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Telework Implementation Toward Virtual Organization in Malaysia

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ABSTRACT

Being a virtual organization is the ultimate achievement for some organizations. As the mammoth step, organizations in the country need to explore the possibilities of accepting and implementing their move in telework and subsequently to turn the organization into a virtual working environment. Although the western world has been implementing telework and subsequently becoming a virtual organization. Malaysia as a developing nation has to look in the possibilities of embarking and encouraging the virtual organization's development.

INTRODUCTION

In this era of globalization, Malaysia has no exception to face it tidal wave. Not just organizations but workers of various sectors have to be prepared in facing globalization. Moreover, globalization is associated with the advancement of information communication technology. Further, the world has been seen as borderless.

Virtual organizations concept is totally new to organizations in the country. With the advancement of nation's vision towards an industrialized nation by the year 2020, organizations in the country have to envision themselves toward virtual organization. As the initial move, organizations may need to adapt telework as the tool in moving for a physical organization into a virtual organization.

Moreover knowledge workers are the asset to the organizations, therefore the telework arrangement can motivate them to work at their own pace at any time and any where. Moreover, present awareness on quality work life and the Ministry of Women, Family and Community Development has promoted family life. Thus the idea of telework arrangement has come into the picture of the organizations and workers in Malaysia.

On the other hand, the organization is stressing their workers to increase productivity. In order to balance the demand on quality of work and quality of family, then workers need to find an alternative in their work arrangement. Thus, telework has been made notice to be the viable alternative in achieving the quality of work life and family life.

The motivation of this paper is to view and explore organizations' readiness and acceptance of telework in moving toward virtual organization. What are the motivating factors for organizations to become virtual organizations?

TELEWORK BY DEFINITION

Telework arrangement has been practiced by organizations in the various industrialized countries in the world such as United States, United Kingdom, Japan, etc. In the US, telework arrangement had been introduced to the organization in the 50s. Further it had been extensively promoted in the 70s due to the oil crises in the US. In this millennium, telework arrangement had been appreciated as the September 11 incident in the US.

By definition, telework was known as working away from the traditional office at any time and any place. Further, Shelly et al. (1998) indicated that telework as the capability of individuals to work at home and communicate with their offices by using personal computers and communications equipment and software. Moreover computers and

communications tools had led to telework centers, the virtual offices and hotelling, and the mobile work place (Williams et al., 1999). Teleworkers often used information technology based such as electronic mail, personal computer links to office servers and fax machines (Kurland and Bailey, 1999). The basic needs of a teleworkers were a computer, phone, network, printer, and fax machine to help them in their telework arrangement (Finlay, 1999).

In the western world, telework arrangement had been praised as one of the way of getting work done. Further various benefits could be gained through the telework. The contributing factors of telework toward virtual organization can be listed as below:

- Improve productivity, morale, teamwork, flexibility and work hours (USDT, 1993; Hill et al., 1998).
- Competitive advantage in workforce recruitment and retention, productivity, real estate and office overhead, customer service, and corporate image and goodwill (Anonymous, 1998).
- Benefit for workers with limited mobility, attracted new employees with handicap, increased retention rates, reduced sick time and absenteeism, increased job satisfaction (Knight and Westbrook, 1999).
- Valuable tactic in the fight to hire and retain skilled workers (Straton, 2001).
- Balanced between work lives and personal lives.
- Widen the talent pool of workers to the organizations (Kurland and Bailey, 1999).
- Flexibility where the staffs were able to work regardless of the weather or traffic peaks.
- Reduced workers sick days, absenteeism (Kurland and Bailey, 1999).
- Improved job satisfaction and improved productivity (Kurland and Bailey, 1999; Hill et al., 1998).
- Saved organization's money on leasing costs (Straton, 2001; Schilling, 1999).
- Benefited women due to childbearing age (CNN, 1996).
- Improved organization's social responsibility toward the environment (Lovelace, 1995).
- Reduced energy consumption, environmental degradation, traffic congestion, and pollution (Khairallah, 2001; Straton, 2001).

Conclusion can be made that telework arrangement had brought various benefits to the potential virtual organizations and workers.

METHODOLOGY

A study was conducted over 65 public and private organizations on the motivating factors of telework arrangement toward virtual organization. Out of 150 sets of questionnaires distributed to the head of organizations in the northern states of Malaysia, 68 responded which gave the response rate of 45.3%. The study will identify the determinants in the Malaysian context towards telework arrangement. Likert scale was employed in identifying the degree of agreement of the telework arrangement.

Factor analysis was conducted on the twenty-six motivating factors of the telework arrangements towards virtual organization.

Factor 1: Individual

- Take care of family matters
- Take care of personal matters
- Concern on employees who care for sick child or spouse
- Regularly work outstation
- Work transfer or relocation
- Improved staff retention
- Improved staff recruitment opportunities

Factor 2: Work Environment

- Job flexibility
- Long commutes to work
- Improved morale or motivation
- Distractions while at work
- Congested city streets
- Job satisfaction
- Environmental issues
- Working from home or mobile office

Factor 3: Work Inputs

- Importance of co-workers' input to work function
- Absences from office as trouble free
- Require concentration and peace to do the work

Factor 4: Work Supports

- Amount of face-to-face contact required
- Manage by result
- Discipline regarding work
- Amount of empowerment given to employees for completion of work
- Improved productivity
- Desire to be around people

Factor 5: Work Delivery

- Employees ability to control and schedule work flow
- Degree of concern on quality of work delivered

RESULTS AND DISCUSSIONS

Majority of the respondents were male (57%) as compare to female (43%). The breakdown of the respondents was 79% from public sector and 21% from private sector. Moreover, based on the industry representation were from services (65%), manufacturing (12%), and finance (3%). Table 1 depicted the respondents' profile.

Based on the mean ranking on the organization's head on the telework determinants, they indicated their high concern on discipline regarding work, concentration on work, improvement on productivity, concern on quality of work delivered, and face-to-face contact. On the other hand, they also indicated the low determinants of the telework arrangement as absences from office as trouble free, working from home or mobile office, regularly work outstation, long commutes to work, and congested city streets. Table 2 summarizes the determinants by the organization's head.

Table 1: Respondents Profile

| Item | | % |
|----------|---------------|----|
| Gender | Male | 57 |
| | Female | 43 |
| Sector | Public | 79 |
| | Private | 21 |
| Industry | Services | 65 |
| | Manufacturing | 12 |
| | Finance | 3 |
| | Others | 5 |

Table 2: High and Low Concern of Organization's Head

| High Concern | Mean | Low Concern | Mean |
|--------------------------------------|------|--------------------------------------|------|
| Discipline regarding work | 4.94 | Absences from office as trouble free | 3.09 |
| Concentration on work | 4.82 | Working from home or mobile office | 3.19 |
| Improvement on productivity | 4.75 | Regularly work outstation | 3.28 |
| Concern on quality of work delivered | 4.75 | Long commutes to work | 3.39 |
| Face-to-face contact required | 4.56 | Congested city streets | 3.49 |

Table 3: Independent T-Test Analysis

| Determinant | Item | Mean | SD | Sig. |
|--------------------------------------|---------|------|------|-------|
| Concern on quality of work delivered | Public | 4.65 | 1.00 | 0.014 |
| | Private | 5.00 | 0.68 | |
| Manage by result | Public | 4.57 | 0.90 | 0.065 |
| | Private | 4.21 | 1.37 | |
| Improved staff retention | Public | 4.18 | 0.87 | 0.061 |
| | Private | 4.00 | 1.18 | |
| Congested city streets | Public | 3.36 | 1.16 | 0.094 |
| | Private | 3.86 | 1.66 | |

Cross tabulation between organization and telework determinants, 94% of the respondents indicated a high mark on discipline regarding work. Further, they indicated 91% mark on quality of work delivered, 88% on improvement towards productivity, 86% on amount of face-to-face contact required, and 84% mark on concentration on work.

Independent T-test analysis was conducted on public and private organizations with telework determinants. Analysis indicated only four determinants were significant. The results were depicted in Table 3.

Head of organizations from the public and private sectors indicated their concern on quality of work delivered by the workers. Although the heads accepted the telework arrangement widely, they still look for the quality of work. They also monitored the workers productivity through the results. This situation was in agreement with the nature of the telework that the heads will manage their workers via results not by their actual or physical presence in the office. Moreover both sectors, public and private, said that telework arrangements do improved their staff's retention. Finally, public and private sectors' head needed to concern on the congested city streets. This was tied with the issue of environment in relation to the volume of carbon monoxide being emitted by the vehicles.

Correlations were conducted between factors and telework arrangement is depicted in Table 4. Analysis indicated that telework arrangement and Factor 1 shown the tendency of respondents to take care of family and personal matters, concern on employees who care for sick child or spouse, regularly work outstation, work transfer or relocation, improved staff retention, and improved staff recruitment opportunities. This indicated that respondents were willing to assist the workers in order for them to work and committed to certain family matters while working.

Factor 2 also indicated a positive tendency of respondents to accept telework arrangement in their organization that comprise of job flexibility, long commutes to work, improved morale or motivation, distractions while at work, congested city streets, job satisfaction,

Table 4: Pearson Correlation Coefficient

| Telework Arrangement | Pearson Correlation | Sig. (2-tailed) |
|----------------------|---------------------|-----------------|
| Factor 1 | 0.465** | 0.001 |
| Factor 2 | 0.420** | 0.001 |
| Factor 5 | 0.463** | 0.000 |

** $p < 0.01$

environmental issues, and working from home or mobile office. Head of organizations indicated their support to workers in their work nature.

Further, Factor 5 did indicate correlation with telework arrangement in favor of employee ability to control and schedule work flow, and concern on quality of work delivered. Moreover, head of organizations were liberal in allowing the workers to control, schedule, and deliver their quality works.

CONCLUSION

The organizations indicate their consideration towards becoming a virtual organization on the idea of telework. Moreover, their main determinants are on quality of work delivered, manage by result, improved staff retention, and concern on congested city streets.

It is the best interest of the head of organizations in Malaysia to initially make the move to implement the telework arrangement. The implementation of the arrangement will benefit both the individual worker and the organization in the long run. With the current tension and aggression from the terrorists in various places, telework arrangement can be the alternative to the workers to work at home. This will minimize the risk of being the target of terrorists and also to ensure their safety. Most of the office works will be carried out from their home and transmitted to the organization for further authorization or implementation.

The workers quality of work life and family life can be improved as the organization implemented telework arrangement. They can spend most of their scheduled time with the family members. The well being of the teleworkers needs to be taken care off as they will be working in isolation in their home. Therefore certain training needs to be given to the workers prior for them to choose the telework arrangement.

Nevertheless, telework arrangement does provide a good platform for organizations to move ahead with their vision in becoming a virtual organization. Further, the organizations can be sure off that they can keep pools of valuable and knowledge workers in their organization towards the business and globalization challenges.

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REFERENCES

- Anonymous (1998). The 3 Whys of Telecommuting, April 7, TSI Services, Inc.
- Cable News Network [CNN] (1996). "Demand for Mobile Devices on the Rise," *Computimes Malaysia*, September 11.
- Finlay, Michael (1999). "Making a Telecommuting Wish List," *Computer User*, Minneapolis, August, Vol.8, Issue 8.
- Lovelace, Glenn (1995). "Creating the Framework for a Mobile Workforce," *Telesis*, Ottawa, October, Issue 100.
- Hill, Jeffrey E., Miller, Brent C., and Weiner, Sara P. (1998). "Influences of the Virtual Office on Aspects of Work and Work/Life Balance," *Personnel Psychology*, Durham, Autumn, Vol.51, Issue 3.
- Khairallah, Khalil (2001). "Get a Life, Leave London," *New Statesman*, Vol.130, Issue 4526, 02/26/2001.
- Knight, Pamela J. and Westbrook, Jerry (1999). "Comparing Employees in Traditional Job Structures vs. Telecommuting Jobs using Herzberg's Hygiene & Motivators," *Engineering Management Journal*, March, Vol.11, Issue 1.
- Kurland, Nancy B. and Bailey E. Diane (1999). "Telecommuting: The Advantages and Challenges of Working Here, There, Anywhere, and Anytime," *Organizational Dynamics*, New York, Autumn, Vol.28, Issue 2.
- Schilling, Stephen L. (1999). "The Basic of Successful Telecommuting Network," *HR Focus*, New York, June, Vol.76, Issue 6.
- Shelly, Gary B., Cashman, Thomas J., Waggoner, Gloria A., and Waggoner, William C. (1998), *Discovering Computers 98: A Link to the Future*, Course Technology, Massachusetts, USA.
- Straton, M.C. (2001). "Public and Private Approaches to Telecommuting," *FDCH Congressional Testimony*, 9/6/2001.
- U.S. Department of Transportation [USDOT] (1993). "Transportation Implications of Telecommuting," Washington DC: Author.
- Williams, Brian K., Sawyer, Stacey C., and Hutchinson, Sarah E. (1999), *Using Information Technology: A Practical Introduction to Computers & Telecommunications*, 3rd. Edition, Irwin McGraw-Hill, United States of America.

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