

# **Home Office Physical and Psychosocial Ergonomic Effects on the Job Satisfaction of Service Sector Employees in Peru**

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## **Abstract**

Covid-19 pandemic brought several changes in the working conditions of employees, who had to adapt to new work modalities known as home office. The objective of this study was to identify the correlation between the physical and psychosocial ergonomic conditions of the home office environment of workers belonging to the service sector in Peru and the effects of these conditions on their job satisfaction. For this purpose, a quasi-experimental methodology was designed with a mixed approach and a correlational scope, the ergonomic evaluation of the LEST method and a job satisfaction questionnaire were used on a sample of 97 employees in the service sector in Peru. After performing the Pearson correlation using SPSS software, the hypothesis is rejected and, therefore, the alternative hypothesis is accepted, which confirms the existence of a correlation between the variables described before. An inverse and statistically significant correlation was found between the mental workload dimension of the LEST method and job satisfaction.

## **Keywords**

Ergonomics, Job Satisfaction, Home Office, LEST Method, Correlation

## **1. Introduction**

Peru has been the country most affected in the world by the COVID-19 pandemic in terms of number of deaths as a percentage of the population (Borrell J. 2021). Due to the global health crisis, how people work all around the world changed drastically, with remote work, specifically the home office, becoming a prevailing mode of employment across various industries. This transition was marked by both opportunity and challenge, as the laboring classes are the principally infected and affected by the new coronavirus, companies scrambled to adjust to a new way of working (Lust J. 2021). A job is a significant part of people's lives, shaping both their lifestyle and social connections. As a result, it is crucial for every organization to maintain a satisfied and fulfilled workforce (Inayat, W. & Jahanzeb, M., 2021). That is why this transformation raised fundamental questions about the ergonomic conditions of home offices and their impact on the job satisfaction of employees, particularly those in the service sector.

This research explores the complex connection between the physical and psychosocial ergonomic conditions of the home office and the job satisfaction of employees in Peru's service sector. It explores how these ergonomic factors contribute to the overall well-being and contentment of employees in a rapidly evolving work environment. To navigate this multifaceted inquiry, the study is anchored in a series of key research questions:

- **Evaluating Ergonomic Conditions:** The research first aims to evaluate and identify the physical and psychosocial ergonomic conditions of the home office environment for employees in the service sector. This will be achieved through the utilization of the LEST method, a comprehensive tool designed to assess the work conditions comprehensively.
- **Measuring Job Satisfaction:** The research also seeks to measure job satisfaction among service sector employees through surveys. It endeavors to capture the nuances of job satisfaction in the context of remote work and investigate its relationship with the ergonomic conditions of the home office.

## **Research topic**

Effects of physical and psychosocial ergonomic conditions of the home office on job satisfaction of employees in the service sector in Peru.

## **Research Problem and/or Research Question**

- What are the ergonomic conditions of the home office and what effects do they have on job satisfaction in the service sector?
- How to measure job satisfaction in the home office?
- What are the physical ergonomic conditions of the home office workplace of employees in the service sector?
- What psychosocial ergonomic conditions are present in the telework of employees in the service sector?
- What is the relationship between inadequate physical and psychosocial ergonomic conditions of teleworking and job satisfaction?

## **Hypotheses**

- H0: There is no correlation between the physical and psychosocial ergonomic conditions of the home office and the job satisfaction of employees in the service sector in Peru.
- H1: There is a correlation between physical and psychosocial ergonomic conditions of the home office and job satisfaction of employees in the service sector in Peru.

## **1.1 Objectives**

The general objective is to identify the physical, ergonomic and human factors (or psychosocial) conditions of the home office work environment of employees belonging to the service sector and the effects of these on their job satisfaction.

The specific objectives are:

- To evaluate and identify the physical and psychosocial ergonomic conditions of the home office using the LEST method.
- To measure job satisfaction of service sector employees through surveys and discuss the relationship with home office ergonomic conditions.

## **2. Literature Review**

Throughout time, working people used to go to their workplaces every day. The Political Constitution of Peru defines that the maximum working day is 48 hours a week. Likewise, it has a minimum snack of 45 minutes per day within the established schedule. (Ten things you should know about the working day in Peru 2018).

However, on March 6, 2020, the first confirmed case of Covid-19 was reported in Peru and days later the World Health Organization (WHO) qualified it as a pandemic (Varsi Rospigliosi, E., et al. 2020). The world took a turn that no one would have ever imagined, which meant a great challenge for the labor sector. Covid-19 is "an infectious, highly contagious disease, properly a pandemic, which has spread throughout the world, far and wide, without distinction of region, gender or race, and is killing thousands of people." (Varsi Rospigliosi, E. et al. 2020).

In Peru, as in many countries, mandatory social isolation was ordered as a measure to combat the health crisis. Because of this governmental restriction, a new way of working was configured: the home office, which is carried out using the Internet or other communication or technological ICT platforms from home (Santillán Marroquín, W. 2020).

However, there were exceptions in some businesses where it was essential to have personnel on site to provide customer service; these include supermarkets and pharmacies. For the operation of these companies in times of pandemic, the relevant sanitary measures imposed by the government must be strictly complied with.

In June 2020, the Ministry of Labor and Employment Promotion (MTPE) stated that around 200,000 people were already working remotely in Peru. Similarly, in a study carried out by the San Ignacio de Loyola Institute (ISIL) in April 2020 with a sample of 250 of the main companies in the country, it was found that 89% worked from home and of these 39% had the entire company in this modality (Comunal 2020). According to a study conducted by Ernst & Young (EY) in Peru this year, 95% of formal companies would be keeping part of their workers in the home office mode. Also, according to the survey, at least 62% of workers in the education, finance and insurance sectors, areas belonging to the service sector, are prioritizing this new work format and 44% of the companies indicated that the compensation to the worker was modified, such as the reduction of salaries and variations in the working day (95% of formal companies keep their employees in remote work 2021).

As well as most companies were obliged to carry out the perfect suspension of work to their workers, in which the payments and the work of the employees are suspended. Other companies had to opt for their employees to work from home despite not having adequate space, and it is possible that this could have harmful effects on health. According to the World Bank, Peru is considered the country with the second greatest difficulties in the implementation of the home office work modality, since most companies were not prepared to face this great challenge (Comunal, 2020). Job satisfaction, i.e., the attitude or set of attitudes developed by the person towards their work situation (García Vargas, M. & Sánchez Trujillo, M. 2017) could have been affected by the physical-environmental conditions presented by their new workspace. That is why, it is considered essential to carefully examine the working conditions through the discipline of ergonomics (physical and psychosocial), which aims to optimize human welfare and the overall performance of the system.

In order to implement a good ergonomic system, it is necessary to identify the conditions of the workplace, as well as to diagnose the existence of a risk in order to minimize possible damage. Poor ergonomic conditions can trigger harmful health problems, such as musculoskeletal disorders (MSD), visual fatigue, hearing loss (deafness), among others. In addition, it is important to recognize if the person has mental load, stress, overwork, among others, since this would negatively affect the development of their activities (Linares J. et al. 2014).

There are several ergonomics techniques for analyzing the above-mentioned workplace risks, including the LEST method (Laboratoire d'Economie et Sociologie du Travail). This tool was developed in 1978 by F. Guélaud, M.N. Beauchesne, J. Gautrat and G. Roustang and seeks to evaluate working conditions by measuring variables involved in the workstation in order to diagnose whether the workstation situations are satisfactory, annoying or harmful and whether they have an impact on the physical and emotional health of workers. This method collects both quantitative and qualitative information, since it uses variables such as temperature, noise level and at the same time considers the employee's opinion about their work in order to measure psychosocial aspects (Islas Reyes, D. & Obregón Sánchez, M. 2016).

With all the information presented, it can be stated that the home office was a challenge for all Peruvian and international companies, since most of them were not prepared to implement this new modality. From having face-to-face meetings to working through virtual meetings and staying, so much time at home was a challenge and an important change. In addition, many of the employees did not have the right conditions or the ergonomically necessary space to work. In addition, employees were concerned about the context, affecting their psychosocial factors as well as their personal problems, and had to focus on a new way of working in order to achieve their personal and professional goals.

### **3. Methods**

This article has a quasi-experimental methodological design, with a mixed approach and a correlational scope. The population for the study was made up of employees in the service sector in Peru who work in the home office. The representative sample was calculated using the infinite population formula. For this purpose a 95% confidence level was considered, with a z of 1.96, a relative error of 10% and according to the BCRP (2021), the service sector is equivalent to 50.7% of the labor market. Finally, a sample of 97 employees belonging to the service sector was obtained as a result.

The research will use the LEST method for the ergonomic evaluation of the workspace in the home office and the job satisfaction questionnaire validated with a Cronbach's Alpha of 0.905 to identify whether workers are satisfied to work in the company to which they belong. Both will be carried out virtually through a Google Forms questionnaire due to the context. After that, the results will be used to find the correlation between the two to verify whether the ergonomic, physical and psychosocial conditions of the home office influence the job satisfaction of employees in the service sector.

As for the LEST method, the questionnaire of the Polytechnic University of Valencia was taken as a reference, which is capable of measuring 5 dimensions and from each one a group of variables is derived, being 16 in total. This is done with the objective of collecting adequate information for the respective analysis. Each dimension is shown below with its variables and the necessary data to be collected for each one. With this, it will be possible to determine the physical and psychosocial conditions of the home office.

Table 1. Dimensions, Variables for LEST method

<b>Dimension</b>	<b>Variable</b>
Physical load	Static Load
	Dynamic load
Physical environment	Thermal environment
	Noise
	Lighting
	Vibrations
Mental load	Time pressure
	Attention
	Complexity
Psychosocial aspects	Initiative
	Communications
	Relationship with control
	Social status
Working time	Working time

With the data collected and the use of the scoring table, it is possible to obtain the evaluations of each of the variables and dimensions. The evaluation that can be assigned ranges from 0 to 10, depending on the person evaluated, as shown in the table below.

Table 2. LEST scoring system

<b>Scoring System</b>	
0,1,2	Satisfactory situation
3,4,5	Weak discomfort. Some improvements could bring more comfort to the worker.
6,7	Medium discomfort. High risk of fatigue.
8,9	Severe discomfort. Fatigue.
10	Harmful Situation

The purpose of the job satisfaction questionnaire is to evaluate job satisfaction in general and specifically for employees in the service sector who work in the home office. This technique consists of 3 dimensions and 19 items detailed below.

Table 3. Job satisfaction questionnaire

<b>Dimension</b>	<b>Item</b>
Physical conditions	Do you believe that physical conditions can improve worker job satisfaction?
	Do you consider that your home has a spacious yet welcoming physical environment in which to work?
	Are you satisfied with the work environment in which you perform your duties?
	Do you consider your work environment to have adequate ventilation and lighting?
	Do you think your work environment is clean and tidy?
Employee benefits	Are you satisfied with the salary you receive?
	Do you believe that the remuneration you receive is in line with the company's profits?
	Do you think the remuneration is attractive compared to other companies?
	Does the company provide you with opportunities for advancement in your job?
	Does the company recognize staff with higher education?
	Is there job stability in the company?
	Do you believe that the company promotes the personnel that best performs their activities according to the job position?
Interpersonal relationships	Do you think your team is ideal?
	Do you believe that the leader is the one who encourages teamwork among your colleagues?
	Does the company encourage good relationships between co-workers?
	Is communication between managers and subordinates smooth and clear?
	Does the company have adequate means of communication to convey messages?
	Do you think that the company provides sufficient information on training?

Each of the questions described in the items in Table 3 should be scored according to the criteria of the employee in the service sector being evaluated. The scoring system is shown below to make it possible to rate their level of job satisfaction.

Table 4. Job satisfaction questionnaire scoring system

<b>Scoring System</b>	
1	Never (N)
2	Almost Never (CN)
3	Sometimes (AV)
4	Almost always (CS)
5	Always (S)

Correlation, a fundamental statistical concept, is employed to explore various relationships between variables within populations of interest. These are found in practically all areas of empirical knowledge, including social sciences, agriculture, economics, health, engineering, physics and many others. Two of the most commonly utilized correlation methods are Pearson's correlation coefficient, which is designed for numerical data, and Spearman's rank correlation, which is applied to ordinal data. These methods provide valuable insights into the associations between variables, enabling researchers to better understand complex phenomena and make informed decisions in their respective fields of study (Ortiz & Ortiz 2021).

After developing the LEST method and the satisfaction questionnaire, and obtaining the results of both, a statistical analysis must be performed using Pearson's correlation coefficient. In statistics, this is often denoted as Pearson's "r," is a metric used to quantify the degree of linear correlation between two datasets. It is obtained by typing the average of the products of the deviations from the mean in the variables. This method guarantees that the final value is always between -1 and 1, which makes it a dependable way to tell how strong and in which direction the linear relationship is between the two datasets (Suresh & Kalidindi 2022). To analyze the results of the survey and the respective correlation already mentioned, SPSS, an IBM statistical program, will be used.

Before explaining the techniques and instruments to be used, it is essential that they be validated. Since both the LEST method and the job satisfaction questionnaire are standardized tools that have been previously tested in other research, if they are altered, a validation must be carried out. Because of the context, the surveys were adapted so that they could be carried out virtually in the home office. With respect to the LEST method, this is normally evaluated in person, using measuring equipment such as a vibrometer to measure vibrations, a sound level meter for noise decibels, a lux meter for lighting levels, among other instruments. Likewise, the observation technique is usually used at the workstations for the evaluation of posture and repetitive operations. Similarly, the questions were modified so that it is possible to obtain the required result without any complication by means of an online questionnaire. Therefore, for the modified instrument to be reliable and truthful, the questionnaire was validated through Expert Judgment, an opinion of professionals who are experts in the subject and who are qualified to give judgment and value the information (Zamora-de-Ortiz, M. S. et al. 2020).

Finally, a pilot test of both questionnaires was applied to check whether the respondents were able to understand the questions correctly or, if not, to make the corresponding corrections. This preliminary test will be applied to people working in the service sector, such as banks, supermarkets, insurance companies, shopping malls, among others.

#### 4. Data Collection

Both surveys described above were applied and a response rate of 100% was obtained, completing the established sample size. To complete the objective, convenience sampling, a non-probabilistic and non-random method, was used. To achieve this, the surveys were sent to people working in the service sector, applying the snowball technique.

Regarding the demographic characteristics of the sample, 69% of those evaluated were women and 31% were men. In terms of age, 75.26% were between 18 and 25 years old, 9.28% were between 26 and 35 years old, 5.15% were between 36 and 45 years old and 10.31% were over 46 years old.

With respect to the results achieved in each dimension, the percentage was determined according to the rating. Below are the summary tables of the results of the evaluations (LEST method and job satisfaction) developed through SPSS software and their subsequent analysis.

#### 5. Results and Discussion

##### 5.1 Numerical Results

###### PHASE 1: LEST METHOD

The results show that the highest satisfaction is presented in the physical environment dimension in the vibration variable, followed by the physical load dimension in dynamic load. Regarding the first one, it can be said that people do not feel affected by vibrations, since they are not in an industrial area or in a plant, which are places exposed to vibrations; on the contrary, they are working at home. With respect to the dynamic load, almost 50% of the people surveyed rated this variable as a satisfactory situation, since most of the time, if not all, in the home office is spent in

Table 5. Results of the LEST method

Dimension	Variables	Satisfactory situation	Weak discomfort	Medium discomfort	Severe discomfort	Harmful situation
Physical load	Static load	12.40%	21.60%	25.80%	22.70%	17.50%
	Dynamic load	48.50%	29.90%	16.50%	5.20%	0.00%
	Thermal environment	41.20%	30.90%	18.60%	8.20%	1.00%
Physical environment	Noise	27.80%	37.10%	22.70%	10.30%	2.10%
	Lighting	44.30%	32.00%	16.50%	5.20%	2.10%
	Vibrations	72.20%	14.40%	8.20%	3.10%	2.10%
Mental load	Time pressure	19.60%	30.90%	23.70%	17.50%	8.20%
	Attention	22.70%	41.20%	25.80%	6.20%	4.10%
	Complexity	20.60%	51.50%	19.60%	5.20%	3.10%
Psychosocial aspects	Initiative	34.00%	40.20%	17.50%	6.20%	2.10%
	Communications	40.20%	34.00%	19.60%	3.10%	3.10%
	Relationship with control	37.10%	37.10%	16.50%	5.20%	4.10%
	Social status	39.20%	47.40%	10.30%	1.00%	2.10%
Working time	Working time	27.80%	34.00%	19.60%	13.40%	5.20%

a seated position in front of a computer. The person only rests during work breaks or to take an active break, so there is no need to carry objects, much less repetitive work that requires strength to be manipulated.

fThe highest percentage qualified as "harmful situation" is presented in the physical load dimension in the static load variable. This is since most people do not have an adjustable chair that adapts to their different physical typologies, as well as employees who work in a reclining position, either in bed or sitting in an armchair. These places do not have an optimal elbow height, let alone a proper posture, which then triggers musculoskeletal problems by not maintaining a normal curvature of the spine. Therefore, only 12.4% rate this variable as a satisfactory situation in their home workspace, a low percentage compared to the other criteria evaluated in the LEST method. It is also important to mention that they are in the same posture for a prolonged period that commonly exceeds 8 hours.

With respect to the last idea mentioned, the percentage of average discomfort in the time pressure variable stands out. One of the negative consequences of the home office is that the established working hours of 6 or 8 hours, depending on the job, are not respected 100%. In face-to-face work, before the pandemic, the worker left the office after the workday and no longer had to perform additional tasks. In contrast, today the schedule has become variable and flexible for most people, who feel pressure to accomplish everything that is demanded in the shortest possible time. Finally, there were significant results in the criterion of "weak discomfort" in the social status and complexity variables. Regarding the former, this could be due to the fact that online learning difficulties are greater, and it could be complicated to adapt. With respect to complexity, more than half reported having weak discomfort, which is a consequence of the long duration and difficulty to perform the tasks at home, affecting the mental workload.

## PHASE 2: JOB SATISFACTION

Table 6. Job satisfaction results

Dimension	Item	Never	Almost never	Sometimes	Almost always	Always
Physical conditions	Do you believe that physical conditions can improve worker job satisfaction?	0.00%	1.03%	7.22%	31.96%	59.79%
	Do you consider that your home has a spacious yet welcoming physical environment in which to work?	2.06%	10.31%	16.49%	47.42%	23.71%
	Are you satisfied with the work environment in which you perform your duties?	1.03%	7.22%	21.65%	44.33%	25.77%
	Do you consider your work environment to have adequate ventilation and lighting?	0.00%	5.15%	21.65%	30.93%	42.27%
	Do you think your work environment is clean and tidy?	0.00%	11.34%	17.53%	31.96%	39.18%
Employee benefits	Are you satisfied with the salary you receive?	3.10%	11.30%	17.50%	42.30%	25.80%



	Do you believe that the remuneration you receive is in line with the company's profits?	4.10%	12.40%	29.90%	27.80%	25.80%
	Do you think the remuneration is attractive compared to other companies?	3.10%	4.10%	27.80%	35.10%	29.90%
	Does the company provide you with opportunities for advancement in your job?	3.10%	9.30%	22.70%	39.20%	25.80%
	Does the company recognize staff with higher education?	1.00%	7.20%	16.50%	41.20%	34.00%
	Is there job stability in the company?	1.00%	2.10%	16.50%	46.40%	34.00%
	Do you believe that the company promotes the personnel that best performs their activities according to the job position?	0.00%	6.20%	18.60%	38.10%	37.10%
Interpersonal relationships	Do you think your team is ideal?	3.10%	7.20%	14.40%	41.20%	34.00%
	Do you believe that employees are committed to teamwork?	3.10%	2.10%	11.30%	41.20%	42.30%
	Do you believe that the leader is the one who encourages teamwork among your colleagues?	2.10%	5.20%	14.40%	33.00%	45.40%
	Does the company encourage good relationships between co-workers?	3.10%	2.10%	9.30%	33.00%	52.60%
	Is communication between managers and subordinates smooth and clear?	2.10%	3.10%	16.50%	35.10%	43.30%
	Does the company have adequate means of communication to convey messages?	3.10%	4.10%	7.20%	33.00%	52.60%
	Do you think that the company provides sufficient information on training?	5.20%	3.10%	21.60%	30.90%	39.20%

According to the results of the job satisfaction survey 50% of respondents agree with the hypothesis put forward in this article, as they state that "always" physical conditions, i.e., ergonomic conditions of the home workplace can improve job satisfaction.

On the other hand, within the physical conditions, it is important to highlight that in the criterion of almost never, the highest percentage was obtained in the question "Do you think your work environment is clean and tidy?". This indicates that "order and cleanliness at work are factors of great importance for health" and that through the application of such techniques the work performance of employees is favored (Rebolledo Oleas & Solarte Méndez 2010). Within this same dimension, only 23.71% consider that they have a spacious and welcoming space to work. The latter is reasonable, since most people did not expect to have to spend so much time at home performing their work duties and their space might not be prepared to face this event.

Regarding the dimension of employment benefits, none of the highest percentages of each question were in the "always" criterion. As for compensation received according to company earnings, the highest percentage is in the "sometimes" criterion and has the highest percentage of all questions in the "almost never" score. The latter may be due to the fact that most of the respondents would like to receive an increase in their salaries, as they perceive that the effort required in the home office could be recognized by receiving higher compensation.

Finally, referring to the results obtained in the third dimension of job satisfaction, regarding information about training, this was the question that obtained the highest percentage in the score of "never". For this reason, companies should provide more information about training, and as a consequence, bet on the continuous growth of their employees who are always looking to continue learning and developing personally and professionally. On the other hand, the lowest percentage rated as "always" is that of the ideal work team; however, this is not a significant figure. Finally, more than half rated as "always" that the company where they work encourages good relationships among colleagues and that the means of communication through which messages are transmitted are effective. It is important to have quality internal communication, because it encourages interaction and commitment of workers, making them feel more integrated into the company and at the same time facilitates mass communication within the company, keeping everyone informed of the latest developments.

### **PHASE 3: CORRELATION BETWEEN LEST METHOD AND JOB SATISFACTION**

As previously established in the methodology, the correlation between the results shown for both variables was carried out. First, an Anderson-Darling statistical normality test was performed to verify that the results are normally distributed. After that, the Pearson correlation and its respective analysis were developed.

FAs for the overall correlation, that is, between the total final result of the LEST questionnaire and that of job satisfaction, -0.232 was obtained as a response with a p- value of 0.022. These indicate a statistically significant inverse relationship (p- value<0.05). The p-value of less than 0.05 provides sufficient statistical evidence to reject the null hypothesis (H0) stated in the introduction and, therefore, to accept the alternative hypothesis (H1), which establishes that there is a correlation between the physical and psychosocial ergonomic conditions of the home office and the job satisfaction of employees in the service sector.

On the other hand, some more specific correlations between dimensions of the LEST Method and job satisfaction scores:

- **Psychosocial aspects vs. job satisfaction:** Psychosocial risks can impact everyone in a company and across different job roles. This happens because they involve our mental, physical, and social well-being, which can be influenced by how we work and how we relate to others in the workplace. Similarly, when working from home, there are job-related stress factors like communication challenges, having too much work to do, not managing time well, and having both work and family activities in the same space (Sánchez-Toledo Ledesma, A., 2021). As mentioned above, in order to refer to psychosocial ergonomics, the LEST Method dimension of psychosocial aspects was correlated with job satisfaction; however, the result was not significant, since the p-value was 0.057 and it is not possible to state that there is an inverse correlation between the two.
- **Mental workload vs. job satisfaction:** In an article developed in Mexico on the estimation of the mental workload generated by the home office during the quarantine period, people who worked from home presented mental work overload. In addition, they stated that their work required considerable mental effort with high demands at the time of making important decisions. This study was able to demonstrate that the

increase in tasks, not only in the work environment but also in the personal and family environment, caused individuals to have a considerable mental workload during their work in the home office modality (Amado, B., et al., 2020). In order to check how the mental workload triggered by the home office affects the job satisfaction of employees in the service sector, the correlation between the mental workload dimension, which was rated as the least satisfactory in the LEST Method, and the total rating obtained in job satisfaction was carried out. A relationship of -0.232 with a p-value of 0.22 was reached, which leads to the conclusion that there is a significant inverse correlation between the two. This last correlation could be justified on the basis of arguments about work psychology, which consider the effects of workload in terms of stress, mental and emotional health, social interaction, among others.

## **5.2 Validation**

The finding of the present research is the inverse and statistically significant correlation between the job satisfaction variable and ergonomic conditions in the home office. Similar studies have not been found because this work modality is recent and there are still no articles about it. In this way, the importance of ergonomic conditions in the workspace is demonstrated, within the framework of a new work context that has arisen as a result of the pandemic. To expand this research, a more specific approach could be made, by studying the most covid affected sectors.

The results obtained in the sample of 97 employees in the service sector in Peru, show that an average of 23% of respondents reported having average discomfort in the mental workload dimension, which compares with the study conducted in Spain by the National Institute of Safety and Hygiene at Work (INSHT). The latter establishes that 22.5% of employees consider that work has a considerable effect on their health, and 28% of these indicate stress as the determining cause and the second health problem at work (Aboitiz, X. 2008).

This research has used the LEST method that is applied in face-to-face work which is originally designed for work where there is a physical and repetitive effort involved in face-to-face work... a specific tool could be developed. Based on the study.

Finally, the LEST method questionnaire was used, but not in the home office. For this reason, a specific tool could be developed to evaluate the ergonomic conditions of the home office, since some companies will remain in this new modality. This is evidenced in a study by Adobe Forrester, which shows that 39% of companies state that they will adopt telework permanently. Likewise, the ILO states that the home office will not end with the end of the pandemic, as it will be part of the new normal in the future along with other digitalization tools (Forbes Staff, 2021).

## **6. Conclusion**

After performing the Pearson correlation between the results obtained in the evaluation of the LEST Method and the job satisfaction survey, it is concluded that there is a correlation between the physical and psychosocial ergonomic conditions of the home office and the job satisfaction of employees in the service sector in Peru.

Finally, mental workload is the dimension of the LEST method that has the most significant correlation with job satisfaction, and since it is inverse, it indicates that the greater the mental workload, the lower the job satisfaction of the worker in the home office.

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