

Research on Policies to Support Telecommuting in China

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ABSTRACT

Telecommuting (or Telework) is now relaxing more and more workers from traditional 9-to-5 routines in many countries. In this paper, we do some research on China's actuality, and try to give out some reasonable suggestions to support Telecommuting, on the basis of learning from the developed countries.

Keywords: Telecommuting /Telework, advantages, government, policy

1. INTRODUCTION

Telecommuting (or Telework) is a work practice that entails working at least some of the time, often conceptualized as remote working supported by information and communication technologies (e.g. Gray et al. 1993).

Early definitions characterized telework as working away from a traditional office (Grant, 1985; Kelly, 1985) or at home (Regeneye, 1985). Later definitions were broadened to include the use of information and communications technologies (ICTs) (Holti and Stern, 1986; Oslen, 1988).

The emergency of the telework has various reasons. For example, Knowledge workers are separated from line-workers and needn't always stay in their offices. At the same time the rapid development of communication technologies also made it possible for the companies to implement telework, such as e-mail, faxes and messenger.

Globalization and the establishment of multinational organizations have increased the distance between physical flows (concerning production, distribution and consumption of products) and information management and are enlarging the distance between business branches, also between producers and buyers. Employees, who are not on the same worksite, perhaps in the different countries, cannot contact each other face to face everyday. All these call for a kind of more flexible and convenient work style--- Telework.

Also, telecommuting was driven by concerns about traffic congestion and pollution in densely polluted areas such as southern California and telecommuting was treated as a means to reduce the expense of maintaining office space. More recently, organizations have begun to view telecommuting as a tool to attract and retain top personnel in fields with short labor supplies.

In the 1980s, the first telecenters were established in Europe. Ten years later the emergence of the digital

economy vastly expanded the potential for performing jobs in telework arrangements. In the 1990s the U.S. federal government also instituted a government-wide telework pilot project, and many states and local governments, as well as private-sector corporations, instituted telework programs and published results from their experiences. Today, with the proliferation of technology in the workplace, telework is one of the fastest-growing policies promoted by savvy employers. The 2000 Telework America Research Survey estimates that the number of teleworkers in the U.S. has increased by 2.8 million since 1999, bringing the current total to 23.6 million. Gartner Group predicts that more than 137 million workers worldwide will be involved in some form of remote work by 2003.

In the Office of Personnel Management's (OPM) 2003 report to Congress on the status of telework in the federal government, the Director of OPM described telework as an "invaluable management tool which not only allows employees greater flexibility to balance their personal and professional duties, but also allows both management and employees to cope with the uncertainties of potential disruptions in the workplace, including terrorist threats."

In this paper, our main interest is to give some suggestion for government and local authorities to support telecommuting based on china actuality.

2. DIFFERENT TYPES OF TELECOMMUTING AND THEIR ADVANTAGES AND DISADVANTAGES

2.1 Different types of Telecommuting

A meaningful classification of telecommuting for the purposes of the present article is based on the geographical location of the workplace.

- Satellite work centers;
- Neighborhood centers;
- Work at home; and
- Mobile work.

Satellite work centers are self-contained organizational

units belonging to companies; it's in some sense a branch. The relocation of such units is made possible by the separation of functions in modern organizations and by the possibility of integrating shared facilities, such as databases, through information technologies. The advantage of such relocation exists in the possibility to reduce office costs in the headquarters, usually located in central areas of the cities, and in the reduction of commuting for employees, and also for the customers. It's equipped with office furniture and equipment provided by the firm, and administrative help may be available.

Neighborhood centers, different from satellite offices, are remote offices for employees from several organizations, which share space and equipment. The location of such offices is not driven by the need to realize economies of scale. Therefore employees can choose to work in the neighborhood centers that are closest to their homes. The employees are sufficiently independent in their work and the employers can rely on remote control and communicate with them. A network of neighborhood centers is also a good support for the communication between itinerant employees and their headquarters. Office suits may be furnished by the site owner or by each renting firms.

The establishment of neighborhood centers may be critical for the development of some suburban areas, especially those that are suffering problems of unemployment. In these areas a neighborhood center may support the diffusion of computer knowledge and promote new activities and latent potential.

Work at home refers to employees who work at home on a regular basis, though not necessarily every day. It is the most common interpretation of telecommuting. Teleworkers need communication medias such as telephone, electronic mail, personal computer links to office servers through ISDN lines, and fax machines.

Home Telework does not provide the social interaction that a satellite or neighborhood working center would theoretically provide, but could provide employees with extreme flexibility in schedule and lifestyle. It would allow employees to decide autonomously when and where they want to work and how they wish to accommodate childcare and other family duties. Work at home also offers new job opportunities to the elderly and the handicapped.

In contrast to the three above, mobile workers are frequently on the road, using communication technologies to work at home, in a car, in a plane, or at a hotel—communicating with the office as necessary from each location. It gives employees the chance to accommodate their personal/family life as well as work responsibilities. Therefore, mobile workers should have a good access to information networks anywhere.

2.2 Advantage and disadvantage of telecommuting

These alternative work forms bring both advantages and disadvantages to organizations, individuals, and society. We will discuss them on the assumption that the teleworkers is away from the office a significant percentage of working time. The impact may diminish if telework is just a small fraction of normal working time. First let's talk about the advantages.

From the organization's perspective, telecommuting provides an opportunity to improve workplace productivity. Also, it enables them to cut cost related to office space, as well as to address space constraint. Besides, it widens the talent pool available, improve recruitment and retention of employees by providing workers with flexibility that allows them to keep their jobs in the face of external demands or desires. Finally, the organizational advantages cover a wide spectrum, including behavioral outcomes, productivity, and legal issues.

From the employees' viewpoint, they will have greater job satisfaction and higher work performance ratings. First, it greatly reduces the time and money spent on commuting, eliminates the necessity to relocate. Second, it provides employees with a relatively distraction-free environment, greater schedule flexibility and autonomy. Third, they and their families can benefit more from the new work/family balance.

To the entire society (table1), telecommuting can decrease traffic congestion on strained highways and reduce automobile-related air pollution-although its impact may be negligible if only a few people telework. Further, teleworkers discourage community crime and spend more time building community ties.

On the other hand, several shortages may hamper the willingness to integrate telecommuting into traditional office environment.

To the organization, there are problems from two points. For managers, the main problem is their inability to physically observe their subordinates' performance. Secondly, the difficulty to create team synergy, because telecommuting will negatively affect the social network by disrupting teamwork and so on. The other issue concern developing and transmitting organizational culture, a virtual culture is needed and clear telecommuting policy guidelines should be established.

To the employees, probably the most commonly expressed challenge of telecommuting is overcoming the isolation caused by the separation of the telecommuter from the social network in the traditional workspace. Besides, teleworkers should overcome the challenges of maintaining access to resources at work, and they need to be more technically savvy than their

office peers, since support services are not accessible on-site.

To the society (table 1), telecommuting does pose some challenges. Telework may cause a gradual degradation of a person's ability to interact with others in a personal,

intimate and human manner. This may at last change the nature of social intercourse. The main issue is to establish telework culture, zoning regulations that forbid business parcel delivery within residential neighborhoods.

Table1: Societal Advantages and Challenges of Telecommuting

	Advantages	Challenges
Home-Based Telecommuting	<ul style="list-style-type: none"> ●Less traffic congestion ●Less pollution ●Less neighborhood crime ●Greater community involvement 	<ul style="list-style-type: none"> ●Telework culture ●Loss of ability to interact with others
Satellite Office	<ul style="list-style-type: none"> ●Less traffic congestion ●Less pollution ●Greater community involvement 	
Neighborhood Work Center	<ul style="list-style-type: none"> ●Less traffic congestion ●Less pollution ●Greater community involvement 	
Mobile Work		<ul style="list-style-type: none"> ●Telework culture

Source: Nancy B. Kurland, Diane E. Bailey[15]

Table 2: Policies used in some developed countries and their Effects

Countries/ areas	Relative policies	Number of teleworkers	Effects
America Washington	The federal government and some of the largest businesses there are urging more of their employees to stay home.	About 15% of the region's 2.6 million employees work from home, up from 250,000 five years ago. They telework at least 1 day/month in 2003, with most averaging 1.5 days/ week according to the Metropolitan Washington Council of Governments.	If the effort's goal is met, 17,000 daily vehicle trips and 550,000 vehicle miles could be eliminated by June 30, 2005.
America	The American Disabilities Act (ADA); The Clean Air Act of 1990; The Family Leave Act of 1993.	Approximately 23.5 million teleworkers in the United States compared to 11.6 million in 1997.	The average business can save \$5,000 by reducing its workspace. (Said by Bob Smith, executive director of the International Telework Association and Council)
Toronto, Canada	A Toronto telework plan offering corporations free telework consulting and training help.		
Austin, Texas	Use a Web-based service to allow employees to telework at home, in order to improve poor air quality on July 2002.	Approximately 400 employees telework about one day a week through the program. The city has set a goal of 600 employees work from home one day/week by the end of the summer2003. Within two years, Austin officials want to see the total rise to 1,000.	Austin officials hope that telecommuting will help reduce the total vehicle miles traveled by its employees by 15 percent over the next five years
Malaysia	Amend the Employment Act 1955 to include new flexible employment regulations.	Prime Minister Datuk Seri Dr Mahathir Mohamad said the group's involvement in the workforce in 1995 was 43.5 per cent and 45.7 per cent in 2003.	Enable women's participation in the labor force and enable them to juggle between work and family responsibility.

3. TELECOMMUTING AND POLICIES SUPPORTING TELECOMMUTING IN SOME DEVELOPED COUNTRIES

Mainly the sales and financial management industry led the way for telecommuting, however, over the past few years much other business in U.S. have begun to implement telecommuting arrangements in several large cities. In Denver, Colorado, Bethesda, Maryland and Charlottesville, Virginia, IBM has furnished employees with furniture and equipment to work at home when they

are not in the field with customers. Recently, Ernst and young initiated in their Chicago accounting and consulting operation in 1992 "hoteling". According to the UC-Davis study, in the first year Ernst & Young reduce space requirements by 7 percent, and the company expects to eventually shrink its office space requirements nationwide by two million square feet for saving of \$40 million a year.

Since the implementation of telecommuting can also bring benefit to the whole society, so it is necessary for

the government and local authorities to do something useful to support telecommuting.

In general, there are four primary forces that will benefit the public interest in promoting telecommuting: the environment, the transportation demand, economics, and quality of life. Some developed countries have made some policies to support telecommuting. (Examples: Table 2)

National governments in the European Union advocate telecommuting both as a means to reduce traffic congestion and increase women's labor force participation. Throughout the European Union, an average of 60% of employees shows an interest in it. The interest among those looking for work is even stronger. Employers giving their employees the opportunity to telecommute may be regarded as attractive.

In Singapore a study of 285 employees of an IT company confirmed that employees would be less likely to end the employment relationship if the company offered telecommuting as an option. Experimental research with students reaffirmed the claim that the concept of telecommuting will attract well-qualified individuals to join the organization.

In U.S., Equal Employment Opportunity Commission (EEOC) encourages work at home (telework) as a reasonable accommodation. If the disabled employee is able to perform the essential functions of the job at home, then telecommuting may be a required accommodation--unless the employer can find a way to accommodate the employee's disability otherwise or prove that telecommuting would cause undue hardship on the company.

3. SOME SUGGESTIONS BASED ON CHINA ACTUALITY

Based on the analysis of china actuality, there are some reasons for implementation of telecommuting and corresponding suggestions.

3.1 Attract elitist

China is a developing country and is developing very quickly. Especially during recent decades, the development of global information technology and the globalization accelerate china's speed to infiltrate the whole world. From the whole world, telecommuting makes it possible for the Chinese companies to attract more elites both at home and abroad, especially the ones oversea. The basic policy of government for supporting telecommuting is constructing, improving and perfecting the information speedway.

West development strategy is very important to the Chinese economic growth. In those regions, one of the big problems of economic development is lacking of

human resources, elites. Human resource is crucial to a country's economic growth. In contrast to cities in west and west middle regions, the developed cities in east regions following the line of the sea are full of all kinds of specialists. Although, there are a lot of persons of noble aspirations and young people full of passion have eagerly responded to the national call and devoted to the West and Middle West regions. Relative to the rich human resource in east regions, the number of persons who have devoted themselves to the development of West and Middle West is still very small. The reasons are various, but one is that because of less developed, the living standard in those regions is inferior to the East regions, especially the big cities of East regions following the line of the sea such as Shanghai, Shenzhen and so on, more people will choose to work or settle in developed regions in stead of West and Middle West regions, especially those whose hometown is far away the West and Middle West. How to attract those people work for the companies that site in the West and Middle West regions? The implementation of telecommuting comes up with the solution. For example, the company can provide the employees opportunities to work at their own places; these places may be the employees' home, the office in another city, or a telecenter.

In order to support telecommuting for such kind of reason, the government and local authorities can provide tax exemption or preferential duty. The beneficial tariff can be various. They can provide the beneficial tariff according to the ratio of the number of telecommuter versus the number of whole employees, also can according to the ratio of time which spent in work by telecommuting versus the whole time spent by the whole employees in the whole company work. The government and local authorities can also provide the telecommuters some kind of subsidy, which not only can encourage more people to work for those companies but also can lighten the financial burden of those companies.

3.2 Consideration for Female employees and disabilities

In China, more and more women accept high education and the percentage of female employees is very high.

Different from male, female have the responsibility to procreate and most women want to be a mother. Because of inconvenience of pregnancy and traffic jam, many pregnant women give up their job. Furthermore, many new mothers after giving birth to a baby still can not go back to work; sometimes they have to look for another new work, sometimes they have to take care of their new-birth baby. As far as the companies which the pregnant women have worked for concerned, on one hand they want to retain those experienced employees, on the other hand they can not accept their a long-time-leave, because sometime the off-work time will reach one year. Now, the Information Technologies (IT) and Information System (IS) provide opportunities

for organizations/companies to provide telecommuting to their employees who need such kind of work arrangement. So the telecommuting cannot only benefit for the company but also the pregnant employees and new mother employees. The move which would see changes in women's workload, employment schedule and the facilitation of "telework" at workplaces is to enable women's participation in the labor force and enable them to juggle between work and family responsibilities.

In view of situations above, the government can take some measures to encourage or to say, to some degree, oblige some companies to implement telecommuting. For example, when a female employee has been pregnant, and by carefully redesigning, her work can be done at home, if the employee applies for working at home, the employer cannot refuse. Once the employer fires the employee for this reason, the employer should be punished. This is a measure to protect women's right.

The Chinese government always pays attention to the disabilities' right and employment. The government encourages welfare organizations to centralized arrange disabilities' employment by tax exemption or preferential duty. At the same time, the government has set a certain hired disabilities ratio and required all the companies should employ a certain number disabilities according to the ratio. It is believed that by implementing telecommuting, more and more disabilities can find a job, especially for those who have difficulties in traveling.

With the increase of population in cities, communications has been becoming more and more crowded. Quite a number of employees have to spend two or more hours going to the office building from their home and back, not to mention when meeting the traffic jam. So, working parents may highly value the time-savings of telecommuting due to the elimination of commuting time, or because telecommuting may allow a parent to stay at home with a sick child.

As far as many medium-sized and small enterprises are concerned, on one hand a lot of tasks are suited to telecommuting, on the other hand, at the present, they have not the ability to spend a great deal of money to equip their offices and their employees' home offices. Furthermore, the most important is that they worry about the data security. Under such kind of condition, the government itself can build several telecenters or organize several big companies to set several telecenters. And any companies that need telecommuting arrangement can rent some offices in these telecenters. Many people may have noticed that managers are more likely to accept a new program or innovation that has been widely and successfully used by other managers. So I think, in order to encourage all kinds of organizations to implementing telecommuting, the government department should be the first to set telecommuting arrangement and become an example in successful implementing telecommuting. For example, the

government can set a plan includes a goal to increase the percentage of government employees that telecommute to 6 percent by the end of some year say 2005. Another benefit of this measure is that once the telecommuting is successfully implemented in the government departments, which can provide experience and example the official who make the support policy and let him or her make more wise decision and more practical policy.

In spite of measures mentioned above, the government can also provide free training or financial support for the companies that are planning to implement telecommuting. For example, the government and local authorities may make budgetary allocations for installation of telephone lines, computers and related equipment and monthly funding the telecenters.

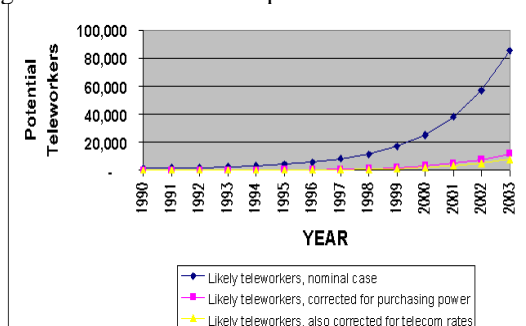
Certainly, the government and local authorities can provide various specific support policies (such as preferential telephone rate) for telecommuting implementation according to different conditions. Whether telecommuting in one company is suitable is akin to the employer, the employee and the task. For example, telecommuting is not suitable for employees who require intensive face-to-face interaction with coworkers and customers, or who require physical resources to handle their work.

In China, the environment to carry out telecommuting has not yet been well established. Although telecommuting is expected by the experts, for instance as a solution for the traffic congestion in the urban area, the concept of telecommuting has not spread over the peoples. So, from now on, not only the establishment of the telecommuting environment but also activities for recognition and enlightenment of telecommuting will be needed.

Several environmental factors are in place in China that would lead to successful implementation of telework programs. These include a proliferating telecommunications industry, more direct foreign investment and lifted trade restrictions that have created more jobs.

Although data regarding telework in China are very scarce, someone has made some predictions of the growth of telework, based on decades of experience in the US. The current forecast is shown in figure 1.

Figure 1: Estimated development of telework in China



Source: http://www.ecatt.com/country/china/inhalt_cn.htm

6. CONCLUSION

Implementing telework programs in China's public and private sectors could result in increased productivity with a declining workforce. Home-based telework programs could be the first solution for childcare and eldercare anxieties, and mobile telework can also play an important role.

In order to successfully implement telecommuting, the government must play an active role to help and encourage the companies to establish such kind of new work form.

Firstly, the government should help employer identify the jobs best suited to distance work. Some work lends itself naturally to off-site arrangements, such as sales, customer service, and auditing.

Secondly, the government should help employer approach telecommuting carefully by screening workers to determine eligibility and providing training in commonsense ways to avoid the potential risk of technological and financial failure of telecommuting program, decide which kinds of employees are suited to telecommuting, which kinds of employees are motivated, trustworthy and able to work independently.

Thirdly, the government should help employer develop guidelines, including approved reasons for telecommuting, using a personal vehicle for company business, and so on.

Finally, the government should help employer provide his or her employees an appropriate telework office with higher-speed broadband, cost-effective video that in a space totally dedicated to the work at hand and designed for comfort and injury prevention.

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