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# Empirical research findings on telework: Management experiences and attitudes

**Tamas Forgacs**

*Hungarian Telework Association, Hungary*

e-mail: [forgacs.tamas@gmail.com](mailto:forgacs.tamas@gmail.com)

Based on the technological progress and the complex work processes of our increasingly globalised world, novel ways of organising work can be seen everywhere. The EU has defined atypical forms of employment as breakthrough points in improving employment indices.

Telework is probably the the most innovative atypical working form, offering huge amount of benefits for the employer, employee and the society. Gaining a deeper understanding of employment trends and employers' decision-making mechanisms, we can understand the specifics of this spreading working form, and we can use this knowledge to stimulate the employment trends.

This study summarises the finding of an empirical research among medium and large enterprises in Hungary using telework.

**JEL Classifications:** E24, J21

**Keywords:** Telework, employment, regional development.

## Introduction

The world of employment is undergoing radical transformation due to technological progress and the establishment of information society. While the number of traditional jobs is on the decrease, employers are on the lookout for ever newer - and possibly cheaper - employment alternatives to maintain or to strengthen their positions in the global competitive environment.

Based on SIBIS (2003) research the number of teleworkers employed in EU member states was 13% on the average, with the same index in the USA showing 25%. The research project an annual 20-30% growth.

If one understands the spread of telework, it becomes possible to create a proactive environment by conscious planning - an environment where social demands would harmonise with corporate requirements, whereby the spread of telework could be promoted on a sustainable basis of economic rationality. Based on the SIBIS project results and knowing the experience of Western countries (Clear, 2005; Valsecchi, 2006; Hislop, 2007; Martinez-Sanchez, 2007), a significant progress of telework can be projected in Hungary and Central and Eastern Europe.

Trends of the spreading of telework could - with conscious planning - help achieve the goals of regional economic and employment objectives. Using telework is primarily a decision made by employers, which could, however, be positively affected by an appropriately motivating environment. A system of incentives can only be successful if it supports employers' decision-making processes with positive elements, and creates a sustainable environment. To get to that point, though, one should first of all establish the advantages and disadvantages perceived by employers, the industries and jobs, which employ telework, and present telework employers' primary objectives. By getting to know presently existing telework employment practices and the opinions of decision-makers, incentive strategies can be established to reinforce positive employers' decision-making factors, while cutting down on the possible hindrances of the spreading of telework. This study wants to contribute to this process.

## Research methodology

The survey of the empirical research was conducted in Hungary between April and May, 2008. The evaluated population was a simple random sample of companies employing at least 50 people, based on the data of the Hungarian Central Statistical Office. We used a screening questionnaire when recording the data to ensure that only companies which satisfy the research criteria could be included. The screening question was, wheter they either use telework presently or they are

planning to introduce it in the near future. The same screening questionnaire was used to establish the main reasons of companies that exclude telework for doing so.

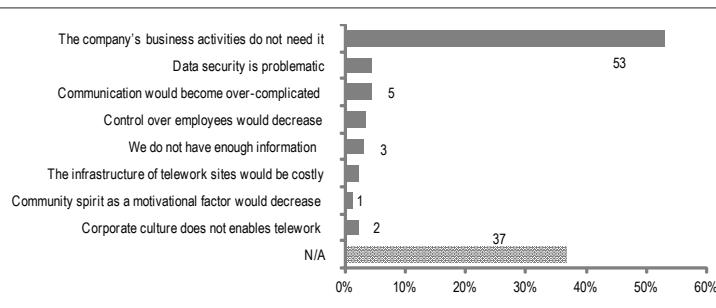
The rate of corporations employing more than 250 people made up about one third of the sample (32%), while companies employing between 50 and 249 people represented 68% of the population. Although most of our interviewees were HR or personnel managers, it was the financial directors that answered our questions at one-fourth of all companies.

## The general frameworks for utilising telework

Based on the research findings, 14% of the relevant companies (that employ 50 people or more) use telework presently, and around a further 1% is the rate of those willing to introduce it in the near future. 95% of the 100 companies in our sample presently use telework, with a further 5% planning to introduce it in the near future. In other words, the overwhelming majority of the interviewed companies have already had telework employment experience.

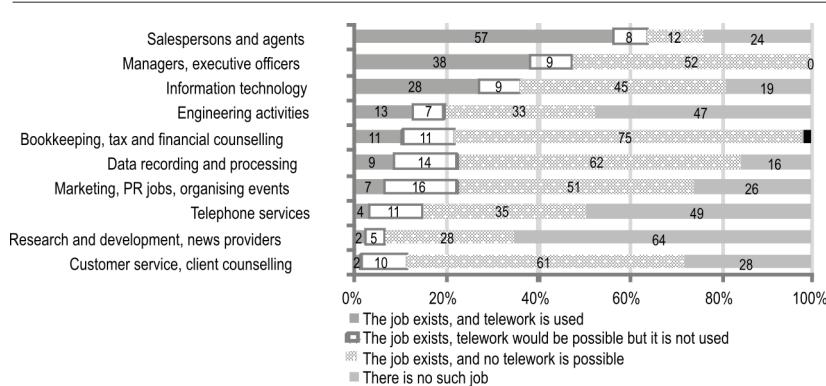
In addition to the 100 companies included in our sample, we contacted 373 more companies that neither use telework presently, nor plan its introduction within the next 2 years. Our screening questionnaire was used to survey the main reasons for their saying no to telework.

FIGURE 1. MAIN REASONS FOR REJECTING TELEWORK



Source: the author

FIGURE 2. USING TELEWORK IN VARIOUS JOB TYPES



Source: the author

According to the majority of these companies, their activities either do not need telework or the types of work performed would disallow its application. It is important to highlight the fact that over one third of the companies rejecting telework could not name a single reason why they refused to use it, or why they did not plan on introducing it. This means that the companies are under-informed about the telework possibilities. There were other reasons sporadically mentioned: a few companies saw the question of data security as problematic, while some thought communication would become over-complicated.

The next phase was to survey which positions are the most suitable for telework. We have supplied categories of jobs and analysed the present rate of using telework in each, together with the unexplored potentials (meaning a certain kind of job exists, and telework would be possible, but still remains unused).

The types of positions where the use of telework is most widespread are those of salespersons and agents, which decisively belong to the category of mobile telework. In such cases, it is mostly the character of the job that defines the possibility of applying telework.

The second major group of telework can be observed with managers and executives. In their case, home-based telework is mostly dominant, which is less based upon the character of work they perform. With top managers, employee satisfaction is the prime grounds for introducing telework - this is supported by the research findings derived from our qualitative interviews.

*"It is mostly knowledge workers that we're talking about here, they're generally very valuable staff members whose replacement would take a lot of energy, time and expense. Look, we're satisfied with their work, we'd like to keep them, so if there're life situations - young mothers, people working on home construction or remodelling, and similar things - why shouldn't we support it when we can?"*

(Source: interview)

Over a quarter of companies employ IT workers within the framework of telework, more than in any other positions. Other fields where telework has a significant gain are engineering, bookkeeping, data entry and data processing.

With managers and executive officers, the highest yield of telework comes from companies in the business of commerce, while it is managers of industrial production companies who are the least likely to benefit from the use of telework opportunities. Salespersons and agents - at the top of the list - are mostly employed by corporations of commerce or industrial production; service sector shows a much lower turnout in this category. With IT staff, engineers and bookkeepers, however, the highest telework rate can be seen precisely in service sector, and it is industrial production where one can see the lowest rates.

Examining the potentials for telework we found, that the managers think it is with about 10-15% of all work that could be performed by telework where it is not yet applied though. Quite naturally it is this group that would favourably react to an increase of telework arrangements by incentives.

Another significant finding is that regarding positions other than sales and agent positions, the sampled companies mentioned that they did have such jobs but they thought telework was impossible. They mentioned the above more often, than that they had such jobs and telework was possible. This opinion could partly be based upon the general lack of information regarding telework, since experience suggests most knowledge-based activities can benefit from at least a partial application of telework with a minimal transformation of work processes. This is also supported by the fact that the same jobs are performed at a significant portion of companies using telework. Therefore sharing knowledge regarding the practical experiences of teleworking in specific jobs is of paramount importance with companies which for the same specific jobs do not think that telework is suitable.

## Introducing telework

One can draw the conclusion from the findings that it is mostly the number one CEO of the company that makes a decision on introducing telework, however, at all companies where telework is already used, the direct superior of the candidate teleworker may also suggest telework employment (in 28% of all cases), while personnel or financial managers/directors may also start the initiative (in about one fifth of all cases). It is only at 18% of company cases where employees themselves can request telework employment. Our qualitative interview research module showed however, that with larger multinationals it is mostly managers who will assign any particular position where the use of telework is contemplated and it is employees who should apply for it. Giving the permit for telework to any particular employee, however, is usually the prerogative of the central executive officer of the company. Financial directors, regional managers or HR managers can only permit telework arrangements in 10% of companies.

Most companies where telework is possible for certain positions will inform new employees when they sign a new work contract. Direct superiors of the staff members already working at positions that could be transformed into telework can provide the best information regarding opportunities for using telework.

Introducing telework may mean quite a complex task for a company, involving far more than just operative management - e.g. personnel and labour, law, tax and IT-questions must be answered - while the necessary transforming of the processes of work organisation may also yield unforeseen cuts in expenditures or costs. As such, it is far easier to introduce telework if a clear plan is made on the future effects of telework, on finding possible modifications and specific risks, and on the ways to handle them. Despite that, only a quarter of companies prepared analyses on the possible consequences the introduction of telework could have upon the development of the company's expenditures. A slightly lower number of studies were undertaken on work efficiency, as well as the tax, labour and legal environments required by telework. The area least surveyed by companies was employee satisfaction and its projected changes. About one-tenth of companies surveyed said they would use some materials or studies prepared by experts when introducing telework.

Our interviews show that most companies have an internal project team consisting of insider staff members who work on defining the steps to take in the introduction of telework - this way of introducing telework is not necessarily tied to the use of surveys or studies.

“We called all those together that may be involved in some way or another, e.g. our Financial Director, our legal expert, our salary accountant, some project managers, a couple of staff members who are already doing telework, and we held a brainstorming session to define all the areas where it could be introduced. We assigned a manager to be responsible for the whole thing (...) then we gathered together every week (...) to define all further questions we still had to answer, which would still require some work.” (Source: interview)

Most companies believe it is cuts in employment taxes and contributions that would have the most stimulating effect upon the expansion of telework, however, subsidised wages and tax cuts also look very attractive. The above findings show that the most popular solutions target cuts on the costs of labour, based upon cutting down on the burdens imposed upon the wages of such employees. Over one half of companies thought they could use some one-time expenditure subsidy or non-refundable assistance. Many interviewees brought up the forms of assistance they would like to see implemented.

“There are some direct means, like those we have applied for: if they would financially support or give material incentives to employers that are willing to use such work. It could also be done by indirect means, for example, you would pay less Social Security or other contributions on wages if your employee did telework.”  
(Source: interview)

We asked them to provide their main reasons for the introduction of telework during the interviews, since this topic requires some in-depth explanation. It is generally valid that with most large corporations queried, the main reason for introducing telework is not cost-effectiveness, rather, their wanting to increase employee satisfaction, and their need to retain - or find - well-trained staff. This is especially true with segments and jobs where there is a lack of well-trained staff with valuable experience.

## **Experiences with and attitudes towards telework**

The following topic of our questionnaire attempted to pinpoint the experiences and the attitudes decisive in employers' decision-making processes. The basis of the survey were the strength and weaknesses of three dimensional SWOT analyses which were collected based on a comprehensive paper research (Gajendran, 2007; Teo, 1998; Perez, 2002; Hill, 2003; Lee, 2007). Mapping and analysing the advantages and disadvantages of telework could mean an important step forward, as it is these factors that may promote the chances of decision-makers to arrive at telework solutions - given a favourable environment.

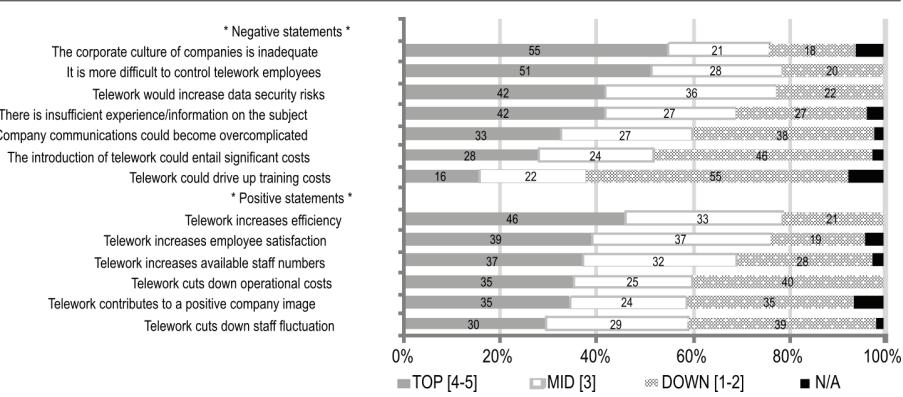
The majority of respondents judged the effects of telework positively. Half of the queried decision-makers mentioned an increase in the efficiency of work through the introduction of telework solutions, and the number of those that gave an account of lower costs and increased employee satisfaction was no less. About one quarter of respondents said neither efficiency, nor company expenditures changed after the introduction of telework, and only 7% said that they gave an account of negative experiences.

Most respondents at the companies surveyed in interviews mentioned that both the efficiency of work and employee satisfaction have increased since the introduction of telework.

"I think those people that can do it and who could use it well could use their time much wiser, more efficiently, plus they could afford to spend quality time with their work. Quality time is found less at the workplace, since performing work can be interrupted any time for any reason. (...) I think it is generally more efficient, based on feedback from colleagues; but obviously, that depends upon what kind of job you're doing." (Source: interview)

I examined the opinions of company decision-makers on using telework. Respondents could evaluate to what extent they agree with the given statement on a scale of one to five. The Figure 3 adds the responses that said "completely agrees" to "agrees" (top), while the responses of "complete disagreement" were in turn added to "disagreement" (bottom).

FIGURE 3. ATTITUDES TAKEN TOWARDS TELEWORK (ON THE EMPLOYERS' SIDE)



Source: the author

Over half of respondents agreed to the reason why telework solutions may be inadequate is because "the corporate culture of companies is inadequate." Another affirmation that correlates with this is that most companies have insufficient information on how to organise telework, and that this is a relatively new way of performing work in Hungary. Some respondents have mentioned in interviews that telework is not well recognised in the general thinking of society.

"You still ought to see that it's a cultural factor with Hungarians: work equals to getting up and going to your place of work. I think a general change in attitudes and philosophy is needed for it to spread wider." (Source: interview)

Over half of respondents thought telework involved more control problems over employees. Two fifths of respondents added telework solutions would also increase data security risks. 63% of respondents agreed to the statement that there is far too little available information on telework. Respondents also alluded to this lack of information in the interviews.

"I think primarily this should be [assisted] by providing more information, not money. (...) For example, a Telework Manual could be written which tells you, 'listen, we recommend telework for this kind of jobs or that,' and it would also state the types of risks one has to face with each job type." (Source: interview)

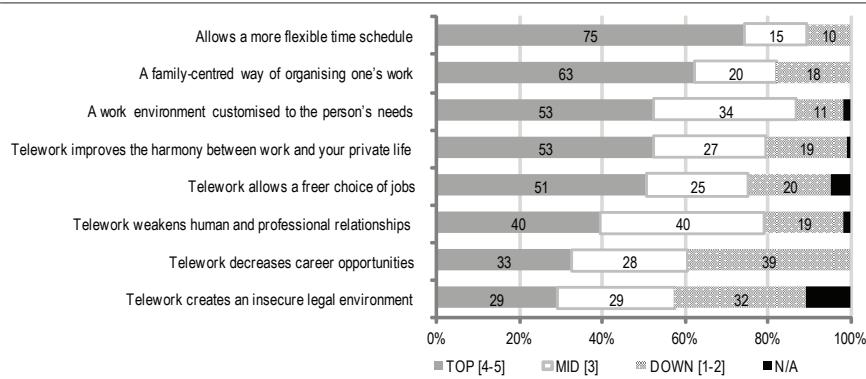
Thanks to the penetration of developed info-communications technologies, the view that company communications would become overcomplicated with telework has shown up only at one-third of all companies, and even fewer companies thought its introduction would either entail significant expenditures or lead to increased training costs.

Among all positive (supportive) statements, the most widely agreed upon was the one that telework would increase efficiency. Less than 40% of respondents agreed to the statement that telework would increase employee satisfaction. Despite that, the qualitative phase of research clearly showed that telework contributed to employee satisfaction - the very reason for its initial introduction at large corporations.

"If we make slight improvements in a staff member's working conditions, if they can feel the company is positively influencing their circumstances, then maybe these colleagues will become more satisfied and would rather choose to keep on working for us in the future." (Source: interview)

Corporate decision-makers have emphasised the positive effects of telework upon employees. The Figure 4 provides the findings of an analysis of telework's effects on employees.

FIGURE 4. ATTITUDES TOWARDS TELEWORK (ON THE PART OF EMPLOYEES)

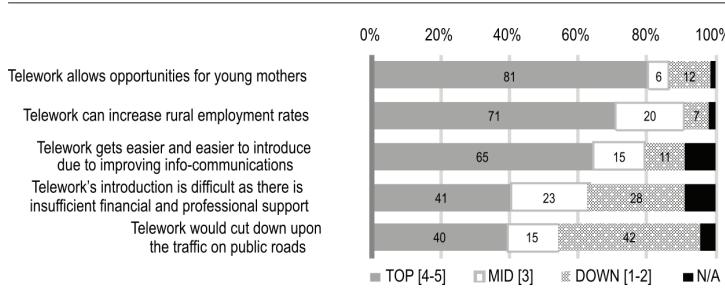


Source: the author

Three quarters of the decision-makers of the queried companies have agreed to the statement that telework allows employees to have a flexible time schedule, and the majority have agreed that telework is a more family-centred form of work, which improves the harmony of work and private life, providing a work environment customised to the worker and allowing a freer choice of jobs. These opinions were also reflected in our interviews.

“Let's try and provide opportunities towards the fulfilment of every staff member wherever they can be fulfilled. If she can only get fulfilment if she also fulfils a mother's role, we have to let her take her children to kindergarten in the morning, go and to pick them up when necessary, and when the kids are asleep at 8, she could still access our email system to answer all the mails she couldn't between four and eight. That's what I did myself last night. I think that builds an incredible sense of devotion and loyalty in one.” (Source: interview)

FIGURE 5. ATTITUDES TOWARDS TELEWORK (SOCIAL FACTORS)



Source: the author

One of the main negative arguments against telework, namely that it would weaken human and professional relationships, was actually not shared by many of the respondents. The interviews have shown that several companies already using telework take conscious steps to prevent these negative effects from happening.

“Its main drawback is a degradation of human relationships, but this is precisely what we're trying to counteract by doing a lot of things, such as team building activities. It already matters to a lot of people that, say, we have breakfast here together every week.” (Source: interview)

The Figure 5 shows opinions on the effects of telework upon society. Most respondents agree that telework would create more opportunities for young mothers and also improve rural employment rates. Due to the high rate of penetration of info communication in society and that of the services needed for telework, most CEO-s agree it is getting easier and easier to introduce.

The statistics show that it is on the side of social advantages where the most positive expectations are encountered regarding telework, directly followed by employers' attitudes, while the corporate decision-makers surveyed saw the least amount of advantages on the side of employers.

## Telework centres

Within the types of telework, it is telecentres that come closest to conventional employment, and thus corporations may consider these as a first step. A telecentre functions almost as a satellite office, allowing for the establishment of a work environment, which satisfies the employer's requirements (e.g. security conditions, availability of resources, logistics). The trainability of certain jobs relating to data entry or data processing would allow practically any employee with basic training to fulfil them. While telecentres do not have certain disadvantages of home work, they do allow for some of the more general advantages of telework - they could therefore provide an optimal solution for corporations (Bagley, 1994; Clear, 2005).

We examined the recognition factor of telework centres and the prevailing opinions in this type of employment. When understanding responses, one should not leave out of consideration the fact that no telework centres operate in Hungary, that is, respondents could only give theoretical answers due to the lack of practical examples. Only 18% of decision-makers at the companies included have even heard of telework centres.

Due to the low recognition factor, we conducted our examination in three steps. The first thing that interested us was to survey the managers' willingness towards opportunities of telework centre employment, with today's business conditions unchanged. Due to the especially favourable effects seen in the economic development and the employment policies of rural areas, however, we have continued our research on this attitude of willingness while supposing the use of incentives directed to help telework. Phase two surveyed free-of-charge telework centre employment opportunities (meaning no office rent fee), phase three examined managers' willingness towards telework centre employment if non-refundable assistance can be received.

Almost 12% of companies queried thought it would be possible to employ some of their newly hired staff at telework centres under identical business conditions. A further 7% of respondents said they would be willing to use telework centres if they did not have to pay office rent fee. An additional 9% would be willing to hire employers at telework centres if a non-refundable source of assistance was involved.

Altogether, almost 28% of the present telework employers show further potential for using telework centres, assuming an adequate incentive system is established.

The survey of companies that are open towards telework has shown the kinds of jobs where they could envision telework employment. Their answers support the conclusion that two-thirds can imagine data entry and data processing jobs being performed at telework centres, plus over one half thinks that colleagues providing administrative tasks as well as bookkeeping could also work at telework centres. These opinions reflected the lack of experience in Hungary, as their answers wholly lacked a reference to another internationally widespread practice which targets the establishment of work sites created for highly trained professionals nearer to their homes.

We asked respondents to predict future changes in the number of home teleworkers and those employed at telework centres in their opinion. Only about 6% of respondents had faith that the application of telework would produce a sudden growth, while the majority thought the recognition of telework would, although slowly, grow. 75% agreed that a slow/steady rate of progress of home telework could be expected while 51% thought telework centres would grow in significance. It was only 15-16% of respondents that said the penetration of telework would remain unchanged. The majority of respondents thought it was home telework that could grow in significance rather than telework performed at telework centres.

## Conclusion

As a result of our empirical research findings, we could gain a somewhat deeper insight into the mechanisms of employers' decision-making processes and into their attitudes towards telework. Based on the opinions expressed by about 500 corporate managers, one important finding is that most companies closed towards telework could not supply an adequate reason for their reticence. The main grounds for such reservations are a lack of demand of telework as well as a lack of adequate information on it.

Our research projects the possibility of a further 8-16% increase of telework at companies already using telework solutions, applying telework in jobs where they could envision its use but have not yet done so. The general characteristics of the jobs predominantly performed presently as telework also show a further potential for companies that presently have no teleworkers.

Looking at the characteristics of telework, significant opportunities for economic development and employment policies are hidden in its consciously planned and wide-ranging application, primarily by ways of rural telework centres. We have therefore devoted a special chapter in my empirical research to the possibilities of this form of employment - which is quite novel to Hungary. Despite the presence and the novelty of telework centres, about one-third of companies already having some teleworkers showed willingness to use the telework centre form of employment. Regional significance of telework in economic progress and employment policies therefore can be thus realistic - provided that employers receive adequate incentives.

The low rate of telework's penetration in Hungary, however, together with the employers' lack information on telework, presently hinders telework from gaining grounds at a faster pace. The use of telework does not yet show up as a decisive factor in the employers' decision-making process. Based on the answers to the questions in my empirical research, it can be clearly shown that employers mostly require the establishment of an environment with adequate information and incentives better adjusted to employers' requirements to support telework.

The research concludes that it is worth one's while to consider the establishment of an economic environment favourable to the spreading of telework when making plans for regional economic development and creating employment policies. With adequate measures of intervention, the spreading of telework could greatly assist in improving the economic and employment opportunities of underdeveloped regions.

## References

Bagley, M., Mannring, J., Mokhtarian, P., 1994. Telecommuting centers and related concepts: A Review of Practice. Institute of Transportation Studies

Campbell, C., 1995. Exploring a tool for rural community development. Community Technology Centers, Center for Rural Massachusetts, University of Massachusetts, Amherst, MA.

Clear, F., Dickson, K., 2005. "Teleworking practice in small and medium-sized firms: Management style and worker autonomy", *New Technology, Work and Employment*, Vol.20, No.3, pp. 218-233.

Hislop, D., Axtell, C., 2007. "The neglect of spatial mobility in contemporary studies of work: The case of telework", *New Technology, Work and Employment*, Vol.22, No.1, pp. 34-51.

Fenson, B., Hill, S., 2003. *Implementing and Managing Telework - A guide for those who make it happen*, Praeger, Westport, Connecticut.

Gajendran, R., Harrison, D., 2007. "The good, the bad, and the unknown about telecommuting: Meta-Analysis of psychological mediators and individual consequences", *Journal of Applied Psychology*, Vol. 92, No. 6. pp. 1524-1541.

Lee, H., Shin, B., Higa, K., 2007. "Telework vs. central work: A comparative view of knowledge accessibility", *Decision Support Systems*, No. 43, pp. 687-700.

Martínez-Sánchez, A. et al., 2007. "Telework, human resource flexibility and firm performance", *New Technology, Work and Employment*, Vol.22, No.3, pp 208-223.

Pérez, M. et al., 2007. "Modelling the adoption of teleworking: An empirical study of resources and organisational factors", *International Journal of Services Technology and Management*, Vol. 8, No. 2-3, pp. 188-206.

SIBIS, 2003. Statistical indicators benchmarking the information society, European Commission, Brussel.

Teo, T., Lim, V., Wai, S., 1998. "An empirical study of attitudes towards teleworking among information technology (IT) personnel", *International Journal of Information Management*, Vol. 18, No. 5, pp.329-343.

Valsecchi, R., 2006. "Visible moves and invisible bodies: the case of teleworking in an Italian call centre", *New Technology, Work and Employment*, Vol.21, No.2, pp. 123-138.