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Review Article

# VALIDATION AND APPLICATION OF THE PILOT TEST OF THE DATA COLLECTION INSTRUMENT TO MEASURE THE DEGREE OF HOME OFFICE ACCEPTANCE IN THE CITIES OF APIZACO, TLAXCALA AND XALAPA, VERACRUZ

**Paola Leilani Alarcón Romero[1], Ma. Elizabeth Montiel Huerta[2], Alejandra Torres López[3], Rosa Cortés Aguirre[4] and Crisanto Tenopala Hernández[5]**

[1]Master's Degree in Administrative Engineering Assigned to the National Technology Mexico, Apizaco Institute of Technology
[2,3,4,5]Graduate Studies and Research Division, Assigned to the National Technology Mexico, Apizaco Institute of Technology

**A R T I C L E I N F O**

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**A B S T R A C T**

Home office or telework, in Mexico, is defined and regulated by the Federal Labor Law in article 311 as the one that is usually performed for an employer, in the worker's home or in a place freely chosen by him, without supervision of the person who provides the work[1]. Two questionnaires were designed to find out the point of view of employees and employers of savings banks in the cities of Apizaco and Xalapa on their willingness to work from home. The methods "expert validation" and "pilot test" were used to find out if the questionnaires are reliable in the objective collection of opinions. The expert validation concluded that 98% of the items in both questionnaires meet the principles of clarity, objectivity, consistency, coherence, relevance and sufficiency. While the pilot test showed that the employers interviewed consider that home office can offer benefits such as increased productivity at work, they are not willing to have their employees work from home. On the other hand, employees showed a greater willingness to adapt to working under the home office scheme.



## INTRODUCTION

Home office or teleworking is defined as a modality of service provision of a non-face-to-face nature based on information technologies that allows employees of an organization to perform part of their workday from outside the office, either from home or from other places[2]. It facilitates the connection of workers with the business activity, without the need for physical presence in the workplace, to promote work-life balance and flexibility[3]. On June 19, 2019, the Plenary of the Mexican Senate endorsed reforms to regulate and promote home office. The reform was published in the Official Journal of the Federation on January 12, 2021[4].

The practice of teleworking entails the correct adaptation of workspaces (either at home or in the place where the worker performs his/her work), changing supervision techniques and the use of information and communication technologies for the fulfillment of objectives[5].

*****Corresponding author:* **Paola Leilani Alarcón Romero**
Master's Degree in Administrative Engineering Assigned to the National Technology Mexico, Apizaco Institute of Technology

According to the document "Telework" [6], this modality offers multiple advantages for employers (for example: reduction of absenteeism, infrastructure costs and increased productivity), employees (better use of their time, schedule flexibility, savings in expenses and travel time, among others) and society (reduction of polluting gas emissions, reduction of traffic congestion, social inclusion, etc.), i.e., it is an area of opportunity for economic and social development.

According to the "Report on the state of teleworking in Latin America and the Caribbean"[7], applying only two days a week some Home Office strategies, in Mexico, represents an increase in productivity of up to 28% for companies that carry it out, by reducing travel time by up to 5 hours in Mexico City. Likewise, the implementation of the law will have an impact on the reduction of expenses and travel time of employees, the reduction of polluting gas emissions from automobiles or public transportation, the reduction of absenteeism in companies due to personal matters to attend to, and the increase in productivity because of having more flexibility in schedules[8].

For this reason, the application that the reform could have in the savings banks of the cities of Apizaco, Tlaxcala and Xalapa, Veracruz was analyzed; also influenced by global

events such as the pandemic generated by the SARS-COV-2 virus and the changes in the work methods that must be carried out to maintain the safety of employees and workers.

## METHODOLOGY

Two data collection instruments were designed to determine the degree of acceptance of the home office by employees and employers of savings banks in Apizaco, Tlaxcala and Xalapa, Veracruz.

Both were developed on a Likert scale and according to the following research variables. For the employees we seek to know:

- The level of legal knowledge and understanding, to see how much they know about home office regulations.
- The level of willingness to change their work mode, i.e., whether they are willing to adopt this type of work scheme.
- Employees' acceptance of home office work.
- The degree of personal and job satisfaction.
- The degree to which they take advantage of their free time.
- The average commuting time and whether they have the necessary infrastructure to work from home.
- In the case of employers, the guidelines of the instrument are:
- The level of legal knowledge and understanding, which determines how much they know about the federal labor law and the regulation of the home office.
- The level of willingness to change work modality.
- The level of acceptance to perform home office work.
- Social inclusion, to find out how much they are willing to hire people with disabilities.
- And finally, how much they are willing to invest in systems and infrastructure so that employees can work from home.

The validation of both instruments was carried out by means of the "expert validation" method and the application of these in a pilot test. Hernandez[9] defines expert validity as the degree to which an instrument measures the variable of interest, according to experts in the field, while Gomez[10] defines pilot testing as administering the instrument to a small sample of cases to test its relevance and efficacy, in order to calculate its initial reliability and validity.

For the expert validation, the format was designed to rate the clarity, objectivity, consistency, coherence, relevance, and sufficiency of the instrument's questions. These were sent by e-mail to the selected experts, and they returned the observations by the same means.

The other method for validation was pilot testing. The "census" method was used to determine the sample, i.e., they were applied to all available savings banks and employees[11]. For this reason, the surveys were applied in three savings banks, each with an average of four employees, making a total of 15 employees and three employers.

## RESULTS

### *Expert validation*

According to the experts, 98% of the items in both questionnaires comply with the principles of clarity, objectivity, consistency, coherence, relevance, and sufficiency. They also suggested that for some items more response options should be considered, so the pertinent corrections were made for the application of the instruments during the field research.

### *Pilot test*

Fifteen employees of the three savings banks and three employers were surveyed for the purposes of the pilot test.

### *Employer instrument*

The instrument was applied to three savings bank employers in the cities of Apizaco, Tlaxcala and Xalapa, Veracruz, two of whom are women and one of whom is a man. They are between 30 and 49 years old. All of them stated that they had completed university studies. The results of this application are described below, divided according to the research variables of this work.

1. Level of legal knowledge and understanding. When asked if they understand the contractual differences between the home office and traditional work methods, 66.7% responded that they agreed, while 33.3% were undecided.
2. Level of willingness to change work methods. Despite considering that the home office offers benefits to those who practice it, 33.3% of respondents disagreed that their company should implement this work scheme, while the rest (66.7%) were undecided.
3. Acceptance to perform Home office. 33.3% do not agree that their employees should carry out their work activities from home, while 66.7% are undecided because they are not sure if the home office is functional for their activities.
4. Social inclusion. Employers were asked if they were willing to hire people with motor disabilities to perform the work they offer, of which 66.67% responded that they were willing to do so.
5. Infrastructure costs. In terms of the structure to perform home office, 66.7% of the employers do not agree to provide the necessary facilities to perform it.

### *Employee instrument*

Of the 15 employees of the savings banks to whom the questionnaire was administered, 60% were women, 33.3% were men and 6.7% preferred not to say their gender. Their age ranged from 20 to 49 years. And their educational preparation showed that 60% had a bachelor's degree, while 40% had graduated from high school. The most relevant results are presented below, separated by research variables.

1. Level of legal knowledge and understanding. Of the total number of employees surveyed, 73.3% were aware of the contractual differences between home office and traditional work, while 6.7% of them had no knowledge on the subject.
2. Level of willingness to change work modality. 53.4% of those surveyed believe that companies should implement home offices, while 6.7% disagree.
3. Acceptance to perform home office. Similarly, 53.4% of the savings banks' employees would like to be able to work from home. Sixty percent are undecided as to whether they should offer the possibility of working from home.

4. Personal and job satisfaction. For 66.6% of those surveyed, their working day allows them to carry out their daily activities, while for 20% of them the time they spend at work is not enough. 53.3% of respondents feel that they are not listened to and only 20% believe that their direct bosses and superiors pay attention to their comments and observations.
5. Time off. 46.7% of respondents say they do not engage in activities in their free time. The most popular hobbies among savings bank employees are: listening to music (33.3%), playing sports (26.7%), watching television (20%), reading books (13.3%) and dancing (6.7%).
6. Travel time. 53.3% of savings bank employees spend up to 30 minutes on their commute to work each day. 33.3% spend up to 40 minutes on their commute and only 13.3% work up to 20 minutes away from where they live.
7. Infrastructure. 93.3% of those surveyed said they had a computer, which they could use to work from home. A total of 6.7% mentioned not having the technology. 56.4% of the employees of the savings banks stated that they had a space at home for work or study only. 53.3% were undecided. 53.3% were hesitant to look for a place outside of their home to work due to the pandemic. Forty percent said they were willing to locate a place to work.

***Statistical reliability coefficient***

After the application of the instruments, the reliability coefficient "Cronbach's alpha" was used to determine the degree to which the items of the questionnaire are related to each other[12]. Tables 1 and 2 present the results obtained with the help of statistical software.

**Table 1** Cronbach's alpha for the questionnaire applied to employers

| Reliability statistics | | |
|---|---|---|
| Cronbach's alpha | Cronbach's alpha based on standardized items | N of items |
| .918 | .933 | 16 |

Source: Elaborated from the results of statistical software, 2020.

Table 2 Cronbach's alpha for the questionnaire applied to employees

| Reliability statistics | | |
|---|---|---|
| Cronbach's alpha | Cronbach's alpha based on standardized items | N of items |
| .762 | .832 | 27 |

Source: Elaborated from the results of statistical software, 2020.

According to Streiner[13], the minimum acceptable value for Cronbach's alpha coefficient is .70. It is considered that below .70 the internal consistency is low. Taking the above as a reference, it can be interpreted that the results for both instruments are considered acceptable.

## CONCLUSION

When teleworking, or home office, is reformed and regulated in Mexico, companies and their employees must make changes both in their mentality and in the way they are accustomed to work. For this reason, it is important to know both points of view to determine if they are willing to modify their behaviors.

Although most of the employers interviewed consider that home office can offer benefits such as increased productivity at work, being able to hire people with motor disabilities or reduce their turnover rate by being an option for maternity leave or for any other reason, they are not entirely convinced that their employees should work from home because they are not currently willing to provide the necessary tools or equipment to develop it.

On the other hand, unlike the employers, the employees of the savings banks showed greater willingness to adapt to working under the home office scheme. Also, although there is some resistance to adopting it, they consider that it could generate benefits such as reducing their expenses and commuting time, as well as increasing their productivity at work.

## References


1. Federal Labor Law (2019). Mexico. Chamber of Deputies.
2. Barrera, E (1999). La cuartageneración del teletrabajo: un anticipo de la sociedad de la información. Madrid. Fundación Universidad-Empresa.
3. ILO-Eurofund. (2017). Working anytime, anywhere: The effects on the world of work. Luxembourg: Publications Office of the European Union.
4. Secretaria de Gobernación. (2021). DECRETO por el que se reforma el artículo 311 y se adiciona el capítulo XII Bis de la Ley Federal del Trabajo, enmateria de Teletrabajo. 11/01/2021, de Secretaria de Gobernación Website: https://www.dof.gob.mx/nota_detalle.php?codigo=5609683&fecha=11/01/2021
5. International Labor Organization. (2016). The challenges and opportunities of teleworking for workers and employers in the information and communications technology (ICT) and financial services sectors. February 2020, from International Labour Organization Website: https://www.ilo.org/sector/Resources/publications/WCMS_531116/lang--es/index.htm
6. Gamboa C. (2017). Telework. Mexico. Cámara de Diputados.
7. International Telework Academy for Latin America and the Caribbean. (2017). State of Telework in Latin America and the Caribbean. Brazil: ITALAC.
8. Federal Labor Law (2019). Mexico. Chamber of Deputies.
9. Hernández, *et al*. (2014). Metodología de la investigación. Mexico: McGrawHill
10. Gómez. (2006). Introducción a la metodología de la investigacióncientífica. Córdoba: Brujas.
11. National Institute of Statistics and Geography (2021).
12. Aiken. (2003). Tests psicológicos y evaluación. Mexico: Pearson Educación.
13. Streiner. (2003). Starting at the Beginning: An Introduction to Coefficient Alpha and Internal Consistency. Journal of Personality Assessment, 80, 99-103.
14. International Labour Organization. (2016). The challenges and opportunities of teleworking for workers and employers in the information and communications technology (ICT) and financial services sectors. February 2020, from International Labour Organization Website: https://www.ilo.org/sector/Resources/publications/WCMS_531116/lang--es/index.htm

15. Yacopino, N. (2013). Telework, an expression of the new forms of work organization. Approach to the issue and questions raised by its implementation in the region of Neuquén. Dissertation. La Patagonia, Argentina: Universidad de Comahue.
16. Mora Eguiarte, D. (2017). Flexible schedules as a strategy to improve productivity and reduce turnover. ACADEMO (Asunción) 4(2):55-62.

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