizing organizational implementation of e-learning system. In this study *quality enhancement* refers to the change management strategies and policies regarding continuous improvement of the education system quality within a dynamic ICT-based environment. According to the data analysis, continuous development of ICT applications and e-learning solutions was the key focus of management in their quality enhancement strategies and policies. In addition, continuous attempt to provide and enhance e-learning opportunities to achieve quality education as well as providing quality training programs, quality entry system, and quality assessment system (the Facilitators' Handbook, 2010) was among these strategies. Establishment of the "Institute for Quality, Research, and Innovation (IQRI)" was in line with the open university's strategies and policies for quality enhancement. In this regard, constant assessment of the organizational needs was the critical strategy to achieve quality enhancement. This finding was supported by the interviewees from various groups. One said:

"...for the purpose of quality, recently we have established an institute for quality research and innovation, in order to motivate the members in quality enhancement activities, they have this quality awards coming in, for example recently they have call in 8 staff to come out with projects new ideas for the university, and they have

submitted their projects' proposals based on quality enhancement" [DH-I-1-9909-218-220]

- *Strategic Resource Management*

In the ODL institution, identifying the most appropriate sources that could help to provide sufficient and efficient facilities to the organization was an essential task for the systemic change management team. In this study, *strategic resource management* refers to the change management strategies and policies in organizing facilities for the suitable resources from inside and outside the university in terms of technology, learning materials, and human capital. In this regard, management strategies were providing sufficient ICT services that involved variety of issues include software, hardware, equipment, and the technical personnel.

In order to provide quality technology resources, all these issues needed to be carefully planned and managed. In other words, when considering the outsourcing of IT services, management needed to be very clear about the purchases as well as their expectations from the services in terms of delivery, usability, scalability and friendliness. The data analysis found that METEOR which stands for "Multimedia Enhancement Operation" is the main out-sourcing supplier of e-learning solution and technology for the open university. The main task of this supplier that incorporated eleven public universities was to develop the multimedia technology application for the teaching and learning sector. This is in line with the university's main objective of "achieving quality learning experience through enhancement of technology" (The official document on METEOR Technology, 2010, p. 1). The goal of technology sourcing, servicing, and the delivery cost needs to be clearly defined and planned. The following quotation by the group of management from METEOR supplier is given to explain more on the technology sourcing management of the open university and its responsibilities:

"METEOR, is the parent company, included Meteor Technology and the consultancy, Meteor Docs, the printing arm, Meteor Learning…So, we are the IT arm and service providers for the whole group…. Our main focus is to provide: IT services, E-Learning materials and Learning Management System (LMS)" [MGM-I-1-281009-9-11 & 17-21].

In addition, in terms of strategic resource for human capital, the university relies more on the professional Subject Matter Experts (SME) to develop the learning materials in both format of e-content and printed modules. Accordingly, producing quality learning materials for both printed and e-content modules was the main task for the change management team in organizing the implementation of systemic change. Hence, the key task was to appoint appropriate subject matter experts from inside and outside the university. Apart from the professional members of the university, inviting some SMEs from public universities to help in developing quality learning materials was part of this task. These activities were organized under the "Center for Instructional Design & Technology" (CIDT). This finding was supported by the director of the center for instructional design and technology. She stated:

"We produce learning materials, and also we provide some services…. there are two things here, one is learning materials; the other thing is services, for the university basically. …For the learning we have the core learning materials that is our print modules which is prepared by our instructional designers, graphic designers, and desktop publishers…after modules prepared by our unit we will pass them to the editorial unit for editing the materials" [DH-I-1-9909-11-17].

- *Organizational Performance Management*

In the systemic change process, one of the main goals of the management team was to improve the entire organizational performance. From the analysis, *organizational performance management* refers to the strategies and policies which ensure that the institutional goals and objectives regarding quality performance are consistently being met in an effective and efficient approach. In this regard, organizational performance management was focused on performance of the organization as a whole which included all the departments, faculties, and centers as well as the processes and services. The results of this study show that for the change management team the key activity in enhancing organizational performance was to set the goals, monitor the progress of the change process toward the goals in the entire system, and make amendments to achieve those goals more effectively and efficiently.

As pointed out by the president of the ODL institution the main goal of management was to help the organizational members including academic and non-academic staff, tutors and the students to open their minds and seek to enhance their knowledge and skills in order to have better prospects. He believed that while formulating goals and objectives for the new changes helped the management to know the exact way to direct systemic change, monitoring and observing the organizational performance enabled the authorities to identify the inherent issues and obstacles on time before they can harm the change process success. The president of the open university commented:

"…we should guide and inspire the members to perform their best … we do it by keep on

monitoring their performances, we will continually evaluate the whole system, in the same time, we help for the consistence improvement of the quality" [Evidence cited from the Monthly Report, issue 61, July 2010, p.2].

Guiding

This study found that in order to achieve the planned goal and objectives, after planning and organizing the organizational implementation of the systemic change, there was a need for management strategies to guide and direct the process continuously. From the data analysis, *guiding* refers to the process that the change management team considered as initiating, directing and leading the performance of the organizational members in order to enhance quality. Apart from these, other main activities in guiding organizational implementation of the systemic change included motivating, supervising, and training the members in achieving the organizational goals. The sub-sub-themes of guiding organizational implementation that emerged from in-depth analysis are included three main strategies as follows:

- Innovation, collaboration & interconnection management
- Communication management
- Change attitudes management

The ensuing sub-sections elaborate on the sub-themes and sub-sub-themes of guiding organizational implementation.

- *Innovation, Collaboration, and Interconnection Management*

The analysis shows that successful implementation of systemic change needs appreciation, and contribution from all the organizational members. Introducing the change objectives and benefits, along with promoting an appropriate culture of change among the members can be helpful to motivate them in contributing to the new change implementation. This could be because adoption of learning technologies required a new culture that can promote the new transformation of the system in terms of the teaching and learning processes. Due to the systemic nature of the open university, the most suitable culture was the one that motivated the organizational members to have more innovative, collaborative and cooperative interaction in line with the change implementation. Such a culture helped the organizational members not only to understand the rationale for the comprehensive technology integration in the system. The change management team emphasized that the new culture of innovation, collaboration and interconnection helped them to implement the e-learning system successfully with less resistance. One stated:

"I think the organizational environment is very important, if there is not the culture of collaboration and interconnection, the system cannot work probably...culture of collaboration, and team working, innovation and innovative idea are the key elements in the change process…. if there is not any innovative idea change cannot be happen…. [DH-I-1-9909-319-320].

- *Communication Management*

This study found that in a situation of systemic change such as e-learning implementation, the key practice for the success of the change process was regular communication between the management and organizational members. This could be due to the complex nature of the technology-based change to be implemented by team-working efforts. In this study, *communication management* refers to the management's strategies and policies that aimed at building commitment toward the organizational implementation of the systemic change. Therefore, it was considered as a critical activity for the change management team to focus on communication procedures that offered essential information on available support and accessible resources to the organizational members. This was to ensure utmost acceptance of the new changes, with least resistance from the members. Data analysis shows that as much as the organizational members understood the objectives of the change and accepted its implementation, effective communication with the management ensured the less negative impact on their performances. This was because through planned communication, organizational members had the opportunities to build their commitment to the new changes. It was agreed by the Deans of the faculties that discussion on the organizational problems in the sharing meeting with the top management was an effective approach to overcome the problems related to staff motivation in accepting the new changes in the faculties. The following quotation is given to support this fact:

"The leadership is very important in communication with the members, …at least twice in every semester all the faculties' member will meet with the senior vice president .We tell him what we need … if there is any major change he would inform us in the meeting … this is sort of motivation from the top management to staff to accept the changes" [DW-I-1-28809-460-462].

However, frequent and continued communication between the change management team and the organizational members was the best approach to deal with the problem of resistance to change. This study found that the management explanation about the reason for the new change as

well as its goals and objectives on one hand, and to hear the views and opinions of the members about the new changes on the other hand, were among the criteria for the communication management.

- *Change Attitudes Management*

The analysis shows that positive reaction and attitude of organizational members toward change was one of the key factors in successful implementation of the systemic change. Understanding these attitudes by the change management team was an effective element to overcome the problems related to resistance to the change. It also prevented management from over reacting to the members' behavior over the new adjustment. Data analysis shows found that formation of the members' attitudes toward organizational change mostly happened when the employees were first exposed to the early information about the change process. In this stage first belief of organizational members about the change had formed. Hence, management efforts in answering the questions regarding "why" the new changes are needed and "how" implementation of the new changes will take place resulted in positive attitudes of the organizational members towards the change.

" some faculties adapt change very fast, some faculty say no, we need more time for the changes, so I think change has different concept for different people" [DW-I-1-28809-333-335].

In-depth analysis shows that in the process of implementing the new system-wide changes, facing with various attitudes from the organizational members were a normal fact which dealing with these attitudes in a more understanding and supportive manner was one of the key tasks for the change management team. The other task was considering enough time for the members to know more about the new changes. In addition, "age" was one of the main criteria for attitude of the organizational members towards the new changes. Because of the dynamic characteristic of the systemic change in the open university, young staff were more interested in the new technological innovations.

"For change and technology, I see they [the younger staff] excited over it. Because these young people are very sensitive to the technology. ...they are very interested and talented people" [DH-I-1-9909-297-298].

Monitoring

This study found that in the systemic change process, monitoring and controlling the organizational implementation helped management to identify inherent problems in its initial stages. The data analysis shows that *monitoring* refers to the management's strategies and policies to undertake systematic observation of the e-learning system application. In this regard identifying the unwanted issues during the implementation process helped the change management in formulating effective and efficient strategies to overcome the problems. In-depth analysis indicates that in organizational implementation of the e-learning system, two main strategies were involved in the monitoring process. These strategies that present as the emerged sub-sub-themes for monitoring organizational implementation are as follow:

- Systemic monitoring
- Continuous evaluating

The following sub-sections cover the explanation of the sub-themes and the sub-sub-themes for monitoring organizational implementation.

- *Systemic Monitoring*

In this study *systemic monitoring* refers to the management specific strategies and policies to observe and review all the aspect and levels of the system wide change regarding the e-learning implementation process. Due to the complex characteristics of such monitoring, it played a key role in improving organizational performance effectiveness and efficiency. This study found that management approach for systemic monitoring helped them to find out if the planned strategies and policies were working appropriately and based on the formulated vision and mission statement. Moreover, systemic monitoring was an influential task to keep the change implementation process on the right track to enable management to identify any mistakes or weaknesses before it could affect the organizational implementation. As pointed out by the top management interviewees, the systemic approach of the change management team for monitoring evaluation of the organizational implementation enabled them to examine the sufficiency and usefulness of the available various resources which the university uses for its operation in terms of teaching and learning, technology tools and services and human resource. In addition, the quality systemic monitoring helped management to achieve a sustainable educational system that produced a quality teaching and learning environment. The following quotation by the senior vice president of the open university supports these findings. He said:

"Quality is essential for sustainability, and the open university strives to produce quality organization in various aspects especially in teaching-learning…… to archive quality graduates, continuous monitoring and controlling the teaching and learning process, helped us to identify the problems before [it] is too late!" [PM-I-2-8909-247-249].

Moreover this study found that systemic approach of the management for monitoring the

organizational implementation had helped them to identify that if the entire annual budget had been spent in the planned areas or else. The interviewees emphasized the critical role of budgeting evaluation and commented that the whole university including all faculties, departments, centers and divisions had to spend based on the annual budget plans.

- *Continuous Evaluating*

The other management strategy in monitoring organizational implementation of systemic change was continuous evaluation of the whole system. In this study *continuous evaluation* refers to the management activities that the situation of the organization before and after implementation of the new changes had been compared in terms of system development and improvement. Based on the analysis, to achieve efficient information to do such a comparison, management needed to do continuous formative and summative evaluation. Formative evaluation has been conducted during the process of systemic change when the functioning of the whole system was evaluated with the purpose of improving the strategies, policies and methods of the organizational implementation. Accordingly, summative evaluation was performed after the organizational implementation of the planned change and the purpose was to provide information on the efficiency and the effectiveness of the new changes on the teaching and learning outcomes. As expressed by the top management interviewees the strategies and policies of the management for continuous evaluation was more focused on three elements of efficiency, effectiveness, and impact of the new technological changes on the organizational implementation.

" ... in order to find out about our system working properly we need to evaluate more often…the importance of continuous evaluation is to determine the efficiency, effectiveness and impact of the change on students, tutors, and so on" [DH-I-2-241109-50-3].

4. Conclusion

Implementation and utilization of e-learning system, in the context of the Malaysian open and distance learning institution, was the main reason for adopting systemic change. In this regard, systemic change was considered as a key element for the educational system improvement which was associated with enhanced organizational performances. This study shows that in managing the process of change implementation in an organization, the first step is formulating an effective and efficient strategic plan to direct the change process properly. In case of educational systemic change, specifically at Open and Distance Learning (ODL) institutions, management strategic planning is considered as the key prerequisite for systemic change regarding the implementation of the e-learning system. In this regard, effective strategic planning should be able to include main elements and to address the key issues relating to technology implementation in the entire system. These issues include the process of systemic change that emerges from management's key functions of planning, organizing, guiding, and monitoring.

This study on organizational implementation of e-learning as a systemic change has proved valuable for reminding us that for the success of the change process, there is a need for prioritizing of the organization's appropriate needs and requirements through strategic planning. As examined at the case open university in Malaysia, the critical factors in organizational implementation of e-learning system include:

(a) ***Planning appropriate strategies*** for the most probable use of advanced technologies in order to achieve the goal of quality teaching - learning environment. Hence strategic planning needs to be considered as the management key strategy to lead the support for the systemic change.

(b) ***Organizing the planned strategies*** for the determination of the technology integration as a whole system including all the aspects and levels of the organization. Moreover, the other elements that need to be considered in the systemic integration of e-learning in an education system include the organization itself and the learners. Through the organizing process, the management team would be able to identify the needed resources and assets for implementing the planned change.

(c) **G*uiding the organizational members and procedures*** in the critical process of change implementation. This is to ensure the organizational consistency and approaches to integrate learning technologies in the education system. In this regard, the country's national education vision could be considered as a guideline for the future progress of the institution and also to enable the change management team to steer the university toward future growth and development. On the other hand it could be an objective estimate of expected benefits in applying the strategic plan for the technology. These benefits consist of cost, time, and human capital.

(d) ***Monitoring organizational performance*** for the continuous evaluation of the organizational activities and the system's performance. Because technology implementation will affect all the levels and aspects of the system as a whole, hence regular upgrading of the initial strategic planning is a necessary task for the systemic change management team.

However, from these particular aspects of organizational implementation, the leaders and top management of the open university had set the desired

goals and objectives to meet the country's higher education aspirations. These aspirations include using flexible, accessible and affordable systems, providing lifelong learning opportunities for the working-adult learners, and to helping the government in democratization of education. The researcher hopes that general findings of this study on organizational implementation of systemic change from e-learning innovation in a Malaysian open university could be transferable to the contexts of further technology-based changes in other open- distance universities.

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