

The implications of home office adaptation during the COVID-19 pandemic: an experimental analysis on the Quality of Work Life

As implicações da adaptação do home office durante a pandemia do COVID-19: uma análise experimental sobre a qualidade de vida no trabalho

Las implicaciones de adaptar el home office durante la pandemia de COVID-19: un análisis experimental de la calidad de vida en el trabajo

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Abstract

The COVID-19 pandemic brought uncertainties to the social, economic and political scenario, leading to extraordinary challenges to firms. This paper sheds light on how the home office adaptation affects the Quality of Work Life (QWL). We conducted an experiment with 322 participants to understand the mechanism by which tests the effect of home office adaptation on the QWL. Our results point out that companies that adapted better to home office positively impact the participants' perception of QWL. We expect to contribute to the organizational theory and human resources field by providing empirical data about the adaptation to the home office and expectation of QWL. Furthermore, we provide evidence to practitioners who may get advantage of our experimental strategy to suit their firms better to this new scenario.

Keywords: Quality of Work Life; Home Office; COVID-19; Experiment.

Resumo

A pandemia do COVID-19 trouxe incertezas ao cenário social, econômico e político, levando a desafios extraordinários para as empresas. Este artigo esclarece como a adaptação ao home office afeta a qualidade de vida no trabalho (QVT). Realizamos um experimento com 322 participantes para entender o mecanismo pelo qual testa o efeito da adaptação do home office na QVT. Nossos resultados apontam que as empresas que se adaptaram melhor ao home office impactam positivamente na percepção de QVT dos participantes. Esperamos contribuir para a teoria organizacional e o campo de recursos humanos fornecendo dados empíricos sobre a adaptação ao home office e expectativa de QVT. Além disso, fornecemos evidências para os profissionais que podem se beneficiar de nossa estratégia experimental para adequar melhor suas empresas a esse novo cenário.

Palavras-chave: Qualidade de vida no trabalho; Trabalho remoto; COVID-19; Experimento.

Resumen

La pandemia de COVID-19 ha traído incertidumbres al panorama social, económico y político, generando desafíos extraordinarios para las empresas. Este artículo aclara cómo la adaptación al home office afecta la calidad de vida en el trabajo (CVT). Realizamos un experimento con 322 participantes para comprender el mecanismo por el cual probamos el efecto de la adaptación de la oficina en casa en la QWL. Nuestros resultados indican que las empresas que se han adaptado mejor al home office tienen un impacto positivo en la percepción de CVL de los participantes. Esperamos contribuir a la teoría organizacional y al campo de los recursos humanos proporcionando datos empíricos sobre la adaptación de la oficina en el hogar y la expectativa de QWL. Además, proporcionamos evidencias para que los profesionales puedan beneficiarse de nuestra estrategia experimental para adaptar mejor sus empresas a este nuevo escenario.

Palabras clave: Calidad de vida laboral; Trabajo remoto; COVID-19; Experimento.

1. Introduction

The global COVID-19 pandemic and the uncertainties associated affected all spheres of society beyond health, from the economy to social interaction (Souza, 2020; Tremblay et al., 2021). Due to the lack of vaccines and medicines to face the problem, health authorities defended social distancing as the main strategy to reduce the spread of the virus by limiting close contact with others (Capano et al., 2020; Galea et al., 2020; WHO, 2020; Tremblay et al., 2021).

Firms had to make quick decisions about work management in an atypical scenario. Overnight, firms had to adapt and react quickly to create new ways of working to continue their activities (Wecker et al., 2021). In the midst of a psycho-emotional context affected by the health crisis, and with an enormous fear of contamination by the virus, firms had to decide on preserving the quality of life of their employees (Stafie et al., 2021; Von Gaudecker et al., 2020). As a result, firms adopted the home office due to the restrictive measures enacted by state governments to keep social distancing (Belzunegui-Eraso & Erro-Garcés, 2020; Bolisani et al., 2020).

Based on the pressing need to respond to the COVID-19 pandemic, clinical trials and epidemiological studies have been undertaken, however less attention has been paid to the contextualized experiences and meanings attributed to the strategies to mitigate the virus spread on workers (Lippert et al., 2021; Tremblay et al., 2021). This paper examines the relevance of home office adaptation in capturing deeper understandings of current lived realities of those affected by the pandemic. More precisely, we assess the impact of home office adaptation on Quality of Work Life (QWL). QWL is a multi-faceted construct that captures the favourable conditions and environments of a workplace that support and promote workers' satisfaction by providing them with rewards, job security, and growth opportunities (Bagtasos, 2011; Kulkarni, 2013).

Hence, we join the studies related to QWL through the economic crisis caused by the pandemic, which comprehensively affected the world of work (Claudino et al., 2021; da Silva et al., 2021; Pedrolo et al., 2021; Pereira et al., 2020). To deepen the knowledge about the way firms are managing the routine of Brazilian workers, in order to consider the dimensions of QWL and home office expectations, we proposed the following problem-question: During the COVID-19 pandemic, how did firms' support in adapting to home office work affect the QWL expectations of Brazilian workers?

Answering such research question demanded the latest methodological advances in the social sciences field to test the causal mechanism between home office adaptation and QWL. Thus, we adopted a survey experiment strategy, through the Qualtrics online research platform, as it combines representative samples and random assignment, an innovative technique that contributes to the scientific advancement (Sniderman, 2018; Fong & Grimmer, 2019; Falck, 2021). Our experiment comprised 322 participants to understand the mechanism by which tests the effect of home office adaptation on the QWL. Our results point out that companies that adapted better to home office positively impact the participants' perception of QWL. We expect to contribute to the organizational theory and human resources field by providing empirical data about the adaptation to the home office and expectation of QWL. Furthermore, we provide evidence to practitioners who may get advantage of our experimental strategy to suit their firms better to this new scenario.

2. Literature

Origin and Concept of QWL

Although there is no consensus on the emergence of the QWL concept, some authors consider that it occurred in the 1950s, with the studies of Eric Trist and other researchers who worked at the Tavistock Institute of Human Relations, in London. The focus was improving productivity, reducing conflict, and making workers' lives less painful. Hence, they proposed an approach regarding the forms of work within a firm, considering the triad that comprises the individual, the work, and the firm, aiming at structuring work and achieving employee satisfaction (de Barros, 2012).

The term QWL was first used by Eric Trist in the development of the socio-technical approach to work organization and was a starting point for other studies (de Barros, 2012). At the time, these researchers intended to study the variables, which would later support the concept of QWL. Ferreira and Ramal (2013) believe that the intense standardization, with the prescription of work methods and norms from Scientific Management, as well as the separation between thinking and acting, caused the dehumanization of work, reflected in the high rates of absenteeism and turnover, poor product quality, and worker dissatisfaction.

At that time, managers saw workers as machines, equipment, and capital (Gonçalves et al., 2018). For Handy (1995), the problem started when we turned the perception of time into a commodity, when we bought people's time in our firms, instead of buying production. The longer the worker is involved in production, the more money he will generate for the firm. In the mid-1960s, there was a new phase in the advancement of QWL, which sought to understand the importance of improving work organization, in order to minimize the negative effects on workers, and achieve their general welfare (Tolfo & Piccinini, 2001).

In the seminal article "Quality of Work: what is this?", Walton (1973) reflected on the context where the term "quality of life" emerged, where the perception that humanistic values were neglected in firms prevailed, and where industrialized societies favored technological advancement, industrial productivity, and economic growth. These two perspectives sparked Walton's interest in redesigning the nature of work, so that firms would be able to gain productivity as well as ensure quality of life to their workers. The model correlates productivity and the importance of worker satisfaction and motivation. Workplace dissatisfaction is a problem that affects almost all workers, at one time or another, regardless of position or status. Frustration, boredom, and anger are common feelings seen in employees disenchanted with their work, which can represent a significant cost, both to the worker and to the firm. Many managers seek to reduce dissatisfaction at all organizational levels, including their own, but this is a complex problem, given the difficulty of identifying all the attributes that affect it. Walton addresses this problem comprehensively, defining the main criteria for QWL and examining their correlations. He explores potential conflicts between the defined criteria and discusses them. According to him, the concept of QWL is the guarantee of greater productivity and effectiveness within the firm.

The concept of QWL relates to different fields in terms of its definition. Some models were created to facilitate the application of the theory. In our research, we used the QWL model proposed by Walton (1973) as a reference, later adapted by Rueda et al. (2013), which emphasizes the needs and aspirations of human beings, as well as the worker's social responsibility. The eight categories originally proposed by Walton that define the concept of QWL are presented below (Walton, 1973, p.4):

Table 1. QWL Model Categories.

QWL Model Categories	Definitions
1) Suitable and Fair Compensation:	Fair and appropriate remuneration, providing conditions for a decent life for the worker, and equal to other professionals in the same area.
2) Safe and Healthy Working Conditions:	Facilities to develop the work, concerning the journey, workload, physical environment, materials and equipment, a healthy environment for mental health.
3) Immediate Opportunity to Use and Develop Human Capabilities:	Allowing the worker to develop skills and acquire knowledge in carrying out his/her activity;
4) Future Opportunity for Continued Growth and Security:	Career possibilities, personal growth, and job stability;
5) Social integration in the Work Organization:	No prejudice, No class stratification, relationship marked by mutual help and respect for individuality, and a sense of community;
6) Constitutionalism in the Work Organization:	Consists of workers' rights and duties such as privacy, position, and the right to an equitable treatment;
7) Work and Total Life Space:	Considers that work experiences can influence different areas of life, such as the family;
8) Social Relevance of Work Life:	Refers to the social work that the firm proposes to society. Takes into account the social responsibility of the firm towards the community to which it belongs.

Source: Authors based on Walton's model (1973).

In this research, we analyze the dependent variable "QWL perception", through the evaluation scale developed by Rueda et al. (2013), based on the eight dimensions proposed in the Walton model (1973).

The Context of the COVID-19 Pandemic and QWL

Since March 2020, the traditional way of working was affected, due to the beginning of social distancing for fighting COVID-19. New risks and impacts on workers' routine emerged, thus affecting QWL. With the new ways of working, such as remote management in urban spaces and psychosocial functioning in conditions of distancing, disseminated because of the lockdown, a range of aggravating factors emerged in workers' lives. These factors, in a context of precariousness and new sources of psychosocial risk brought important impacts to QWL in contemporary times (Ferreira & Falcão, 2020).

In this scenario, structural problems have worsened such as the work-health relationship that takes on new contours and new challenges (Ferreira & Falcão, 2020). According to these authors, before the pandemic indicators of diseases and accidents at work were already significant, and may have worsened in this new context, increasing the risks for QWL. Some categories were directly affected, such as the income and working conditions of Brazilian families. IBGE (Brazilian Institute of Geography and Statistics) states that women represent 46.3% of the workforce, including those working and those seeking employment. It is the lowest number since 1990, when the index was 44.2%. For the institute, this drop in participation shows that women are the most affected by the economic crisis intensified by COVID-19 (Rede Brasil Atual, 2020).

The National Survey by Household Sampling (PNAD Contínua, in Portuguese) also shows a difference in the unemployment rate of men and women, in the fourth quarter of 2020. The percentage was 11.9% for men and 16.4% for women. Among black people, the rate was 17.2%, while for brown people it was 15.8%, both above the national average

(13.9%). The rate for white people (11.5%) was below the average ((IBGE, 2020). The analyses showed differences in the level of occupation for men and women; that is, the proportion of working men aged 14 or over was higher than that of working women of the same age group. In the 2nd quarter of 2020, the employment level of men in Brazil was estimated at 57.6%, and that of women at 39.4% (IBGE, 2020). With the new working scenario with the Coronavirus, due to social distancing, many workers had to adapt to home office.

The challenge of balancing work, family, and personal life

According to Lockwood (2003), work/life balance emerged as a prevalent issue in a society where responsibilities are conflicting, covering the following factors: (i) competition at a global level; (ii) renewed interest in preserving personal life/family values; and (iii) an aging workforce. Therefore, people management in firms must seek innovative ways to increase competitive advantage, while creating conditions for balancing workers' work/personal life, in a win-win solution.

The term “work/life balance” became widely used in 1986, although there were already initiatives that aimed to create better working conditions. For example, the Kellogg Firm created four six-hour shift programs to replace the traditional three eight-hour daily shifts, which resulted in increased worker motivation and productivity (Lockwood, 2003). In the 1980s and 1990s, the relevance of the subject in the United States, as in other global communities increased, and firms began to offer work/life programs. At first, the initiatives were intended to support women with children. In the early 2000s, programs abandoned the emphasis on gender and became more comprehensive (Lockwood, 2003). Workers wanted more flexibility and control over their work and personal lives.

The scientific community agrees that a moderate level of stress can be beneficial, and most people know how to handle it. However, increasing levels of stress can quickly lead to “low employee morale, productivity, and decreased job satisfaction” (Lockwood, 2003, p. 6) Specific symptoms that affect productivity directly are: “excessive sick leave, fraud, chronic absenteeism, mistrust, embezzlement, organizational sabotage, delays, task evasion, and violence in the workplace”. Other serious effects are depression, alcohol and drug abuse, marital and financial problems, eating disorders, and burnout.

The essential aspects for managers to monitor the work/life balance indicator are management of worker time; talent retention; increased motivation and productivity; absenteeism; and, finally, reduction of stress-related illness costs (Lockwood, 2003, p. 7). According to Lockwood (2003), programs that aim to create conditions for work/life balance have the potential to improve worker morale, in addition to reducing absenteeism and retaining organizational knowledge, especially in difficult economic times. Thus, both sides win, the firm and the workers.

However, the work environment has become more complex, and the theory called "Job Demands and Resources" (JDR), which can be understood as "work demands-resources model", has been used to handle the functioning of contemporary firms, immersed in a highly technological environment, with numerous work tools, which accelerated access to information. However, in its turn, it increased the productivity demands and expectations. As a result, workers began to suffer from overload, which directly affects their QWL, as it brings harmful factors that affect their health and well-being.

Demands or requirements make up “the aspects arising from the profession and the firm, which require significant physical, cognitive, and emotional effort on the part of workers” (Moura, 2013, p. 3). The demands can be broken down into specific sets that support mapping working conditions:

These demands can be quantitative (overload, high work pace), mental (extreme concentration, complex decision making), socio-emotional (to show positive emotions when feeling the opposite), physical (heat, cold, loading and unloading jobs), organizational (role conflicts, role ambiguities, job insecurity), and, finally, work-family demands (night shift, caring for others within the family).

On the other hand, labor resources, when properly offered, can soften labor demands and enable activities developed by professionals to achieve organizational goals. Moura (2013, p.3) describes the characteristics of the resources addressed in that theory:

Such resources are physical (ergonomically organized workplace, good temperature), task resources (feedback, task variety, role clarity, autonomy), social resources (social support, colleagues, coaching), organizational resources (career development, training), and work-family resources (flexible hours, support from family members).

The tension observed in the work environment results from the imbalance between individuals' demands and the resources available for dealing with them. Based on the above, our goal was to analyze in depth the scenarios of Brazilian workers' home office, from the perspective of QWL.

Hypotheses

Considering the goal of understanding how the stimulus "adaptation of firms to home office" affects the expectations regarding QWL, we considered that adaptation refers to (i) availability of furniture for its workers; (ii) financial contribution for internet expenses and energy of its workers; and (iii) availability of appropriate training for work execution from home office, based on the theoretical framework.

With the measures of social distancing, enacted in March 2020, a significant number of workers and firms faced with the home office modality, for the first time. Until then, the closest reference was teleworking, regulated in the labor reform of 2017. We highlight then some characteristics of the sudden adaptation to the home office by millions of Brazilians. When changing from the corporate environment to the domestic one, many workers faced situations of not having space at home for working, neither ergonomic furniture.

In September 2020, the Labor Prosecution Office (MPT) issued a technical note with 17 recommendations for implementing the home office, among which ergonomic parameters stand out, in compliance with NR n. 17. It is up to firms to adopt the following measures "physical or cognitive working conditions (for example, furniture and work equipment, network connection, design of online working platforms)" (MPT, 2020). The text leaves no doubt about the employer's responsibility for providing these goods, necessary to meet the established parameters, either offering or reimbursing the worker. However, there is no law regulating the home office adaptation up to the 2017 labor reform, which regulated teleworking mode.

It is relevant, not only in terms of preserving the worker's health, but also of avoiding legal disputes, a conduct where the firm provides the furniture to its workers, respecting the ergonomic guidelines established in NR. 17. It is also important that the employer contribute to the Internet and energy expenses of their workers. These resources, together with the training to adapt to the new system, can prevent disease and accident indicators from increasing in this complex context, in order to mitigate the effects on QWL.

As warned by Veiga and colleagues (2021), the workers' mental health should not be neglected during home office. This understanding is in line with the recommendation from the Labor Prosecutor, Adriane Reis, that the firm, by offering appropriate infrastructure, as well as bearing the expenses arising from this new modality, would help to avoid generating more tension from the work activity. The worker needed to acquire more expensive internet packages, besides paying higher electricity costs, in order to set a work environment at home. In addition, the lack of socialization resulting from the pandemic caused symptoms related to anxiety and concern with family members, regarding uncertainties about the future.

In the theoretical framework, we addressed the importance of ergonomics, which aims to reduce fatigue and stress, in addition to accidents, contributing to preserve workers' health and safety, besides motivating work activities (Araújo & Junior,

2022). MPT's Technical Work Group COVID-19/2020, created to support firms with guidelines during the pandemic, uses NR-17 on Ergonomics in several articles, in order to ensure workers' comfort, safety and efficient performance.

The profusion of news about the problems and advantages of home office appeared in the major communication channels. Some considered this modality a nightmare, when faced with the exercise of professional activity mixed with family issues in the same place, without privacy, overload of activities, without free time outside of working hours. Valente (2022) discussed the difficulty for establishing boundaries between professional and personal life, in a particularly complex context. Therefore, it was very important that firms offered training, not only related to the technologies adopted, but also personnel management tools to preserve the defined limit of workload.

Thus, we had the sudden configuration of a complex environment, which required firms to act more actively to preserve workers' health and respect the requirements of labor laws. And, on the other hand, scales to measure the worker's QWL. The Walton Model (1973), as previously described, was created for QWL analysis in standard physical space, differently from what is being proposed in this study. However, it is remarkable that home office is similar in aspects that affect the QWL of workers in this modality, making it possible to test if there is a significant relationship between the corresponding variables.

Next, we show what was analyzed in the QWL categories presented by Walton (1973), with the adaptations developed by Rueda et al. (2013), in view of the new scenario of working from home during the pandemic. Among the four factors presented by Rueda et al. (2013), in this research we used 2 factors that are closer to the current reality of home office:

- 1) Possibilities for leisure and social interaction: at home office, many workers had difficulty separating personal and professional life, which caused some bad impacts on their lives.
- 2) Incentive and support: during home office, workers faced some limitations to do their activities, and there was a need for financial support and incentive to face a new type of work.

Based on these concepts, about the variables QWL and home office, we proposed the following general hypothesis:

Hypothesis 1 (H1): *The adaptation of firms to home office affects the QWL of Brazilian workers during the COVID-19 pandemic.*

The following are additional hypotheses:

Hypothesis 2 (H2): *The adaptation of firms to home office affects the possibility of leisure and social interaction for Brazilian workers during the COVID-19 pandemic.*

Hypothesis 3 (H3): *The adaptation of firms to home office affects the encouragement and support of Brazilian workers during the COVID-19 pandemic.*

Home office relates to QWL, as it can be a means for providing workers with opportunities to reconcile professional activities with personal life. In fact, one of the arguments used by firms to adopt this modality is to improve workers' quality of life (Barros & Silva; 2010; Alves, 2021). If, on the one hand, the worker can notice advantages in flexible schedules, on the other hand, there are costs associated with home office. Studies have shown that dissatisfaction with this model lies in the work overload it can cause, since many workers do not feel prepared for self-management. This situation can be mitigated by training on time management, work organization, and the use of computer and communication systems (Tremblay, 2002). Hence, we anticipate that participants of the experiment would perceive, in a positive way, that the firms which adapted better to home office, during the COVID-19 pandemic, contributed to the quality of life of Brazilian workers.

3. Methodology

We employed a survey experiment as an identification strategy to test how the independent variable - firms' adaptation to home office -, affects the dependent variable - QWL expectations. Survey experiments allow testing the causal

mechanism, as they combine representative samples and random assignment, an innovative technique that contributes to the accuracy of scientific advancement (Sniderman, 2018; Fong & Grimmer, 2019; Falck, 2021). Also considering the latest methodological advances in the field of social sciences, according to the Annual Review of Political Science (2018), we used a survey experiment to test the hypotheses, through the Qualtrics online research platform.

Population and Sample

In this study, the universe are Brazilian workers who performed their professional activities at home office during the COVID-19 pandemic. To analyze the data involving QWL expectations, we selected participants by convenience sampling across the national territory, recruited online through social networks. We achieved 322 participants, using the Qualtrics software.

Study Variables

This study comprises three dependent variables that translate QWL. (1) General QWL, from the factor analysis of the 14 items of the QWL scale (varimax rotation); (2) QWL of component 3 (Possibilities for leisure and social interaction), according to factor analysis of the 6 items of the QWL scale (varimax rotation); and (3) QWL of component 4 (Incentive and support), according to factor analysis of the 8 items of the QWL scale (varimax rotation). The QWL scale used is described below.

Rueda and colleagues (2013) validated the QWL Scale in Portuguese, which showed good psychometric conditions from the analysis of its main components with varimax rotation. We used confirmatory factor analysis to test if measures of the QWL construct were consistent with the researchers' understanding of the construct's nature. The scale provides evidence of validity regarding the internal structure of the items. As to precision indices, we calculated Cronbach's Alpha coefficient in the four dimensions, translating the reliability of the experiment with freedom from random errors. In this study, we used only two dimensions (Possibilities for Leisure and Social Interaction; and Incentive and Support). Finally, we analyzed the factors obtained in the confirmatory factor analysis by using Pearson's correlation coefficient. As the QWL Scale portrays working conditions in different organizational environments, and is based on Walton's model (1973), it proved to be appropriate for measuring the dependent variable of the present study.

The QWL Scale has 35 items, with responses on a five-point Likert scale, ranging from "I totally disagree" to "I totally agree", with a score from 1 to 5 (Rueda et al., 2013). The items were adapted to the eight dimensions defined by Walton (1973) and grouped into four factors. For this research, we used factors 3 and 4 to measure QWL expectations and test the hypotheses developed in the theoretical background. Such factors are: "Possibilities for Leisure and Social Interaction", which is linked to Hypothesis 2 (H2): The adaptation of firms to home office is associated with the possibility of leisure and social interaction for Brazilian workers, during the COVID-19 pandemic; and "Incentive and Support", which is linked to Hypothesis 3 (H3): The adaptation of firms to home office is associated with the encouragement and support of Brazilian workers during the COVID 19 pandemic.

The factors and factor loadings of the components are shown in Table 2:

Table 2. Factor Loadings of Rotated Components (Varimax) extracted from Main Axis Factors and commonalities - QWL Scale.

Components	3	4
<i>My job allows me to have leisure time with my family</i>	0.78	
<i>During my workday, I have time to dedicate myself to the family</i>	0.76	
<i>Working hours allow social interaction outside the firm</i>	0.74	
<i>My working schedule allows planning activities in advance</i>	0.70	
<i>My workload is appropriate</i>	0.67	
<i>After my workday, I am able to carry out other activities</i>	0.46	
<i>The firm provides periodic training</i>		0.62
<i>Overtime is paid</i>		0.61
<i>The firm encourages me to carry out cultural activities</i>		0.57
<i>The firm offers opportunities of promotion to employees</i>		0.56
<i>The activities I must do are planned in advance</i>		0.53
<i>I am encouraged to take courses for improvement</i>		0.53
<i>The firm offers gymnastics</i>		0.52
<i>The firm offers the opportunity to work overtime</i>		0.49
Number of items	6	8

Source: Adapted from RUEDA. et al. (2013).

The independent variable shows the firm's adaptation to home office during the pandemic, from a baseline that indicates the "basic package" of indicators that Brazilian firms adopted. In general, firms provided equipment and furniture to their employees, intended to work ergonomics, in addition to training in software tools that facilitate time management during home office. In addition, we checked in field research that some firms helped their employees to pay for electricity, internet and telephone bills, a variable cost that increased substantially with the adoption of home office and the need for a greater data package and use of air conditioning, for example. We describe how we handled such indicators from the basic package in the next section. Finally, we included control variables to perceive sociodemographic trends: gender, age, color, marital status, education, professional experience, state of residence, number of children, support network, and social class.

Data collection

Measuring the effect of firms that adapted to working from home on QWL expectations demanded the manipulation of the independent variable by randomly assigning scenarios to participants and measuring the dependent variable by using a validated scale. We carried out a pre-test with sixteen colleagues in order to adjust the manipulation and research design, from September 28, 2021 to October 9, 2021.

The recruitment of participants for the survey experiment aimed at sociodemographic diversification and heterogeneity. Thus, we spread the survey link in different social media groups, such as Facebook, Whatsapp, Instagram, Twitter and LinkedIn. Data collection period was from November 8 to 24, 2021. The average time for completing the experiment was 9 minutes.

At first, we presented the Free and Informed Consent Term (FICT). It strictly followed the research protocol, explaining that there were no risks related to participating in the study, since the participant was not identified and the answers were kept confidential, and analyzed only in aggregate.

Next participants were asked to imagine themselves working in the firm they would see next. After being randomly distributed, we presented one of the following hypothetical scenarios:

***Firm A** - provided furniture to its employees; contributed financially to employees' internet and energy expenses; provided appropriate training for carrying out work from home.*

***Firm B** - provided furniture to its employees; did not support employees' internet and electricity expenses; provided appropriate training for carrying out work from home.*

***Firm C** - did not provide furniture to its employees; did not support employees' internet and electricity expenses; did not provide appropriate training to carry out work from home.*

The manipulation of the independent variable from the three experimental conditions identified the impact of the firm's adaptation to home office, during the pandemic, on the participants' quality of life at work. Based on the scenario, the participants answered the items referring to the QWL scale. To measure the dependent variable, we applied the Quality of Work Life Assessment Scale (QWL Scale), developed by Rueda et al. (2013). After measuring the QWL Scale, participants answered the following sociodemographic questions: gender, age, color, marital status, education, professional experience, state of residence, number of children, support network and social class.

Data Processing

The responses obtained were exported to the Stata 16.1 Macbook software for the statistical treatment of the experimental data. For the hypotheses tests, we used the Analysis of Variance (ANOVA) statistical technique. This procedure tests if the means of the groups are the same or different, through two hypotheses: the null hypothesis (H0) and the alternative (H1). ANOVA allows evaluating claims on population means. ANOVA tested the means of the general QWL, so that each component tested the hypotheses, called ANOVA ONE-WAY, in order to check if there are statistical differences between the means of the three groups.

4. Results and Discussion

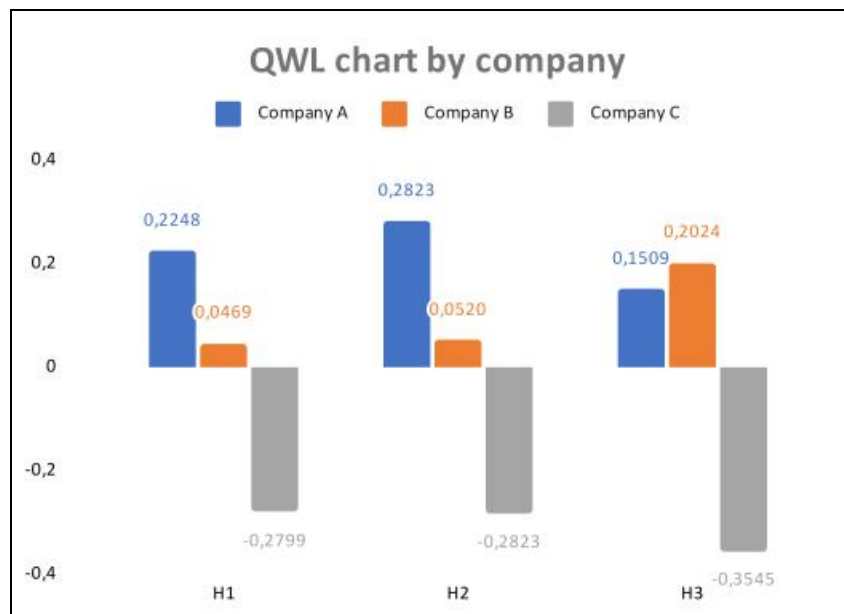
There were 322 participants, but only 305 completed the experiment. 102 participants viewed firm A (33.44%), 102 viewed firm B (33.44%), and 101 referred to firm C (33.14%). The sample was composed of 42.16% of women, 33.95% of men, and 22.74% of participants who did not inform their gender. Most participants were over 35 years old, with higher education. Regarding age, we identified that the largest audience was between 35 and 54 years old, with 41.43% of participants, the others with 25.54%, from 18 to 34 years old, 8.09% over 55 years old, and a significant group of 24.84% that gave no information. We identified an 11-year-old participant that we drop of the sample, given that the Brazilian labor legislation does not allow children under 14 to work. Regarding education, the predominant level was Undergraduate, with 52.31%. In addition, 18.5% had a High School degree, an unexpected result. Despite the limitation of opportunities in the labor market, for example, in the years 2020 and 2021, workers with incomplete and complete high school degree were the most affected by the pandemic (Góes et al., 2021).

To ensure that the instrument used in the research was able to measure what we proposed, we calculated Cronbach's Alpha Coefficient (α), which is a commonly used measure of reliability. Values range from 0 to 1.0; the closer to 1, the higher the reliability between the indicators (Bland & Altman, 1997). In this experiment, for the general dimension of QWL expectations, we achieved a value of 0.89, considered satisfactory in terms of a questionnaire's reliability. For dimension 3, on

the Possibility for Leisure and Social Interaction, the value achieved obtained was 0.89; and for dimension 4, Incentive and Support, the value was 0.83. These data show the positive reliability of the study.

Graph 1 illustrates the ANOVA results in this experiment. For H1: ($F(2, 245) = 6.81, p < 0.001, \eta^2 = 0.15$), pairwise comparisons showed that participants viewing firm C rated QWL expectations worse ($M = -0.282, SD = 0.724$), while participants that saw firm B evaluated ($M = 0.147, SD = 0.853$), and those of firm A ($M = 0.132, SD = 0.943$). In H2: ($F(2, 256) = 9.33, p < 0.001, \eta^2 = 0.288$), pairwise comparisons showed that participants in firm C rated QWL expectations worse ($M = -0.286, SD = 0.713$), while participants of firm B evaluated ($M = 0.049, SD = 0.822$), and firm A ($M = 0.227, SD = 0.836$), which was more evident. Finally, H3: ($F(2, 246) = 11.38, p < 0.001, \eta^2 = 0.059$) pairwise comparisons showed that participants in firm C rated QWL expectations worse ($M = -0.355, SD = 0.703$), while participants of firm B evaluated ($M = 0.196, SD = 0.881$), and firm A ($M = 0.159, SD = 0.898$).

Graph 1. QWL Expectations by Firm.

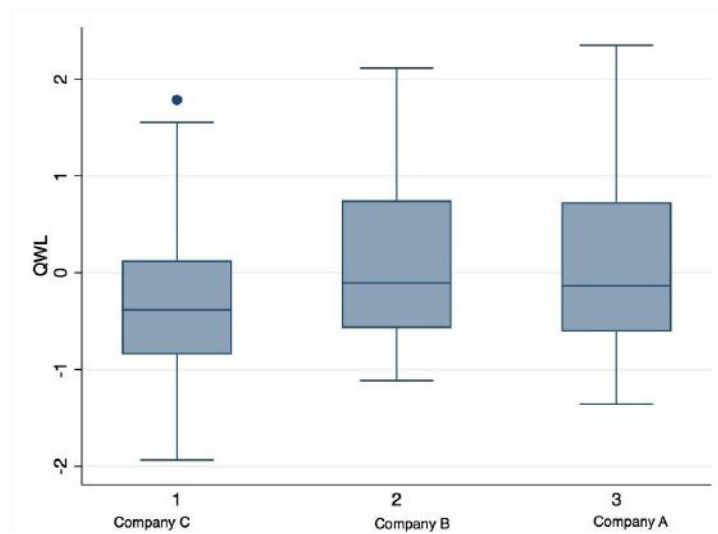


Source: Authors.

The ANOVA results, significant at 1%, confirm the study's hypotheses. The differences between the means shown in Graph 1 are significant in the three scenarios. They confirm, therefore, that the vectors of the means of the three groups are not the same; that is, home office directly affects QWL expectations, according to the analysis of participants' attitudes in the experiment.

Graph 2 presents the boxplot of firms, as a visual analysis of their position, dispersion and participants' outliers for each scenario, and the relationship with QWL.

Graph 2. Boxplot of Firms in the Experiment.



Source: Authors.

The median of the participants who viewed firm C indicates worse QWL expectations compared to participants who viewed firms A and B, in the manipulation of the independent variable. This suggests that the firm's worst adaptation to home office affects the QWL expectations negatively. On the other hand, participants who imagined working in firm A or firm B did not present a significant difference of the variable. It should be noted the outlier of firm C, which we decided not to drop to capture everyone's participation in the experiment.

Results indicate that manipulations on firms' adaptation to home office affect the QWL expectations of Brazilian workers ($F=6.81$, $p<0.001$), in adequate levels ($M= 1.13$; $SD=0.86$). Hence, there is evidence for rejecting the null hypothesis of equality between the means, confirming research hypothesis 1(H1). In addition, hypothesis H2 questions if manipulations on possibilities for leisure and social interaction affect QWL expectations ($F=9.33$, $p<0.001$), at significant levels for research ($M=-9.70$; $SD= 0.81$), confirming that there is causality, so H2 was accepted. Finally, hypothesis H3 on manipulations of incentives and support from firms influencing QWL ($F=11.38$, $p<0.001$), with relevant levels for research ($M=5.38$; $SD=0.86$), also confirm causality between the variables, so H3 was also confirmed. The results of the experiment show the significant impact of firms' adaptation to home office on the QWL of Brazilian workers.

5. Conclusion

This paper examines the relevance of home office adaptation in capturing deeper understandings of current lived realities of those affected by the pandemic. More precisely, we assess the impact of home office adaptation on QWL. Results indicate that QWL is influenced by the home office adaptation during the COVID-19 pandemic, confirming Hypothesis 1 (H1): *The adaptation of firms to home office affects the QWL of Brazilian workers during the COVID-19 pandemic*. When talking about workers who do their activities remotely, the new reality needs attention. Working conditions must be prioritized, regardless of the location - within or outside the organization.

The survey experiment allowed us to observe relevant aspects for the analysis of the variables QWL and home office. The first point to highlight is the relationship between Firms A and B, which were well evaluated, because, in participants' view, if the firm somehow assists the worker in his/her working conditions, it already contributes to QWL. In Hypothesis 2 (H2): *The adaptation of firms to home office affects the possibility of leisure and social interaction for Brazilian workers during the COVID-19 pandemic*, it does not have to be necessarily a complete support, but it contributes directly or indirectly,

and was well evaluated by the participants. This conclusion is remarkable when we look at the analysis of the means in this hypothesis.

Another interesting relationship between Firms A and B was the inversion of the averages, in Hypothesis 3 (H3): *The adaptation of firms to home office affects the encouragement and support of Brazilian workers during the COVID-19 pandemic*. It should be noted that results regarding Firm C scenario, which does not contribute with any resources to workers working from home. The participants concluded that not contributing to a better QWL in home office affects the QWL of these professionals negatively. Without the firm's support to develop activities in places far from the office, this worker will not have an appropriate QWL.

The confirmation of all three hypotheses testing the causality of home office adaptation affecting QWL results in a progress on this subject. Management literature lacks empirical studies on this topic; therefore, new important questions can emerge from the results presented here. Currently, there is no prediction on when the COVID-19 pandemic will finish; however, what is quite clear is the increase in the home office modality for Brazilian workers. Hence, the QWL of these workers has been increasingly affected, which brings an opportunity for reflection to entrepreneurs and managers of large and small firms.

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