Developing Organizations through Developing

Individuals: Malaysian Case Study

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Abstract

Research has highlighted that organizational development (OD) is a complex issue as it requires the input of employees at all the levels of an organization. However, to obtain this is a challenge for organizations as the basic training and education offered by the organizations and experiences of the individuals on their own and other factors such as fear and ignorance prevent such actions. For this purpose, other elements are also required. This research aims to identify and explain the usage of the elements that can encourage employees to contribute inputs necessary for OD. To achieve this aim, this research developed a conceptual framework based on the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse. To illustrate the application of the framework in a real life setting a case study approach that involved a large manufacturing organization in Malaysia was employed. From this research it was concluded that the future focus for the OD should be towards the development of staff members and creating a suitable organizational culture and infrastructure such that knowledge sharing is promoted.

Keywords: Organizational development, Tacit knowledge, Externalization, Sharing, Conceptual framework, Case study

1. Introduction

Currently organizations are facing turbulent environments and need to develop all the resources that they have (Stewart, 1997). Available resources include, land, technology, money, plants, land and employees. Presently one of the most important resources for an organization is the employees (Saint-Onge, 1996). However, it has also been found that the human aspects of knowledge creation are critical for sustaining organizations. An organization's knowledge is considered to be derived from its employees (Von Krogh, Ichijo, & Nonaka, 2000). In this case, organizational knowledge is the staff members' capability (tacit knowledge) that they have developed to draw distinctions in the process of carrying out their work, in particular concrete contexts, by enacting sets of generalizations (propositional statements) whose application depends on historically evolved collective understandings and experiences (Tsoukas & Vladimirou, 2001). Managing this aspect of knowledge means that a company must strive to sustain a spirit of community at work, to encourage employees to improvise and undertake initiatives of their own, as well as actively maintain a sense of corporate mission (Tsoukas & Vladimirou, 2001). Therefore, inquiries based upon the divergence of meanings and perspectives are then facilitated (Courtney, Croasdell, & Paradice, 1998).

Previous research within the OD area has identified one of the factors that causes the failure of OD as being attributable to the earlier frameworks of OD. These frameworks have not addressed the issue of the process of tacit knowledge, which is deeply rooted in an individual's actions, experiences, ideals, values or emotions (Malhotra, 2004). Utilizing such reasoning, this research attempts to propose a conceptual framework that identifies and discusses the aforementioned issues and

eases the process of developing organizations. To achieve this aim, this research assumes that there are two main aspects to be considered; namely, the ability to externalize and share knowledge and skills, and self-documentation. These two aspects are emphasized as they can encourage employees to contribute inputs towards OD (Karhu, 2002).

To better understand the purpose of this research, a research question has been developed: "How do we include individuals in the organization developmental process? Why use the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in order to include individuals in the organization developmental process?

The elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse have been stated in the aforementioned research question. This research proposed the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse as they have been considered important for the development of employee confidence and a willingness to contribute inputs for OD (Butcher, Harvey, & Atkinson, 1997; Choudrie & Selamat, 2005). Practically, the use of the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in OD is a novel idea. These elements are combined in a manner such that a novel framework is formed, which is then applied in a real life setting using a case study approach.

When research is undertaken there are also benefits associated with it. For industry this research is beneficial as it will provide it with a guideline that explains how to embed staff members' knowledge and skills within the OD processes. For academia, the conceptual framework provides a theoretical and practical understanding of the integration of staff members into the OD process.

To familiarize the reader to this paper, a description of its structure is provided. The paper begins by offering an examination of the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in the OD and management literature. The management and OD literature are then surveyed for specific guidance in relation to tacit knowledge externalization and sharing and a framework synthesizing the prior research is developed and presented. Following this, the research approach is outlined, which then leads to a description of the case study. The theoretical concepts and the conceptual framework are then studied in the context of an organizational setting. The paper then finishes with conclusions and suggestions for further research.

2. Literature Review

To understand how the externalization and sharing of tacit knowledge and the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse can be used to support individual-based OD, it is useful to have a fundamental understanding of the underpinning concepts. This is provided in the following subsections.

2.1 Organizational development has to start with the individual

In practice, the primacy of individual impact has been increasingly recognized in the organizational life. For instance, human resource systems have been developed to reward individual performance and initiative and to tailor employment contracts to individual circumstances (Butcher et al., 1997). In addition, individual managers are being asked to take responsibility for their own career management whilst the organization provides them with opportunities to improve their employability (Butcher et al., 1997). The advent of new and more accessible technology, the delayering of organizations and the painful process of empowerment has led to the expansion of discretion and responsibility (Butcher et al., 1997). However, this growing significance of individual contribution to organizations has had little impact on OD (Butcher et al., 1997). This research argues that this issue is primarily due to lack of willingness and a sense of responsibility amongst staff members to externalize, share and document their tacit knowledge.

Tacit knowledge is an individual's intuition, beliefs, assumptions and values, formed as a result of experience (Saint-Onge, 1996). Augier and Vendelo (1999) argued that due to its transparent and subjective nature tacit knowledge is not easily externalized. Difficulties appear when expressing or documenting knowledge that appears obvious and natural to one (Haldin-Herrgard, 2000). Further, the difficulties in externalizing and sharing of tacit knowledge are also linked to language, time, value and distance (Haldin-Herrgard, 2000). Alternatively, there are factors that prevent individuals from sharing their tacit knowledge or seeking clarification from colleagues and peers, including the lack of confidence, anxiety, unwillingness, confusion, and being carried away by strong feelings (Harvey & Butcher, 1998).

Generally, the above discussion identifies the main factors requiring consideration when attempting to continuously develop an organization. Therefore, in order to obtain inputs from employees an understanding of how to encourage individuals to externalize, share and document their tacit knowledge is imperative. To achieve this, this research proposes the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in OD, which is discussed further in the next section.

2.2 Developing individuals for developing organizations

Understanding the ability to externalize, share and document tacit knowledge enables an organization to undertake continu-

ous development and consequently disseminate new insights for learning (Malhotra, 2004). This section presents an overview of the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse that will be used as a means for developing employees' abilities to externalize, share and document tacit knowledge.

To develop an organization, it has been suggested that competencies should be generic rather than organization specific (Butcher et al., 1997). Additionally, competencies cannot be usefully specified in terms of neatly identifiable, observable or measurable behaviors (Butcher et al., 1997). Therefore, competencies should involve increasing self-knowledge and improving abilities which underpin and determine how and when knowledge and skills will be used (Butcher et al., 1997).

This research proposes the following elements that are required to develop the above competencies: (a) understanding organizational roles; (b) internal strengths; (c) formal and informal discussion and (d) rational discourse. These elements were selected as they are more focused upon developing the employees' communication skills, assertiveness and dealing with conflict, persuading others and managing organizational politics, which are relevant to achieve the objective of this research. To acquaint the reader to the elements, the definitions, descriptions and justifications of each element are provided in the following paragraphs.

This research asserts that employees' need to understand three fundamental aspects when working in organizations: (a) personal responsibility; (b) task priority and (c) personal targets (Choudrie & Selamat, 2005). This understanding is essential as it promotes the judicious use of accumulated experience and is beneficial when developing business. Therefore, this understanding should be emphasized when developing effective OD frameworks.

Further, we propose that eight internal strengths should be instilled within employees' in order to develop abilities to effectively use knowledge and skills and thus establish an environment conducive for a continuous OD. These eight internal strengths were chosen as they enable the use of knowledge and skills in an effective manner.

The first internal strength that is proposed in this research is personal confidence. Personal confidence is a self-belief in undertaking and accomplishing organizational tasks (Harvey & Butcher, 1998). As one of the elements that prevent staff members from externalizing and sharing their tacit knowledge is lack of confidence (Harvey & Butcher, 1998), this element should be emphasized when understanding an OD framework. The second internal strength proposed in this research is observing accepted organizational approaches. By observing accepted organizational approaches, staff members can undertake tasks based upon "the right approach for the right situation" (Srikantaiah & Koenig, 2000). As this internal strength promotes sharing information with, and obtaining clarification from, other parties, it needs to be emphasized in developing business (Karhu, 2002). Therefore, this understanding should be emphasized when developing effective OD frameworks.

The third internal strength was identified as undertaking tasks with commitment and self-discipline. The most important thing that every staff member has to bear in mind in the workplace is that "we must do the job." Without these values, employees tend to undertake a job hastily and carelessly. This in turn will badly affect the quality of organizational operations. In short, this internal strength is the backbone of enabling knowledge and skills utilization amongst staff members. Therefore, this internal strength has the potential to enable a learning process thriving within the organizations and in turn should be emphasized when developing effective OD frameworks.

The fourth internal strength was recognized to be self-awareness. Self-awareness is defined as "an ability to determine the tasks that need to be accomplished at the current time and accomplish the determined tasks according to an accepted organizational approach" (Butcher et al., 1997). In other words, it is related to the phrase "do the right things at the right time." These processes involve actively sharing and externalizing knowledge and obtaining a clarification process from others. Therefore, self-awareness is a relevant consideration when establishing an effective OD framework.

The fifth identified internal strength is self-remembrance. For the purposes of this research self-remembrance is defined as "the value that requires staff members to mind their actions when undertaking a task so that it can be accomplished effectively and to remember that through their effective actions the company can achieve a good profit and consequently give them a good salary and bonus" (Choudrie & Selamat, 2005). The combination of these two values can motivate a person and others to work hard and smart. From this description, it can be seen that self-remembrance enables staff members to actively utilize their knowledge and skills in the process of decision making. Therefore, this internal strength is applicable in the process of developing business and in turn OD framework.

Compassion was viewed to be the sixth internal strength. In this research, compassion is defined as having "a feeling that the whole organization is like a family" (Choudrie & Selamat, 2005). Each staff member should appreciate the other members' efforts since all of them have the same aim and objective in terms of job security. Being equipped with this value, staff members can then trust each other and consequently neutralize the feeling that prevents them from sharing information with other members. This situation is critical in developing business entity and therefore needs to be considered in this research.

To ensure that every employee has a feeling that he/she works for the sake of the company and for fulfilling his/her responsibility to the company, sincerity is considered pertinent. This is the seventh internal strength of this research. Sincerity can motivate employees to work collectively and harmoniously in the workplace. This scenario is critical in

creating a learning environment in the organization and therefore should be emphasized in this research.

Finally, employees must have the willingness to change whenever the need arises. This is due to rapid changes in the organizational life and business environment. This process is like a continuous improvement in an organization so that its competitiveness does not deteriorate. As willingness to change is related closely to OD, this value needs to be considered in this research.

Another element that is proposed by this research when developing the staff members is the ability to conduct formal and informal discussions within the organization. This is because staff members face various tasks in daily activities – routine, non-routine, official and unofficial (Malhotra, 2004). Formal approaches are procedures such as meetings, progress reports and performance evaluation reports. Within organizations there are also instances of 'chats around the water fountains' or 'in the corridors', which are also known as informal discussions. Other forms of informal approaches include, dialogue, face-to-face interaction, corridor meeting, lunch table chats and coffee/tea table chats. Through good communication, learning and teaching activities can be undertaken actively amongst staff members. Therefore, this value should be emphasized in order to create an effective OD framework.

When considering the establishment of a platform in an individual's mindset, particularly when developing an organization, the presence of another element is required; this is rational discourse. A rational discourse can legitimize the selection of a design ideal because it ensures that the arguments of all interested parties are heard, that the choice results in an informed consensus about the design ideal, and the formal value choice is made only by the force of the better argument (Klein & Hirschheim, 1996). These values are critical for developing the above competencies. In addition, they are able to promote active tacit knowledge externalization and sharing amongst staff members, especially in meetings and dialogue. Therefore, rational discourse should be considered for establishing a platform in an individual's mindset for developing an organization.

From the previous discussions, it is declared that individuals are developed based upon the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse. This is something that prior research such as that by Butcher et al. (1997) has not undertaken. Additionally, the concept of individual development in this research is utilized for developing an effective OD framework. Therefore, for the first element of this research's conceptual framework an understanding of organizational roles, internal strengths, formal and informal discussion and rational discourse is required.

2.3 Enabling tacit knowledge externalization

Based on the aforementioned discussion, it can be learnt that the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse can assist in building a confident and responsible individual (Choudrie & Selamat, 2005). These values, in turn, create three important competencies as follows: (a) influencing skills; (b) sharing attitudes; and (c) inquisitive tendencies (Choudrie & Selamat, 2005). In other words, influencing skills, sharing attitudes and inquisitive tendencies are the second element of this research conceptual framework.

It was also found in the earlier sections that there are problems when developing organization, which is the need to develop an individual's ability when externalizing and sharing tacit knowledge. In such an instance, understanding organizational roles, internal strengths, formal and informal discussion, rational discourse, influencing skills, sharing attitudes and inquisitive tendencies are the humanistic elements that should be considered when considering means of overcoming the difficulties in externalizing and sharing tacit knowledge. This is because by practicing the above influencing skills, sharing attitudes and inquisitive tendencies, individuals can generate creative ideas (I), actions (A), reactions (R) and reflections (R) (Choudrie & Selamat, 2005). The terms ideas, actions, reactions and reflections represent forms of activities within an organization. These activities then allow the externalizing and sharing of tacit knowledge that can provide synergistic inputs for a continuous development of organizations. Therefore, the I-A-R-R continuum is the third element of this research conceptual framework.

However, for this the tacit knowledge must be initially documented. This can be achieved by the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse (Choudrie & Selamat, 2005). The development of these elements results in the willingness to question implicit assumptions, explore new possibilities and directing energies toward higher standards and in turn enables the staff members to be well prepared, using good documented progress reports or working papers. In the longer term this then ensures that there is a tangible means of the verification and validation of tacit knowledge. Therefore, tacit knowledge documentation is the fourth element of this research conceptual framework.

Reflecting on the above discussion, it can be determined that individual development is the starting point of an OD framework. Additionally, it can be learnt from the previous discussion that understanding organizational roles, internal strengths, formal and informal discussion and rational discourse should become the starting point for the individual development.

2.4 Developing organizations

As earlier explained tacit knowledge must be documented. This knowledge is then transformed into explicit knowledge (e.

g. through business reports, written descriptions or instructions). All these self-documentation is then given to the systems officers. At this stage, the system officers study the documented inputs provided by staff members and codify them. By the time the inputs are transformed into codified domains within the systems, they become information that assist staff members in fulfilling their responsibility. This is the fifth element of this research conceptual framework.

2.5 A conceptual framework

To understand the relationship between the earlier mentioned five elements a diagrammatic representation has been developed, which is illustrated below (Figure 1). As shown in the diagram, individual development is initially fostered by the elements of understanding organizational roles, internal strengths, formality and informality, and rational discourse. In this case, the first element of the framework is represented by Stage A in the diagram. The element of understanding organizational roles increases the motivation to work diligently and thoroughly in the organization amongst the employees (Butcher et al., 1997). This, in turn, increases the employees' concern with the relevancy of the provided information in order to accomplish organizational tasks. Therefore, the element of understanding organizational roles should be included in the organization developmental framework.

The internal strengths earlier proposed by this research, personal confidence, observing accepted organizational approaches, undertaking tasks with commitment and self-discipline, self-awareness, self-remembrance, compassion, sincerity and willingness to change were selected as employees equipped with these elements determine how and when knowledge will be practiced within the organization, which is critical to the developmental process (Choudrie & Selamat, 2005). These characteristics, in turn, increase the applicability of the proposed eight internal strengths in developing organizations.

Another element that is proposed by this research when developing individuals is the ability to conduct formal and informal discussions within the organization. When equipped with the ability to conduct formal and informal discussions, it is argued that staff members can read situations, understand and resolve problems, and consider a range of options in a collective manner (Malhotra, 2004). These values can highlight the need to continuously re-examine and modify the operations of the organizations. Therefore, the element of formal and informal discussions is beneficial to be included in the organization developmental framework.

The final individual developmental element that is proposed by this research is rational discourse. Rational discourse was selected as whenever an OD is applied, it serves some human interests; therefore, the developmental approaches are made to serve some interests at the expense of others and involve moral value judgments (Klein & Hirschheim, 1996). This means that practical advice concerning the development of an organization must not be limited only to the technical aspects, but also address moral issues, such as what is good or bad, or what is right or wrong in any particular application. Therefore, there is a need to establish a platform to approach such value judgments in a rational way.

As the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse enable the use of knowledge and skills in an effective manner (Choudrie & Selamat, 2005), they are pertinent for the development of influencing skills (Stage B), sharing attitudes (Stage C) and inquisitive tendencies (Stage D). These three stages represent the second element of the aforementioned theoretical framework. Being equipped with these competencies, staff members can face the difficulties in the externalization and sharing of tacit knowledge and in obtaining information from colleagues. Consequently this can provide externalized tacit knowledge for OD.

When undertaking influencing, sharing and inquiring activities, an individual implicitly expresses tacit knowledge. This expression is either in physical form (actions and reactions) or verbal form (ideas and reflection) (Choudrie & Selamat, 2005) (Stage E). This Ideas-Actions-Reactions-Reflections continuum provides externalized tacit knowledge for OD (Choudrie & Selamat, 2005). Stage E of the diagram represents the third element of the framework (as noted above).

However, the externalized ideas, actions, reactions and reflections must initially be documented. This process is undertaken at Stage F and it represents the fourth element of the above theoretical framework. At this stage, the externalized tacit knowledge is documented and transformed into explicit knowledge (e.g. through business reports, written descriptions or instructions). Knowledge documentation can be achieved by the value of self-documentation, which is also developed by the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse (Choudrie & Selamat, 2005). This is due to the willingness to question implicit assumptions, explore new possibilities and direct energies toward higher standards enables the staff members to be well prepared, using good documented progress reports or working papers. All these self-documented facts in turn provide inputs for a continuous development of an organization.

The documented inputs provided by staff members can be transformed into codified domains within the systems (system database) or compiled in files (Stage G). In turn these databases or files can be utilized to refine decision and develop strategies for future development. This is because the documented inputs enable the organizations to identify an operational progress, to access to new operational approaches, and to improve actions through better inputs and ideas. Through this process, an individual's understanding of the organization's activities (tacit knowledge) is also enriched. This new understanding in turn becomes a platform for continuous OD processes. In the diagram, this process is represented by Stage H. Stages G and H represent the fifth element of the aforementioned theoretical framework.

In this section the framework for OD represents a framework for developing an organization and was also used to guide the research process. The framework illustrates the elements that should be considered in order to create a continuous development of an organization. By developing and explaining this framework this research answers the question: "How do we include individuals in the organization developmental process? Why use the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in order to include individuals in the organization developmental process? What is also learnt from this research is that the cooperation between individuals, the systems officer and the organization is also an important attribute to include in the process of developing organization.

3. Research Approach

Although the aim of this research was clear, the novelty of the topic under study for the OD discipline meant that many of the questions were unknown and would evolve over the duration of this project. This presented many challenges for the research process as the questions had to be ground to the 'real world'. Further, as this research involved studying the behaviours of employees a deep understanding of the humanistic elements (Myers & Avison, 2002) was required. For this a qualitative approach that involved data focused upon words (Miles & Huberman, 1994) rather than numbers was undertaken (Myers & Avison, 2002). An in-depth case study process was used and involved employing a large Malaysian organization that was committed to the project; that is, full access and participation was offered to the researcher.

The research activities consisted of preparing a training module, conducting the training programme and collecting data within a duration of approximately a year. The module contained the descriptions of the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse and was related to the concepts of OD amongst the respondents during the training program.

The participants used in this research consisted of 31 engineers and 8 system officers. The engineers were selected as they were the critical group in ensuring the smooth operation of the plant; therefore their contribution to the organization is of paramount importance. Alternatively, the system officers were selected because they were the critical group for information processing; therefore it was relevant to study the impact of the framework in information processing and consequently OD. The participants consisted of the Centralized Maintenance Management System (CMMS).

Two months after the training session, face-to-face interviews were conducted. A two-month period was allocated to enable the progress review process and the participants to understand and utilize the elements that were discussed in the program. A face-to-face interview approach was utilized as it provided flexibility in the questioning process, control of the interview situation and provided the opportunity to obtain additional information, such as the background information or natural reactions of the participants (Nachmias and Frankfort-Nachmias, 1996). The interviews were tape-recorded and transcribed on the same day. This approach was utilized to ensure that all the information and any further details that were imperative for this research were recorded and not missed out (Nachmias and Frankfort-Nachmias, 1996). The data were analyzed by using a manual analysis process due to the small number of participants.

4. Describing the Case Study

As stated earlier the research had identified several elements that are necessary for OD. However, they still lacked effectiveness, thus necessitating the need to incorporate the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse. This section of the paper describes the application of the framework in a real life setting. A leading Malaysian steel manufacturer, Perwaja Steel Sdn Bhd (Perwaja) agreed to and was used for this research. The organization has two plants, namely, Kemaman plant and Gurun plant with the headquarters being based in Kuala Lumpur. As a manufacturing company, one of the main activities of interest was establishing an effective and efficient maintenance operation. The maintenance operations in Kemaman plant are undertaken in six different departments: (a) instrumentation; (b) mechanical services; (c) water; (d) electrical; (e) crane; and (f) maintenance planning. Gurun plant, on the other hand, has two maintenance departments: (a) maintenance solutions; and (b) utilities. Due to the increasing utilization of the machinery, any delays in repairing any machinery breakdown affects the production and consequently, steel delivery.

To assist with the management of the maintenance activity, Perwaja developed CMMS. Instead of recording and processing maintenance data, CMMS was also utilized to perform maintenance planning. Therefore, in every maintenance department, there was a system officer responsible for CMMS and accountable to the IS department.

An interview with the management personnel of the organization revealed that there was a gap between the production, maintenance and materials departments. The production department blamed the maintenance department for any delays in production due to machine breakdown or ineffective maintenance operations. Contrastingly, the maintenance department's members attributed delays to the ineffective materials management that subsequently caused the unavailability of spare parts. The materials department, as predicted, blamed the vendor and last-minute details of orders being provided for its incapability to provide the spare parts. Such instances have resulted in creating havoc in the plant's operations. From the analysis, it was found that the main factors that contributed to this phenomena are the lack of communicating effectively amongst the employees and the sense of responsibility during the decision making process.

After identifying the causes of the problems, a discussion was held with the human resources director to determine a

solution to the above issues. This was also undertaken bearing in mind the research question and aim of this research. During the meeting, the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse were shared and described. The employees were also emphasized the importance of those elements within the organization and tacit knowledge sharing and externalization. The impact of that process for organizational development was also highlighted. After the meeting, the director agreed to participate in a research training program. For this purpose, 39 immediate stakeholders of the CMMS were selected. The following section explains more of the training program's details.

4.1 Perwaja's training program

The training program was undertaken after understanding the background of the research site. Before the training program could be undertaken, preparation was conducted for the following: (a) program materials such as, the modules, presentation slides and program outline; (b) undertaking the program and (c) undertaking the progress review.

To prepare the module, the researcher undertook an intensive library research at Universiti Utara Malaysia and referred to some material from the Cranfield University General Management Program, and Butcher et al's (1997) developing businesses through developing individuals' research reports. These sources were referred to because they provided basic descriptions and definitions of developing individuals, which were essential in determining the elements that were relevant in developing organizations. The module was based on the acquisition of understanding organizational roles, internal strengths, ability to handle formal and informal discussion and the ability to conduct rational discourse. Based on the completed module, the presentation slides and program outline were then prepared.

The training program was underpinned by seven competency sets: (a) understanding organizational roles; (b) internal strengths; (c) formal and informal discussion; (d) rational discourse; (e) influencing skills; (f) sharing attitudes; and (g) inquisitive tendencies. The first four sets were groupings of specific competencies that were pertinent for developing the ability to determine how and when knowledge will be practiced within the organization. The remaining three sets were groupings of specific competencies that were pertinent for the externalization and sharing of tacit knowledge. In short, the program was based on the acquisition of knowledge about an individual's competencies to deal with conflict within an organization. The number of training days for each plant was limited to six days due to the policy of the company on industrial training.

The program incorporated a variety of features and activities to enhance the learning experience and maximize the personal benefits. These included: (a) interactive lectures; (b) syndicate group work; (c) work on live business and IS issues, (d) profiling questionnaires; (e) case studies; (f) one-to-one tutorials or coaching; (g) individual work and (h) a one-day follow up.

On the final day of the program, the participants constructed a comprehensive one-month action plan, such as the targeted number of machinery breakdowns and the targeted length of repairing services. This formed the basis of the progress review. Generally, for the progress review, the researcher met the research participants individually in order to further develop the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse by discussing their achievements on the targeted actions. The implication of the training program was that it developed individuals' motivation and willingness to externalize and share their tacit knowledge effectively. It is suggested that being equipped with these elements enables staff members to provide ideas or views (inputs) for a continuous re-examination and modification of CMMS (Choudrie & Selamat, 2005). Being continuously updated, it is argued that the CMMS can promote OD because staff members can gain new insights in performing tasks (Choudrie & Selamat, 2005). This is due to the current information or contents that the system has. This relationship, in turn, could answer the research questions of this research that are as follows: "How do we include individuals in the organization developmental process? Why use the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in order to include individuals in the organization developmental process?

Two months after the training program, the data collection assessing the value of the conceptual framework in practice commenced. The next section describes the findings.

4.2 Discussion of the data

From the aforementioned discussions, the researcher wanted to investigate whether the elements of understanding organisational roles, internal strengths, formal and informal discussion and rational discourse can develop influencing skills, sharing attitudes and inquisitive tendencies in the research participants' mindsets. In addition, the researcher wanted to investigate the impact of influencing skills, sharing attitudes and inquisitive tendencies on tacit knowledge externalisation and OD. The answers for these research questions are offered in the following subsections. The discussion of the following subsections will follow the functioning of the framework illustrated in Figure 1.

4.3 Influencing skills, sharing attitudes and inquisitive tendencies

From the received responses there was an indication that there will be an occurrence of change across all the seven competency sets of the individual development process. With regards to the influencing skills, the interviewed participants

indicated improvements. For example:

"After the course, I was able to improve my influencing skills. I lead one team in my department and I want it to be the best. To achieve this goal, every unit member should also appreciate it. Before this, teamwork in my unit was not so good. After the program, I started playing an important role in instilling this understanding amongst my staff. All the problems were settled in the meeting. Thank God, it was a most fruitful strategy. Everybody has started to work together now."

Mr. Azize

"The main thing I learnt from the course was the importance of having a good relationship between staff members. Before this, I was sceptical about doing a job together and communicating with others. Maybe they have political reasons for doing such things. However, I managed to gradually overcome this feeling."

Mr. Hazis

From the above statements it can be learnt that Mr. Azize and Mr. Hazis experienced a significant development of communication skills and a willingness to persuade others. These values helped them to effectively utilize knowledge and skills in order to influence others in the organization. In other words, they experienced a significant development of influencing skills (Butcher et al., 1997). This development illustrated that the training program had successfully developed the research participants' influencing skills.

As well as this, the research participants significantly commented on the development of sharing attitudes. For example:

"On returning from the program, I felt that all the staff members were like one big family. It is my responsibility to help others, share the information that I possess and establish a good relationship with others."

Mr. Mohamed Ridzuan

"The programme not only developed myself but also my unit members. After the programme, I had the strength to explain the right way in undertaking the designated jobs to all my staff. Before this, they just followed their gut feeling in undertaking tasks, which normally ended with a low level of quality. At the moment, the situation is improving day by day."

Mr. Ishak

From the above statements, Mr. Mohamed Ridzuan and Mr. Ishak highlighted the ability to inform others about the need for changes or improvement. This ability helped them to explain everything that needs to be undertaken during the operations to others. All these abilities, in turn, develop their sharing attitudes (Choudrie & Selamat, 2005). This development illustrated that the training program had successfully developed the research participants' sharing attitudes.

With regards to the inquisitive tendencies, the research participants indicated improvements as a result of the program. For example:

"From an active communication program that I promoted in my unit after the program, my staff were not hesitant to meet me for any technical or non-technical assistance. I tried my best to assist them and, if I thought that it was not under my expertise, I referred them to the right person, but still under my supervision. So... yeah... through asking activities, the work could be undertaken smoothly. Furthermore, we should learn from many experts, not only ones specific to the nature of the problem."

Mr. Zaini

"The course has changed my behavior from timid to friendly. Before this I was not very sociable. After delegating the tasks to my subordinates, I would concentrate on my own work. But after the course I always meet my subordinates to ask about work progress, problems and internal feeling due to heavy work burdens. In addition, I became confident in facing my colleagues in the meeting and expressed my views if necessary."

Mr. Abdul Rahim

The aforementioned empirical results demonstrate a significant development of the Mr. Zaini and Mr. Abdul Rahims' ability to ask others more effectively. This ability helped them to undertake tasks according to the accepted procedures. In other words, they experienced a profound development of inquisitive tendencies (Butcher et al., 1997). Therefore, it can be learnt that the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse are capable of developing inquisitive tendencies in this research.

To recapitulate, the aforementioned empirical results demonstrate a significant development of influencing skills, sharing attitudes and inquisitive tendencies. This verified that the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse are capable of developing influencing skills, sharing attitudes and inquisitive tendencies. These findings illustrate that stages A, B, C and D of the research conceptual framework (as illustrated in Figure 1) have been achieved. In other words, the elements of understanding organizational roles, internal strengths, formal and informal discussion and rational discourse had successfully developed influencing skills, sharing attitudes and inquisitive tendencies in the research participants' mindsets.

At this point, the impact of the elements of understanding organizational roles, internal strengths, formal and informal

discussion and rational discourse on the development of influencing skills, sharing attitudes and inquisitive tendencies have been discussed. However, the externalization of tacit knowledge has not yet been investigated. For this the next subsection will describe the externalization of tacit knowledge through the medium of ideas, actions, reactions and reflections.

4.4 Externalized tacit knowledge: ideas, actions, reactions and reflections

One of the greatest issues of concern in this research was improving the research participants' ability to externalize their ideas. The following example offers an overview of the improvements described by the research participants:

"After the program, expressing ideas has become a norm in my daily activities. However, I will also encourage others to do the same. If the ideas come from only one source, it is risky, because every idea has its weakness. So, before making a decision, I will listen to and understand other people's ideas so that a comparison could be made. This strategy is much safer than relying on one source of ideas."

Mr. Nordin

"By influencing, sharing and asking, I was able to get feedback from my colleagues for the sake of work improvements. Although I know exactly how to do it, by practising such things indirectly I was able to create synergy in my unit because everyone contributes to ideas in order to achieve unit's goals."

Mr. Tg Mahathir

Mr. Nordin and YM Tg Mahathir highlighted the ability to externalize ideas. In this case, they mention the importance of sharing their ideas with others in the workplace. Therefore, it can be learnt that the training program had successfully developed the research participants' ability to externalize ideas.

With regards to the actions and reactions, the following is the example that illustrated the participants' ability to externalize and express them:

"By observing what I learnt from the program, I was able to rationalize my working style and consequently improve its effectiveness and efficiency. Having an idea of the work of 10 people is much better when improving our actions and reactions."

Mr. Yaakop

"When I know that my worker is behaving in a particular way, I will approach him according to that personal value. By practicing this, I am able to tackle problems in the site smoothly. In addition, I know how to delegate work appropriately, based on my staff's abilities and constraints. This program was really helpful in creating this culture and I started to spread it gradually in my unit."

Mr. Zainizam

The above empirical results revealed that Mr. Yaakop and Mr. Zainizam described changes in an ability to perform ideal actions and to change their perceptions or working techniques in order to cope with changes in the environment (reaction process). From the responses, it can be learnt that they were able to delegate, empower their staff, contribute to cross-functional decisions and improve important working relationships. This value, in turn, enabled an active re-examination and revaluation process of the needed information. In turn, this development illustrated that the training program had successfully developed the research participants' ability to generate actions and reactions in the workplace.

As a result of the training program, the participants described changes in their ability to reflect upon problems and, in turn, determine a suitable solution. These changes were the result of the participants' responsibility and awareness to improve their organization. They reported being able to sift and prioritize information, evaluate problems from multiple points of view and determine "the right thing at the right time." For example, one of the participants stated that he never consulted his subordinates. If there was any issue, it remained in his mind and therefore all he did was convey instructions to subordinates so that customers' order could be delivered on time. However, after the program he began to interact with his staff and discussed the problems in the plant using face-to-face meetings. As a result, many personal conflicts in the plant were resolved and the teamwork was improved. In other words, the research participants are better equipped to navigate the dynamic organizational environments and influence effectively within them. The examples are as follows:

"By asking somebody, I knew how to solve problems effectively and knew the correct contact person. I faced so many types of problems before including human-related problems. All of these needed acute responses, and communication was the safest approach to be utilized. This was what the program had significantly helped me with."

Mr. Abdul Halim

"Influencing, sharing and inquiring activities are like an early warning system. Through all these activities, I was able to detect working problems earlier and thereafter seek preventions or accordingly corrected the plan. As a result, my unit recently received appreciation from the bosses."

Mr. Mohd Rahmat

From the above statements it can be learnt that Mr. Abdul Halim and Mr. Mohd Rahmat experienced a significant develop-

ment of the ability to reflect upon problems and, in turn, determine a suitable solution. This ability helped them to effectively utilize knowledge and skills in order to reflect problems in the organization. This development illustrated that the training program had successfully developed the research participants' ability to effectively reflect upon problems.

The above results illustrating the ideas, actions, reactions and reflections formulation represent the ability of the participants to effectively externalize and sharing of their tacit knowledge. This was further supported by three findings. The first was that the participants were motivated to share their work progress with others. In this case they were not restricted to asking only the CMMS officers for any specific technical assistance. Second, the participants were actively involved in documenting their ideas, actions, reactions and reflections. These documented inputs were then shared with the system officers for the purpose of updating the CMMS. This iterative link between the users and systems enabled synergistic inputs to be provided for continuous CMMS development. Third, the CMMS officers described undertaking sole responsibility and an awareness for updating and utilizing the contents of CMMS. Updating and utilizing the CMMS's contents, in many cases, involved having active communication and face-to-face meetings with the users. All these changes enabled CMMS to obtain new inputs and, as a result, to be able to provide current progress of the maintenance jobs to the users (stages E and F of Figure 1).

Implicit in the above findings was that the elements of understanding organizational roles, internal strengths, formal and informal discussions, rational discourse, influencing skills, sharing attitudes and inquisitive tendencies did provide a platform to the participants for externalizing their tacit knowledge in a creative and spontaneous manner. This was evident from the ideas, actions, reactions and reflections that they documented and shared with other staff members. Therefore, it is declared that stages E and F of this research conceptual framework (as illustrated in Figure 1) have been substantiated.

When relating the above tacit knowledge externalization issue to OD, all the participants agreed that there could be a basis for improving daily activities. In this case, there was a significant relationship between the documentation of the externalized tacit knowledge with the continuous development of an organization. The statement made by the one of the engineers was the best example of this issue:

"The course gave me guidance on how to build a good relationship with others in my department. Before this, when I got a complaint I always considered the others' views from the negative side, such as "they are trying to blame me or damage my reputation". But after the course, I had a positive outlook of them and was also willing to collectively solve the problem."

The aforementioned results supported stages G and H and tacit knowledge development of this research's conceptual framework (as illustrated in Figure 1), which is that the externalized and shared tacit knowledge led to OD through daily task improvement.

From the above discussion it is clear that the development of the elements of understanding organizational roles, internal strengths, formal and informal discussions, rational discourse, influencing skills, sharing attitudes and inquisitive tendencies can assist in developing an organization. This is because they create a willingness amongst the staff members to provide knowledge-based inputs to the organization. These inputs, in turn, enable a continuous development of an organization, given the changing reality. Continuously challenging the current "company norm," such scenarios are expected to prevent the core capabilities of yesterday from becoming the core rigidities of tomorrow" (Malhotra, 1997). By obtaining access to that current "company norm" and internalizing them, the staff members can improve their actions through better knowledge. Consequently, tasks can be undertaken effectively – organizational development. Therefore, at this point it is declared that the conceptual framework used in this research can be applied to continuously develop an organization.

5. Conclusions

There are many humanistic elements that prevent individuals from externalizing, expressing and sharing their tacit knowledge such as, lack of confidence, anxiety, unwillingness, confusion, and being carried away by strong feelings. This problem is critical in the process of developing an organization as the involvement and the participation from the staff members are of paramount importance. This research attempted to shed a light on this matter by focusing on the elements that can encourage individuals to participate in the process of developing organization. To undertake this, two research questions are proposed that are as follows: "How do we include individuals in the organization developmental process? Why use the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse in order to include individuals in the organization developmental process? In other words, this research has attempted to recognize and capitalize on the critical role that individual development plays in OD.

To achieve the aim of studying the elements that can encourage staff members to contribute inputs for OD, this research developed a conceptual framework based on the concepts of tacit knowledge externalization and sharing. Tacit knowledge externalization and sharing, in turn, are enabled by using the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse. To enable validation of the above research issues, an in-depth, longitudinal case study was presented.

From the undertaken research it was found that the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse enabled the development of influencing skills, sharing attitudes and

inquisitive tendencies. These abilities, in turn, improved the participants' responsibility and awareness to externalize and share their tacit knowledge effectively. By documenting the externalized and shared tacit knowledge, the research participants can provide inputs to the management for improving daily operations (Choudrie & Selamat, 2005). Continuously improving the current "company norm," such approach is expected to prevent the core capabilities of yesterday from becoming the core rigidities of tomorrow. In short, an active involvement of staff members in contributing views or ideas enables organizational strategies, policies and approaches subject to continual re-examination and modification given a changing environment. These findings illustrate that the research questions of this research has been successfully answered. Therefore, the main focus of this research for OD should be towards individual development that develops a willingness to contribute ideas that further develop an organization continuously.

The elements of understanding organizational roles, internal strengths, formal and informal discussions, rational discourse, influencing skills, sharing attitudes and inquisitive tendencies can also be used to assist organizations to harness their staff members' expertise in the system. This is due to the fact that tacit knowledge remains the property of a human being (Tsoukas, 2002). Such knowledge is lost when staff members leave the organization. It is suggested that being equipped with these elements enables staff members to provide ideas or views (inputs) for a continuous re-examination and modification of IS. Through this process, the organizations can establish an effective knowledge management system and can solve the problem of "reinventing the wheel."

A limitation of this research is that it was undertaken in Malaysia; therefore it is restricted to a certain context – Malaysia. This includes the elements of culture, faith, perception, values and norms, which are different in that country. Therefore, a future direction that this research can undertake is to examine the application of the framework in a different context and determine how much would be relevant in that instance. Another limitation of this research is that this research could only be undertaken in OD due to the time restrictions. This limitation can be overcome in the future by extending the contexts to other areas such as systems development and organizations planning and control strategies. By doing so, there would be a benefit by obtaining an understanding of the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse. This is achieved by encouraging people to contribute inputs for developmental processes. All these areas have the potential to be introduced with the elements of understanding organizational roles, internal strengths, formal and informal discussions and rational discourse since they are bound to a human being's awareness and willingness for successful implementation.

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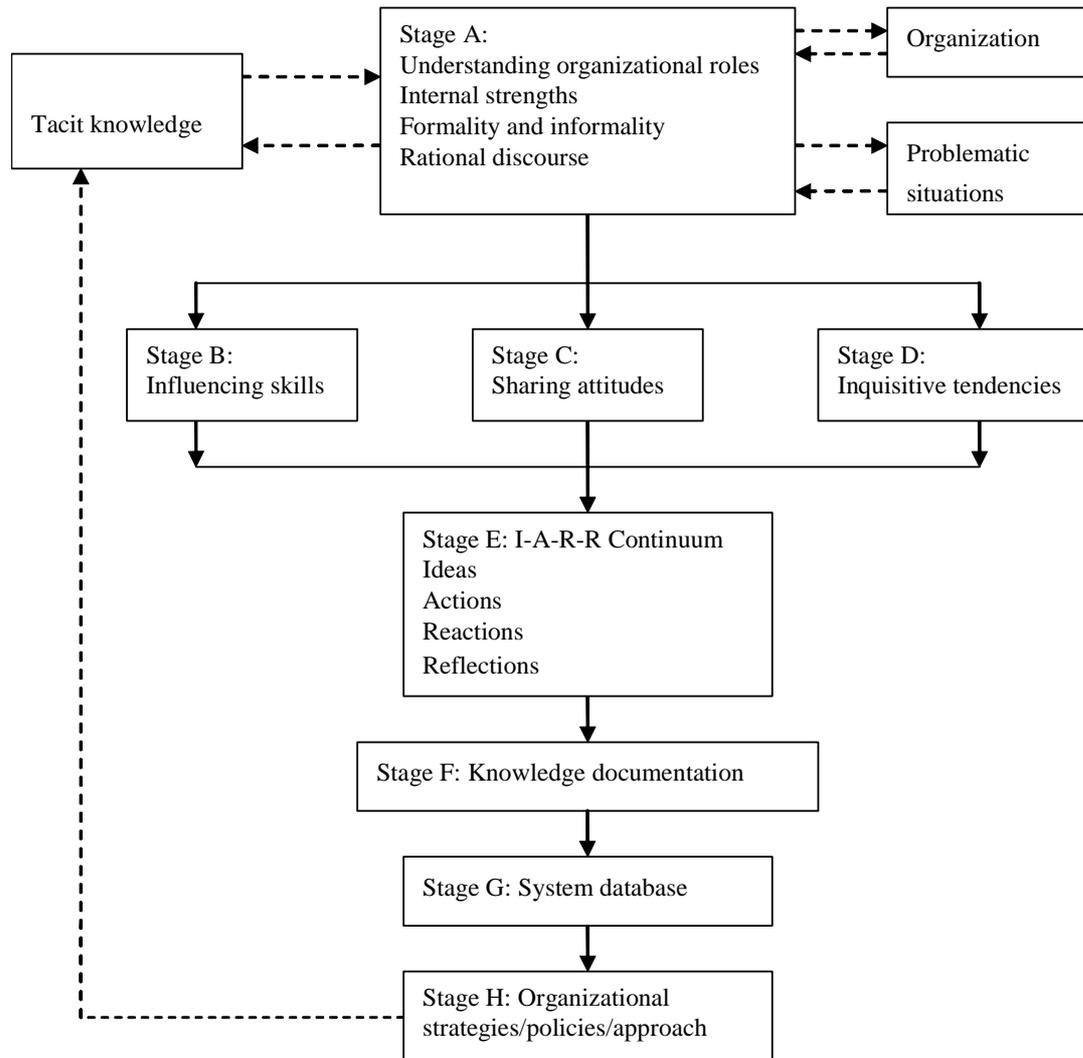Von Krogh, G., Ichijo, K. and Nonaka, I. (2000). *Enabling knowledge creation*. New York: Oxford University Press.

Figure 1. Framework for a continuous organizational development