

Ensuring participatory based decision-making practice in Higher Education through E-management: A faculty initiative

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Abstract: - One of the challenges faced by any organization is ensuring acceptable and reliable decision making processes. Though many organizations have developed their own approaches to address these issues not many have used technology to ensure effective participatory based decision making. This paper argues for and presents a model that incorporates reliable participatory based decision making practices and quality management indicators through strategic use of technology. The e-management system is an initiative of a faculty in a higher institution of learning. The paper describes and assesses a model called QuESt (Quality E-management System). QuESt integrates web-based technologies into an interconnected system to enable decision making by all stakeholders at multi levels of responsibility. Discussion is first focused on the bureaucracy and participatory models of decision making, then moves on to the research context, description of QuESt and discussion of the features and functions of the system. The paper concludes with an assessment of the potentialities of the system in taking an organisation's internal and external processes to the next level – using technology to ensure evidence based decision making, to interconnect staff roles and responsibilities and to use feedback to take appropriate action.

Key-words: - Participatory based decision making; E-management; accountability; efficiency, internal processes

1. Introduction

Decision-making and its role in organizations can be viewed in a number of ways. Kreitner (1999) believes good management can be defined in terms of good coordination of an organization's employees. Mullins (2000), Moorhead and Griffin (2000) posit that decision-making is one of the first and a crucial step in management. Criteria of decision and its nature vary in terms of kinds and types. For instance, the theory of bureaucracy proposed by Weber (1947) is widely criticized but replacement of the model has yet to be offered. Scholars and practitioners often use the term 'red tapeism' to strongly criticize Weber's model. While the scientific management model proposed by Taylor (1917) stresses the need for employees' involvement in the decision making process, the model is actually similar to the bureaucracy model. Of late, two new approaches – the universal and the participatory based management models are being advocated by many scholars (Mullins, 2000; Miller, 1995; Weaver, 1974). Decision-making, monitoring and controlling, regulatory approach and governance are the common

factors of all these models. However, the fact remains that the informal approaches and actions of those in management are vital in achieving organizational goals, aims and objectives. As such 'accountability' is a major concern in the management process and this is often lacking in participatory approaches resulting in its replacement with the 'bureaucracy model' in actual practice. Yet many countries practicing the bureaucracy model of management failed to ensure a 'management of accountability' because of corruption, lack of inter departmental coordination and weak organizational culture. On the other hand, many other countries adopting a bureaucracy model subsidized by different kinds of participatory tools with a decent level of organizational, cultural and national tradition enjoy greater success (Alam, 2003).

1.1 The participatory model of decision making

Proponents of the participatory model argue that the real implementers of a decision are workers and various levels of employees; as such the participatory model not only facilitate in the implementation of decisions but also help in making communication among those involved in the process easier. Since the criteria of participation processes and their schemata have evolved out of historical social practices, interpretation of social events is guided and constrained by the prevailing rationality which itself reflects the dominant constellation of power. Even within the model of bureaucracy, there remains still some space for participation. Currently, a number of tools are used to ensure participation in decision making (consultation, delegation, meeting and committees) and the participation process in decision-making enjoys many advantages. They are 'greater pool of knowledge', 'different perspectives', 'greater comprehension' 'increased acceptance and motivation', 'training ground' and 'empowerment'. It is important to note that there is also an equally significant number of disadvantages in making decisions through the participation process. The disadvantages are, 'lack of accountability'(Handy, 1993, Kreitner, 1999), 'social pressure' (Kreitner, 1999), 'domination by a vocal few'(Morgan, 1986), 'goal displacement' (Handy, 1983), 'groupthink', (Miller, 1995) among others. In some instances, it has been noted that the participation approach in decision making ensure ostensible democratizing that results in a decision that is detrimental to the organization (Alam, 2003).

2. Conceptual Framework

Fullan (1991) theorised that decision-making is the process of identifying and choosing alternative courses of action in a manner appropriate to the demand of the situation. The act of choosing implies that alternative courses of action must be weighed and weeded by sharing. As such there is a very strong relationship between decision-making and participation.

Participation can be defined as a kind of considerable freedom and considerable power of practice (Weaver, 1974). Participation in decision making is advantageous as there is greater pool of knowledge. A group can take much more information and experience to bear on a decision or problem than can an individual acting alone. So the participation of

lecturers in decision making to a certain extent will help faculty management achieve the institution's aims.

In addition, individuals with varied experiences and interests help the group see decision situations and problems from different angles (Boot and Reynolds, 1993). Those who personally experience the give-and-take in group discussion about alternative courses of action tend to understand the rationale behind the final decision (Kreitner, 1999). Those who play an active role in group decision-making and problem solving tend to view the outcomes as 'ours' rather 'theirs'" (ibid, p234). This in turn motivates the participants so it helps the implementation of decision taken (Fullan, 1991, Warwick, Robert and Robert 1995).

As mentioned before, in practice, there exist some issues of participation in decision-making. However if these issues are addressed, participation in decision-making can be maximized (Weaver 1974, Thomas, Kelleher and Mc Carthy, 1987).

3. Research Context- QuEST

In this age of innovations in information technology and well-developed communication systems across cultures and landscapes, the world is becoming the centre for the sharing and exchange of knowledge and excellence in scholarship and in values. E-learning, E-governance, E-management, E-sale and Sale management are new concepts increasingly gaining acceptance. Information technology helps us to collect, synthesise and analyse a huge amount of open-ended and close ended data while maintaining a high level of ethical practice as well as ensuring confidentiality. Further works on these data help to introduce a research environment and culture to facilitate the running of organisations.

Researchers in this team are both academics and practitioners of management in a higher institution of learning. Working alongside a team of professional computer programmers they designed an E-management system named 'QuEST' (Quality E-management System) in order to support the management activities of a faculty in a Malaysian University. The E-management system is designed to manage various Macro and Micro activities efficiently. The Macro aspect include Decision-making and planning, Strategic management and policy, Controlling & evaluating and Governance and

regulatory control. On the other hand the Micro involves staffing, financing, curricula design process, instructional materials and methods as well as other daily activities and responsibilities.

Within the scope of this paper, we aim to focus the discussion on the important role of this system in ensuring a scientific participatory approach in decision-making while addressing the major constraints faced by current models using the participatory approach. The results and discussion section of this paper aims to address the question of how a faculty can overcome barriers that are normally experienced when organisations use the participatory approach in making decisions. The sub-questions addressed are as follows:

- How does QuEst ensure accountability in the decision-making and management process?
- How does QuEst manage activities that are currently time-consuming to ensure participatory based decision making?
- How does QuEst ensure bias-free decision (avoiding grouping and lobbying)?
- How does QuEst address negative aspects of participation in decision-making?
- How does QuEst identify activities that are the root cause of problems/issues?
- What is the statistical parameter used in this system (QuEst) to identify or analyse correlated factors?
- How does QuEst address ethical and confidentiality issues?

4. Results and discussion

What is QuEST?

As mentioned in the previous section, the Quality E-Management System (QuEST) was developed as a project to incorporate participatory decision making and to ensure greater efficiency in the management of a faculty in a university. It is a “one-stop centre” that connects, links and monitors important decision making processes. It is a unique platform for administrators to monitor internal and external processes, for academics to participate in group decision making and to provide feedback to management and for support staff to play their role and show their potential. QuEST is also an important element in maintaining good academic calendar. Included in the system are teaching and research input, record of student supervision and projection of

staff strength, among other things. As discussed in the previous section, not included are some activities such as budgeting, promotion and other similar aspects of management that cannot be made public.

Table 1 shows the flow-chart that is developed as a basis for the system design and Table 2 shows the data flow of the system.

Table 1

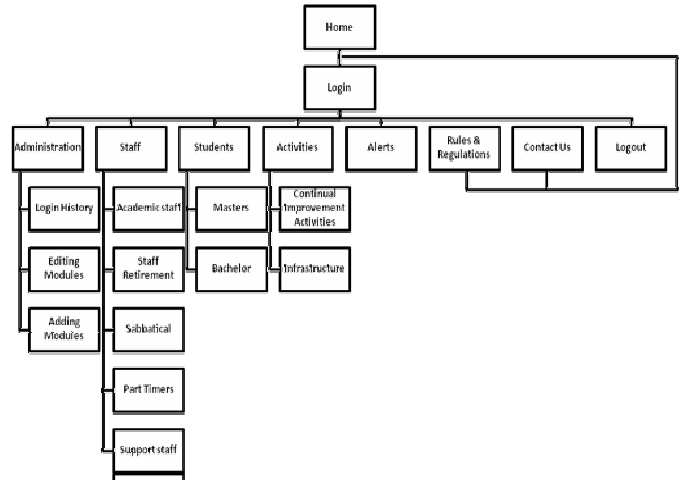
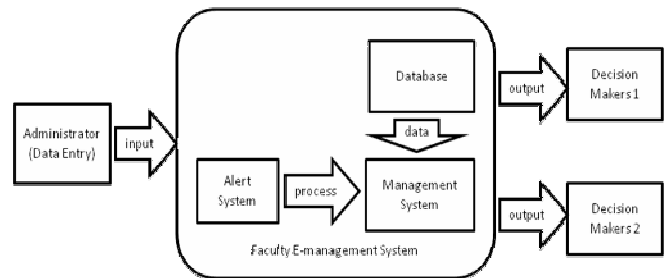


Table 2



4.1 System Design

Using the information identified and categorized as in Table 1, the architecture used to adopt the framework in the design phase is based on the distributed system model. This underlying IT infrastructure easily permits connecting services to organizational information from a variety of sources. This application is much faster and less expensive than previous forms of development and permits the activities to be highly responsive. There are two steps to the design of the system. The first step is the

identification of information needed to provide the database. The second step is testing the design to detect inconsistencies that need to be corrected. This is to ensure information accessed by the users is acceptable.

4.2 System generation

First the resources are selected and they include all key internal processes of the faculty. All these processes and the metrics required of each process are clearly presented for viewing. Detailed descriptions of all capabilities of the system are defined and a description is provided as to what the system should not do.

Technical specifications are examined to ensure compatibility between program used and resources. As the system is parked in a Web Server, complex tasks such as database communication were carried out.

The final stage is the testing period to ensure that the indicators provided by the system are reliable.

4.3 System implementation

Basically this includes regular maintenance to update or add new entries. A reasonably affordable budget has been allocated for this purpose. As this initiative is project based, the team will continually assess new technologies as they become available.

4.4 Significant features and specific functions of the system (QuEst)

- How does QuEst ensure accountability in the decision-making and management process?

Every action taken is recorded. Data is kept in the system for external and internal audit and the data is easily accessed and retrieved (see Fig.1). As discussed on page 2, accountability is an issue often faced in participatory decision making. This model connects role responsibilities and decision making. Different levels of management are able to identify and monitor actions taken. This leads to possibilities of proactive approaches being taken in the decision making process. Through the system, every action and inaction can be traced to the person responsible.

Fig.1

Reports (Check On Monitoring Activities)

No	Name	Module	Action	Date/Time
1	M.M.Arif	Viewing login history	Viewing	18-11-2009 07:43:44
2	M.M.Arif	Viewing alerts page	Viewing	18-11-2009 07:40:44
3	Hamizah	Viewing Home page	Viewing	18-11-2009 07:40:07
4	Arif	Viewing alerts page	Viewing	18-11-2009 07:39:54
5	Kugan	Viewing under observed undergrade student page	Viewing	18-11-2009 07:26:15
6	Kugan	Viewing undergrade student profile page	Viewing	18-11-2009 06:29:12

- How does QuEst manage activities that are currently time-consuming to ensure participatory based decision making?

The system is designed to incorporate all important processes in the faculty. Data is updated on a daily basis. Deadlines and three levels of alert are provided. Decision made by one staff member can be monitored by the staff /head of department in charge. To address possible non-compliance (eg not meeting deadlines), the alert goes to all those responsible for taking action as well as for monitoring and ensuring that action has been taken (see Fig.2)

Fig.2

Important Deadlines

Select :

No	Alert Id	Header	Priority	Deadline Date & Time	Posted Date & Time		
1	2	Faculty Meeting	High	30-10-2009 15:23:23	24-10-2009 15:24:45	More...	Edit
2	1	Vetting session	Normal	23-10-2009 07:46:51	22-10-2009 07:47:10	More...	Edit

- How does QuEst ensure bias-free decision (avoiding grouping and lobbying)?

The QuEST model emphasizes both the scientific and social contributions to the decision making process. While on the one hand, all decisions are evidence-based since they are data driven, on the other individual insights are made available for testing and use by the organization as a whole (see table 1 “bright ideas”). While activities like reports on student progress, taking timely remedial action on students who are underachieving, making payments to suppliers accordingly are documented, for certain actions and decisions, individuals can choose to remain anonymous. In this way, where decisions on sensitive and controversial matters are concerned, staff can contribute decisions without fear of being reprimanded or otherwise.

- How does QuEST address negative aspects of participation in decision-making?

This project, through the system, takes a proactive approach to knowledge contribution. It has a built in mechanism for structuring and updating contributions. Efficiency in management can only be achieved if specific roles are assigned. The system includes roles assigned based on validation of database content, monitoring and support as well as coaching of staff. As such negative aspects such as social pressure, groupthink, domination by a vocal few are minimized.

- How does QuEST identify activities that are the root cause of problems/issues?

As the system stores and records all activities, the root cause of problems can be easily identified – at the click of a button. This is normally time consuming through the traditional paper based system. The technology behind the system enables tracking of activities and identification through user logins. This enables the system administrator to trace the raw input. However, careful steps are taken in deciding who manages the system. The system administrator is someone whose job specifications are mainly technical and is not in any way connected to the running of the faculty.

- What is the statistical parameter used in this system (QuEST) to identify or analyse correlated factors?

As in any good e- management system, this system is built to provide accurate measurements for the indicators required for an effective management decision – as we cant manage what cant be measured. The most compatible, easily available and inexpensive data analyzing program is used to generate statistics for this system.

- How does QuEST address ethical and confidentiality issues?

Although this system provides easy access to databases and important documents, stresses openness and right to information, the faculty has in place internal standards and procedures to ensure that confidentiality is not breached. Staff members have been trained to avoid disclosure risk. To ensure that data in their possession are subject to appropriate handling, the faculty instituted a continual process of reviewing and enhancing the training of these staff members.

5. Conclusions

E-management in the context of this study has been shown to facilitate participatory decision making in an organization while ensuring tight quality control and monitoring procedures. Ethical and confidentiality issues are addressed as well. QuEST has the potential to take the organization’s, in this case the faculty’s, internal as well as external processes to the next level by putting into place electronic record management while maintaining flexibility. Using technology, the faculty can ensure reliable participatory decision making through the enforcement of policy guidelines. Most of all, the model has internal consistency as it integrates good management practices with dependable technology.

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