Perception and acceptance of telework by university students: a case study

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Abstract

The aim of this paper is to examine the perception of university students of the "Institución Universitaria Escolme" on telework in order to formulate appropriate strategies for greater assistance from the public and private sector to increase its implementation in the business sector of Medellin city. The methodology is quantitative, through the collection of primary data by means of surveys of 120 college students between the eighth and tenth semester in the areas of Administrative Sciences at "Institución Universitaria Escolme" city of Medellin. Among the results obtained show that 89 % of respondents expressed positive affinity towards telework, the main reasons for this perception are: saving time, saving money, time flexibility and increased labor productivity; however, it is noted that in the case of Medellin, few respondents have experience in this type of work, noting that the main factors behind this development are the little government support for the implementation of telework in firms and ignorance of the business sector about the advantages of this form of work.

Keywords: telework, perceptions, students, Medellin

1. Introduction

Telework can be defined as a flexible way of working that allows developing functions from wherever the worker is, i.e., not necessarily from an office (Carcamo & Villegas, 2009). This form of work becomes in an opportunity for companies, because it reduces infrastructure costs and it also helps to reduce costs for the employees in their daily expenses and travel times (Julsrud, 2010).

Telework has been poorly implemented in developing countries, as companies and employees do not know the various positive factors associated with the implementation of this type of work, this is the case of Colombia, where only 0.2% of the labor force the country is in this type of work (CCIT, 2014).Faced to these rates suggests that one of the main requirements to drive the implementation of teleworking is to examine the perception of the new labor force (population close to graduating) on telework in order to formulate appropriate strategies for greater assistance from the public and private sector to increase its implementation in the business sector of Medellin.

To address the above problem, this article will consider some backgrounds for understanding the benefits of teleworking and the experiences of other countries in its implementation; exploratory research methodology and finally the main findings in relation to the perception of teleworking respondents by college students will be analyzed and discussed.

2. Background

The concept makes reference to Telecommuting, in which the Employee or Independent Workers toil in a separated place from their physically Offices; this is holding Through telematics, which is the combination of using the Information and Communication Technology (ICT) to perform tasks from any place and at any time (Mitter, 2000).

In this regard, Haddon & Lewis (1994) suggest that teleworking began to gain greater acceptance in the 1970s, because of the energy crisis, and that this form of work is even considered as an alternative substitute to physical movements, interfering in urban design and ways of life of the working population. These reasons led to the vigorous home-office scenario that was given in 1998, allowing employees to transfer their duties and functions of the industry to the local (Brosveet, 1997).

The model of telework is not commonly used, although there are occupations in which is greater the participation in this model, such as architects, lawyers, or business executives like sales personnel; In summary, workers that may be constantly traveling (Daniels, Lamond & Standen, 2001) or that their functions allow them to attend physical work place for days or from a virtual office including computers and cellular modem (Mitter, 2000).

The implementation of teleworking in a given region should be studied from history, culture and education; since from these aspects can conclude how effective can be this working model (Mitter, 2000). Countries with high population density have higher amount of teleworkers, although sometimes the opposite may happen by factors specific to the country or region (Tolbert & Zucker, 1983, DiMaggio, 1988, cited in Daniels, Lamond & Standen, 2001). Consequently, one can quote research by the Norwegian Council on the subject, who did field tests with 13 companies in order to learn the critical aspects of the model. The result of the research was a manual for teleworkers, where activities and processes to be followed are explained to successfully implement in the practice (Bakke & Julsrud, 1999).

This model operates under the neo theory, which is adopted and influenced by social values, transport, labor unions and their standards; for this reason, telecommuting becomes an accepted organizational practice that is developed and applied within the company, building mental models that enable communication within the same (Daniels, Lamond & Standen, 2001).

On the other hand, telework serves to save company resources, such as infrastructure, employee costs, utilities and taxes. It also helps to change the thoughts and attitudes of employees towards work, to develop aspects such as flexibility and saving time traveling; thus, workers become more efficient and aware of the work that develop (Ortega, 2012).

The use of ICT in the telework model, has been used as an indicator showing the formation among the population regarding the ability of employees to adapt to new changes to the use of ICT (Tregaskis, 2000); obtaining important data on the perception that people have about telecommuting (Carcamo & Villegas, 2009), as well as aspects and behaviors of family and organizational communication (Lévy-Leboyer, 2003).

Among the notable effects of this practice is the peace of mind and better management of work situations in cases of health problems; e.g. in case of caring for small children, you can have more time, or care for illness is provided. Thus, telework increases household labor control and relieves stress, managing a balance between work and family roles (Tremblay, 2003).

Furthermore, the application of telework has other positive results, indicating that the company is sustainable and can adapt to economic and technological changes in the market (Peters, Tijdens & Wetzels, 2004). The model also offers competitive advantages by improving flexibility, which may be associated initially with high costs, a situation that tends to decrease over time. Specifically, it discusses the functional and numerical flexibility through outsourcing; or, through temporary agencies that are intermediaries for certain functions

(Sánchez, Pérez, Carnicer & Jimenez, 2007).

Following with the advantages of this practice, reducing costs for the employee and costs for the company are considerable, because this can occur anywhere and do not need a physical space (Carcamo & Villegas, 2009). Furthermore, Mitter (2000) indicates that brings the development and environmental protection, family closeness, increase innovation, increased use of computers, web technology and industrial structure, which favors the growth of industries such as IT.

However, despite these advantages some remarkable negatives issues have been identified, including the reduction of the work life quality, low participation in decision making, low sense of belonging and sometimes declining options labor ascent. With respect to the decline in the quality of working life, telecommuting makes difficult to bond in the employment context, because there is less opportunity to approach and share with colleagues (Carcamo & Villegas, 2009).

Another essential disadvantage is in the unions as compared to telework, unions are not as structured and heard by employers, since their main function is to provide a collective voice of employees who come to work on a particular site, not the employees working outside the company; the same way, the type of contract and the salary of a teleworker is different, since it can be modified at any time by the employer to accept the return of the teleworker to the physical plant (Mitter, 2000). Additional to the above, teleworking can be seen as an example of the flexibility or work detraditionalization where, locations, contracts and hours of work open for renegotiation, as the teleworker is who has time meeting productivity (Yttri, 1999).

Also noted that teleworking means lower working conditions and lower wages than those offered to plant workers in the company. Against this, in2008, the figure of voluntariness is implemented to perform this practice, which the employer must show the advantages, disadvantages and features for the employee to accept or reject this way of working. From this, it begins to see the improvement in the opinions of teleworkers, where they report feeling satisfied with their jobs (Betancourt, 2013)

More concisely, telework has a cost -benefit for employees: the cost of a minor wage for a fixed employee of the company, but with the benefit of saving time and money required displacements at a fixed workplace. Haddon and Lewis (1994) argue that women are more satisfied with this savings than men because of the responsibilities at home and their children; Supplementary to this, Mitter (2000) said that women in India between the ages of 21 and 24, find it easier to apply the model of telework, because they do not have to think in daycare or child care also are more open to change and the use of technology and telecommunications.

In addition, the effective implementation of this model also depends on the nature of the organization : ILO studies show that there are some types of businesses where it is unlikely that this practice is present, because of the activity performed and the adequacy job in the home; these companies are manufacturing, having specific activities in the manipulation of material objects; so this type of work is applicable to companies that provide services or where their tasks can be performed using data such as the use of ICT (Daniels, Lamond & Standen, 2001).

Also, companies that use telecommuting, handled flexible schedules, employees are evaluated by performance and variable compensation sometimes is used; however, it is important to consider that flexibility given by telecommuting is different to that obtained by the eventual outsourcing (Sánchez et. al., 2007). Some companies interested only in production and not in social relations or employee satisfaction, use telework in order to minimize the time that has not been worked because of good labor relations (Haddon& Lewis 1994); consistent with this, companies should be aware that under this scheme, the worker decides the duration of the work time either all day or half day, where at the end you must know the hours worked in the week and meet the requirements, but business hours should never be allowed. (Hörning, Gerhard & Michailow, 1995)

Another factor associated with the success of this practice has to do with the characteristics of employees. Research indicates that for the younger employees is important the social life and opt for traditional work, this is evident in the selection processes for vacancies in telework where the initiative to select this type of work has a negative relationship with the number of consolidated friendships in the traditional mode of work (Haddon & Lewis, 1994) friendships.

Finally, one can note that political intervention with companies for use of teleworking is not very noticeable; this is due to the scope and perspective that companies take to implement this business model, thus influencing cultural and technological factors that make the spread of the practice effective or not for the organization (Mitter, 2000). An alternative to improve this situation, it may be the use of tax collection in the country to encourage telecommuting and management of ICT within organizations, where companies can have lower taxes by applying this model and see this reflected in the cost of telecommunications (European Commission, 1998, cited in Daniels, Lamond & Standen, 2001).

3. Methodology

For the development of the study an exploratory, field and transversal research, was made; supported by a quantitative methodology. The study population consists of university students between the eighth and tenth semester areas of Administrative Sciences at "Institución Universitaria Escolme" of Medellin, the segmentation of the target population allowed to survey students nearby to complete their course of study for subsequent insertion into the labor market.

The quantitative methodological design is self- administered questionnaire, conducted a non-probability sampling criteria, applying the questionnaire to 120 college students. The questionnaire consists of 24 questions and it was applied in person between January and February 2014.

The analysis of the results is descriptive and it was focused initially on the characterizing of the work experience, the taste for teleworking and the implementation of teleworking in the company where they have worked. Subsequently three key factors for the acceptance of this type of work were analyzed, which are: perceived usefulness, perceived ease of use and the profile of respondents' independence. The analysis of these factors was performed using several Likert scale questions which allow to compare their perceptions of the topics within each factor analyzed.

4. Analysis of results

Initially it is important to characterize the work experience, the affinity for teleworking and implementation for this method in the company where respondents have worked. Against this must be mentioned that 89 % of respondents feel pleasantness for teleworking (Table 1). Crossing this information, it appears that 66 % of respondents who have worked previously feel pleasantness for this type of work, from the above it can be concluded that there is good acceptance by employees working under this system. It should be noted that 25.47 % of those who claim pleasantness for the mode have not worked before, so his statement can be substantiated only by their perception of the advantages that brings this practice, as mentioned above, flexibility, saving time and money, family closeness, among others. In addition, a small fraction of those who say they have worked, claim not feel preference for this type of work, which may be because the positions they have worked do not offer the ease of working at a different physical plant of the company.

Table 1. Relationship between the taste for telecommuting and work experience

Do you like teleworking?	Have you worked before?			General total
	Yes	No	Do not know /Do not answer	
Yes	58,82%	22,69%	7,56%	89,08%
No	7,56%	0,84%	1,68%	10,08%
No answer	0,84%	0,00%	0,00%	0,84%
Total	67,23%	23,53%	9,24%	100,00%

Source: compiled from self-administered questionnaire applied.

When asked about the existence of the figure of telework in firms where they work or have worked respondents found that in 61.02% of cases, companies do not handle this type of work (Table 2); this is an example of the low implementation of teleworking in organizations in Medellin. The above results may be

due to the company goals are incompatible with the practice of telework, the positions of these people are not suited to work away from the physical plant of the organization or that there is still a lack of knowledge by managers an organization of the potential benefits to be gained by developing this type of work. Similarly, there is evidence that people who work in companies without teleworking, the 62.15% would like to work this way, motivated by the advantages of this form of work.

Table 2. Relation between teleworking and pleasantness for the implementation of teleworking in the company where you work.

Does the company where you worked or work implements teleworking?	Do you like teleworking?			Total
	Yes	No	Do not know /Do not answer	
Yes	26,27%	11,02%	1,69%	38,98%
No	41,53%	12,71%	6,78%	61,02%
Total	67,80%	23,73%	8,47%	100,00%

Source: compiled from self-administered questionnaire applied.

Table 3 shows that companies in which respondent work, only 37.9% implement the teleworking, but as to whether it is possible to perform the duties of respondents under this system only 25.9% answered affirmative. Because of this, one might assume that organizations that apply the modality, have positions where the figure of the teleworker can be more effective in terms of productivity and employee satisfaction. It is also noted that about 44.4% of respondents that claim that their position may be done adopting telework, work in an organization that does not apply telework; once again this may be due to lack of knowledge or that the implementation of the telework costs outweigh the benefits. Again, this may be due to lack of knowledge or the application of the remote work costs outweigh the benefits.

Table 3. Relationship between the implementation of teleworking in the company where people work and the possibility to hold the position in this type of job

Does the position you hold, can be exercised through telecommuting?	Does the company where you worked or work implements teleworking?		
	Yes	No	Total
Yes	25,86%	20,69%	46,55%
No	10,34%	28,45%	38,79%
Do not know /Do not answer	1,72%	12,93%	14,65%
Total	37,92%	62,07%	100%

Source: compiled from self-administered questionnaire applied.

Now the results of 3 key factors are displayed for the acceptance of this type of work, which are: perceived utility, perceived ease of use and independence profile of respondents. Facing the perceived utility of this type of work (Table 4), is evidence that telework is perceived very important to save time traveling at 66% of respondents and money on transportation in 62% of cases, because the worker should not displace to the physical plant of the company. In relation to flexible working hours, 55% noted that perceives this as a very important factor in this type of work, which is consistent with the advantages in terms of flexibility found by Sanchez et. al. (2007), who suggest the need for greater disclosure of these factors in order to promote the implementation of this type of work. On the other hand, factors with lower levels of perceived utility by respondents were increasing labor productivity and decreased labor distraction factors with a negative perception of 5.83 % and 11.3 % respectively; however, it can be observed that all investigated aspects registered a positive perception on respondents with a choice of "very important" higher to 35 % for all the analyzed questions.

Table 4. Perceived Utility of telework

Perceived utility	Very important	Important	Not important	Little importance	Not important at all	Dk/Da
Save time on travel	66,67%	30,00%	0,83%	2,50%	0,00%	0,00%
Saving money on transport	62,50%	30,00%	5,83%	0,83%	0,83%	0,00%
flexible hours	55,46%	37,82%	4,20%	0,84%	1,68%	0,00%
Growth in labor productivity	37,50%	40,00%	13,33%	5,00%	0,83%	3,33%
Decreased labor distraction factors	35,59%	28,81%	21,19%	5,93%	5,08%	3,39%

Source: compiled from self-administered questionnaire applied.

Regarding the perceived ease of use of teleworking, it was found that approximately 75% of respondents agree or strongly agree that this model allows them to fulfill work duties from home (Table 5); this may be due to time savings in traveling to the physical workplace and the fact that the employee manage their time, so it may be more efficient in delivering results.

In addition, over 85% of respondents agree or strongly agree that telecommuting facilitates the use of ICT in their work; this, because it is necessary to use computers and cell phones to deliver evidence of the daily work these people do. Finally, it is important to note that even though respondents have a favorable concept of telecommuting, only 21.67% are agree that the government supports companies to implement this practice; Also, it is noteworthy that 30% of respondents do not know and do not emit a concept for this support, which shows that there is no good information from the government to publicize what is being done for companies to implement this labor method.

Table 5. Perceived Ease of use of telework

Ease of use	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Dk/Da
It makes easy to perform my work duties from home	36,67%	39,17%	10,00%	9,17%	2,50%	2,50%
It is easy for me to use technological tools in my job functions	37,50%	50,83%	4,17%	4,17%	0,83%	2,50%
The government supports businesses to implement telecommuting	13,33%	21,67%	16,67%	17,50%	0,83%	30,00%

Source: compiled from self-administered questionnaire applied.

Table 6 compiles the perception of independence that can be achieved with this practice. Regarding the

possibility of spending more time with family, 95% of respondents noted that it is important or very important, which can be achieved with the implementation of teleworking. 84% of respondents believe that employee satisfaction is an important or very important aspect that this method brings, and that 40.8% consider it very important for the reduction of stress and work pressure.

In addition, about 82% consider very important or important the increased independence in work commitments, which can be reached from telecommuting to the extent that companies know and implement this type of work. Overall, respondents perceived positively telecommuting as a work option that provides them greater independence and satisfaction in their working positions, factors that are linked to greater permanence and labor productivity so companies must find strategies to migrate to this more flexible and dynamic type form of work for employees.

Table 6. Perception of independence achieved with teleworking

independence	Very important	Important	Not important	Little importance	Not important at all	Dk/Da
Share more time with family	68,33%	26,67%	1,67%	2,50%	0,00%	0,83%
Employee Satisfaction	47,50%	36,67%	10,00%	4,17%	1,67%	0,00%
Stress and work pressure is reduced	40,83%	40,83%	6,67%	7,50%	2,50%	1,67%
Greater independence in work commitments	35,83%	46,67%	8,33%	5,83%	0,83%	2,50%

Source: compiled from self-administered questionnaire applied.

Finally it is worth mentioning as the three analyzed factors (perceived utility, ease of use and independence) have allowed to observe the way in which telework is accepted due to positive factors such as labor flexibility, cost savings and improvements in the quality of the free time; however, respondents perceive that the government and organizations should understand the role of telecommuting as a way to obtain productivity improvements, reduce labor costs and keep employees motivated, so the main challenge is to generate strategies that allow to visualize in a clearer way the benefits for employers and employees when they adopt this new work trend.

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