IT transfer program in the creation of innovative and loyal IT professionals in Malaysia

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Abstract *Mobility and turnover among IT professionals is a lost to Malaysian organizations since it disrupts project schedules and increases retraining cost and time. One major reason for leaving the current job is a small opportunity for self and career advancement in the former organization. To meet this professionals' demand, this paper suggests organizations in Malaysia to develop and implement a learning mechanism through the creation of Information Technology Transfer (ITT) Program. The case studies in Malaysia have identified that a good ITT program can play an important role towards creating and maintaining pool of knowledge and professional workers. It is also helpful in supporting organizations to establish longer-term IT transfer and new learning strategies and provide personalized coaching to IT professionals no matter where they are at the moment of need. The program can be fully benefited if it is built with specific and well-planned objectives, design and delivery, monitoring and evaluation mechanism, and benefits.*

Introduction

Information technology professionals (ITPs), for instance system analyst and programmers, have high needs for learning, strong desire to be challenged, and are more achievement oriented compared to other occupation (Lee, 2000; Wynekoop & Walz, 1998). They have stronger need for growth and continuous personal development. As the Government of Malaysia is investing billions of dollars to develop ICT sector, the country needs more highly technical local ITPs to manage and run multibillions projects, such as Malaysia Multimedia Super Corridor (MSC). In meeting the country's demand, these professionals must compete with each other by offering varieties of technical and non-technical IT related-skills. Thus, they keep on looking for a better job and opportunity to acquire the latest knowledge and skills. This phenomenon eventually has contributed to the pattern of mobility among ITPs in the country.

Turn over and mobility among ITPs in Malaysia recently has become very critical (W. Rozaini et al., 2004). This circumstance gives negative impacts on organizations. They cannot bear loosing the professionals especially when projects must be completed within time and financial constraints. As an approach to curb mobility, organizations should strategically plan and implement a program to help ITPs diversify their knowledge and skills. One solution is by creating an information technology transfer program that can offer continuous learning and development to meet the professionals' needs.

The objective of this article is to highlight the role of Information Technology Transfer (ITT) program as an organizational strategy to expand ITPs' skills and knowledge and to create highly motivated and loyal employees. The first section presents the scenario of mobility and turn over in Malaysia while the second section discusses the proposed ITT program in terms of its objectives, design and delivery method, monitoring and evaluating mechanism and finally benefits.

Mobility and Turnover Issues

Mobility and turnover are always an issue especially when dealing with human needs for growth and personal development. Turnover among ITPs becomes a trend in many IT departments in recent years. According to US Department's Office of Technology Policy (Lee, 2000), a case of turnover among ITPs is increasing at a high level. Turnover rates of 25%-35% have been reported in Fortune 500 companies over the past five years (Agarwal and Ferratt, 1999).

A study on mobility among ITPs in Malaysia (W. Rozaini et. al., 2004) found that 60.6 % of the professionals have changed job between one to four times during their career (Table 1.0). Several reasons have been identified to contribute to this pattern. One critical reason is the insufficient prospect and advancement opportunity in former organizations (Huda et al., 2001; W. Rozaini et. al., 2004). Other reasons are high costs of living, instability of previous company, a higher salary and a better position offered by other organization (Table 2.0).

Job Change (How many time?)	Frequency	Percentage (%)
0	33	31.7
1	21	20.2
2	11	10.6
3	17	16.3
4	14	13.5
5	4	3.8
6	2	1.9
7	1	1.0
10	1	1.0
TOTAL	104	100.0

Table 1. The number of times changing job (Source: W. Rozaini et. al., 2004)

REASONS	%
No chance for career advancement	12.62
High costs of living	10.68
Previous company was unstable	9.71
Being offered higher salary	8.74
Being offered higher position	8.74

Table 2. Reasons for leaving former organization (Source: Huda et al., 2001)

The advantages enjoyed by employees after moving to other places are a lost to the former organizations. They encounter job turnover, project disruption, an increase in budget and other resources, and difficulties to get replacement (W. Rozaini, S.O. et. al., 2004). Once ITPs left, they took away with them the specialized skills, tacit knowledge, and understanding on specific business operations and information systems skills. These represent a major lost to organizations, which inadvertently delay a project schedule or in the worst case, could even prevent a complete and successful implementation of a new information system (Moore and Burke, 2002).

ITPs encounter almost a similar situation with the practitioners in transportation technology. They have to become competent in the latest technology in their own area. As Malaysia is progressing towards a developed country by the year 2020, new IT knowledge and skills must occasionally be transferred to local ITPs. Their creativity, innovativeness and expertise are essential to stimulate and to advance the country's development. On this account, there is an obligation for Malaysian organizations to organize and implement ITT program to encourage an advancement of the professionals' skills. In relation with turn over and mobility crisis, ITT program can be perceived as a strategy to create job satisfaction among ITPs, thus inhibiting them from hoping to other places. In some countries, high rates of personnel turnover within public works agencies had triggered a reason for an ongoing technology transfer program (Irwin, 2005). In Malawi, for example, high turnover has aroused when significant number of government workers were relocating to private sectors and overseas (Toledano, 1998). To overcome this crisis during the implementation of Geographical Information System (GIS), a long-term GIS technology transfer program was set up to develop individual and organizational capacities in the government sectors in Malawi.

The Proposed IT Transfer Program

A good ITT program plays an important role towards promoting a pool of knowledge and professional workers. The availability of these workers is significant to maintain the present IT/IS projects and applications, to disseminate new ideas and skills, and to innovate new technology. The case studies have shown that ITT program is most benefit if it is thoroughly designed with appropriate components such as the program objectives, design and delivery method, monitoring and evaluation mechanism, and benefits. In the following, the authors propose the components of ITT Program as being determined from the case studies.

ITT Program Objectives

The focus of ITT Program is to supply the country with knowledgeable and skillful people in IT related areas. In details, ITT program conveys the following objectives:

a. Establish longer-term IT transfer and new learning strategies.

b. Provide personalized coaching to IT professionals no matter where they are at the moment of need.

c. Provide real-time consulting and maximum responsiveness help on issues and concerns currently facing by the professionals.

ITT Program Design and Delivery
The design and delivery of ITT Program can be established through discussion and negotiation between management of organization, technology suppliers and independent consulting firms. The design of ITT Program must incorporate (i) type and contents of knowledge and skills, (ii) types and level of ITT Program (for example seminar, workshop and job attachment), (iii) objectives of each program, (iv) prerequisite knowledge and skills (v) materials used, (vi) requirements for hands-on training, (vii) expectations and achievement (viii) tasks and deliverables and finally (ix) planning for future related programs (Huda et. al., 2002).

ITT program must be effectively delivered to achieve its objectives. The planning for the delivery should focus on the method of conducting, monitoring, and evaluating the progress of ITT program. Another feature is the selection of ITPs to participate in the program. The professionals can be selected based on job position, experiences, previous and future projects responsible, the professional's interest and the organization's business strategy.

ITT Program Monitoring & Evaluating Mechanism
Organization must set up a specific mechanism to monitor and evaluate the effectiveness of ITT Program during and after its completion. The critical aspects to be monitored and evaluated are (i) the relevance of the program's materials (ii) the ability of the program's facilitator (iii) the performance of the participant in terms of knowledge and skills' achievement, and (iv) the political, economy and technological changes.

ITT Program Benefits
The case studies have also identified that organization must expound the benefits of ITT Program to participants. The reason is to indicate appreciation and to encourage ITPs to be more dedicated. Benefits can be stated in monetary and/or non-monetary forms. In monetary form, organization can offer an increment of salary and bonuses, and for the non-monetary form, benefits can be designated in varieties of choices such as engaging the professionals in project ventures, R & D activities, and other types of business collaboration.

Figure 1.0 shows the proposed model of IT Transfer Program that contains the components discussed earlier. The model integrates the components of employer/ organization and IT professional. The components of employer are support, commitment, collaboration and communications while those of professionals are previous skills and knowledge, experiences, job position, responsibility and future interests. With all the components placed into good and strategic position, ITT Program is up for an implementation.

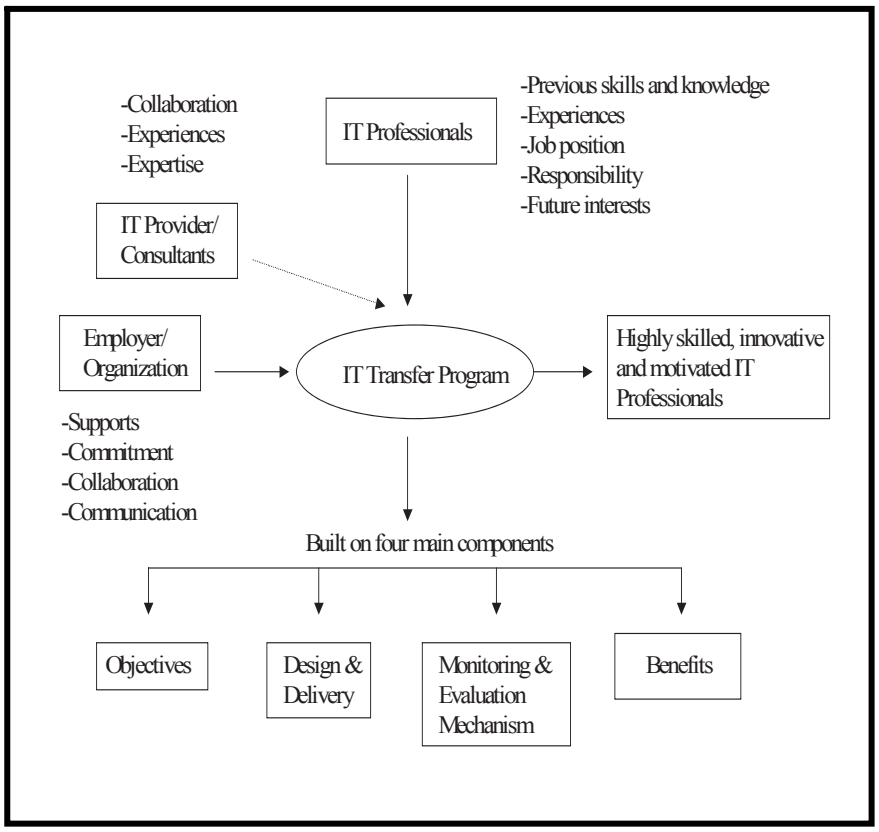

Figure 1. A Proposed Model of IT Transfer Program Development

Conclusions

This paper presents the findings and a proposal resulted from several case studies in Malaysia organizations. The authors have addressed two main issues in this article. The first is the need of the local ITPs for skills and advancement programs to support a development of IS/IT project in the country. The second issue is about ITPs abandoning their current job because of insufficient skills and knowledge advancement program. IT is changing rapidly and therefore ITPs need to be proficient in the latest technology. They will withdraw from their current job if they are offered a better choice. The disengagement of the professionals is a lost to the former organization since it disrupts project schedules, cost and resources.

In meeting the country's and the professionals' demand, organizations are recommended to devise a continuous technology transfer program known as ITT program. The role of the program is towards creating and maintaining a pool of knowledge professional and loyal workers. The case studies have discovered that ITT program is fully benefited if it is formed with specific and well-planned objectives, design and delivery method, monitoring and evaluation mechanism, and benefits. The program will establish new learning strategies and provide ITPs with personalized coaching and real-time consulting.

ITT program carries a symbol of appreciation from the employer and organization to ITPs. The authors believe that the program will not only expand the professionals' skills and knowledge but also increase their loyalty and commitment to employer. It is expected that these achievement will ultimately restrain turn over and mobility among ITPs in Malaysia. In conclusions, the authors would recommend organizations to include ITT Program as one organizational strategy to help increase human productivity and loyalty among their professionals.

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