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ORGANISATIONAL CULTURE SHIFTING INTO ONLINE LEARNING. VIRTUAL LEARNING PRACTICES

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Abstract:

History taught us that the best time to talk about adaptability and innovation is that of disruption, crisis and adverse conditions. This research paper addresses the pre- and post-pandemic learning environment in terms of online and classroom delivery. The main objective of this research paper is to analyze factors that have been impacted by the shift from face-to-face (or in person) to online learning practices, assessing elements related to a learning session as: logistics, participation adoption, tools, feedback and geographical span. As research method, the approach incorporates a case study on the European population of one of the major players in the service industry in analyzing European relevant training data points, over a period of three years. Reasoning of data comparison is aligned to data relevance, hence one-year pre pandemic versus two years in the forced virtual delivery of pandemic conditions. The main aspects under research were aiming for a found analysis of a sustainable shift while understanding the implications of such changes. The result of the study shows a positive learning landscape, with multiple opportunities for those ready to adapt, a trusted tool for sustainability and yet at the early age of becoming one of the core elements for keeping relevant in the business imperatives. The element of novelty in this study suggests impact, shift, dependability and responsibility for learning at scale; and the global impact of the adapted learning opportunities, such as awareness, relevance and adoption rate of learning offerings.

Key words: *Online Training, Learning, Work for Home, Sustainability*

1. Introduction

The global pandemic that began in 2020 has profoundly changed business models, global competition and environmental protection actions. Working from home (WFH) has become the new normal across most industries, competition is increasingly impacted by

digitization, the exploitation of large databases and digital literacy, and environmental protection actions tend to become common practice for companies and individuals. The current pandemic reinforced the old saying that the only constant in life is change. The global health crisis of 2020 impacted heavily on the economy, thus forcing companies to rethink and adapt their activities in a very short period of time.

From March 2020, organizations have been forced to continuously adapt their business strategies, work models, cultural and organizational values. Companies are increasingly turning to outsourcing as a solution to reduce costs, increase flexibility and drive greater business value. Outsourcing is defined as "Contractual agreement according to which the principal requires the contractor to carry out specific tasks, such as parts of a production process or even the full production process, employment services or support functions." (Eurostat, 2008). The estimation of the Global Business Process Outsourcing Market size depends on the organization that make the assessment, the size being difficult to calculate given the dispersion of the outsourcing activity across sectors and companies. According to Acumen Research and Consulting (2022), this market amounted to USD 241.7 billion in 2021. The future dynamics of the market is evaluated similarly by consulting firms, with reports indicating a compound annual growth rate of more than 9% from 2022 to 2030, which means an increase of over 100% by 2030 (Grand View Research, 2022). Outsourcing companies are faced with changes in business models in response to the new competitive and regulatory conditions. While physical location has become less important, businesses and organizations have developed and adopted more diverse and flexible work practices. This paper analyzes the impact of the COVID-19 pandemic on the internal training activity of one of the ten largest outsourcing companies in the world. This company has over 230 subsidiaries and employs around 250,000 people around the world. In 2021 the company's turnover was around $ 10 billion. (Orbis, 2022). The focus of this research paper is one of the largest global players in the outsourcing market. As such, the findings of this study can be extrapolated to a larger scale. This paper is structured in four sections. The first section is a review of the literature. The second outlines the objectives and the methodology. Section three includes a discussion of the results; and the final section presents the conclusions. The research carried out in this study demonstrates that the transition from onsite to online training has led to an increase in the number and stability of training programs; an increase in the number of beneficiaries of training programs; and a reduction in the company's carbon footprint.

2. Literature review

The recent pandemic prompted a shift from conventional work carried out in offices to the adoption of WFH practices. While a significant number of studies consider the impact of WFH on companies and people, few refer to training programs for employees. With virtually no research conducted on the impact of the transition from onsite to online training in large companies, our study aims to understand the effects of the increase in the proportion of WFH practices. The virtual translation of work in WFH has resulted in a range of benefits for employees, especially those working in companies that operate globally. Some of the top benefits listed by employees working in such companies include, but are not limited to, the

disappearance of local barriers, better access to a wider range of training programs, and more flexible working arrangements. WFH is a field that has been researched from the 1970s but only 50 years later, in 2020, we were forced to test it in full. Nilles (1975) shows in his work that technological development determines the creation of an intra-organizational communication network and determines significant human and workforce changes. Kohl, Newman and Tomey (1975) demonstrate that the teleconference system is an alternative to face-to-face meetings and can lead to the development of rural areas by decentralization of employment. For employers, the benefits of WFH are motivated by cost reduction, particularly in relation to building and office rental and maintenance. The prospect of more employees using teleworking (at least part of the time) may decrease the reliance on rented space. According to Dalton and Groen (2022) more than 50% of organizations increased telework in US in the period July 2020 to October 2020 in the following sectors – education, finance and insurance, information and management of companies. The same authors found that the increase in telework is associated with the reduction of the work surface and with relocation. The authors argue that the proportion of telework depends on the industry and the size of the company; and it is higher in organizations offering higher salaries, compared to organizations that offer low salaries. A report published by the International Labor Organization (2021) found that telework can reduce companies' costs and may increase productivity. Chow et al. (2022) reach similar conclusions in a study based on a survey of 143 participants. Barrero, Bloom, and Davis (2022) have conducted a Survey of Working Arrangements and Attitudes to determine whether and why WFH is stick in the US. The authors found that the proportion of WFH will remain above the pre-pandemic level and will lead to a reduction of employees' expenditure on transport, shopping and personal services. The authors also determined “that higher levels of WFH will boost productivity by about 4.8 percent”. A report by Statistics Canada (2022) shows an increase in productivity for approximately 32% of WFH employees, while for 58% of the employees WFH it remained at least at the same level as before the pandemic. The study published by Smite et al. (2022), conducted on the example of an international software company, also identifies a slight increase in productivity during the WFH period. Angelici and Profeta (2020) conducted a survey at a large Italian company and found that giving employees flexibility over work preferences raises productivity. Sostero et al (2020) identified that remote working may also encourage a related cost saving in reduced work travel, due to the fact that some events, meetings and staff training sessions were conducted online. While internal departments in various companies have undergone changes, in this article we focus on the changes that occurred at the level of the learning and development (L&D) departments and on the impact of the changes on the company and employees related to cost and productivity.

All stakeholders are attentive to identify the costs and benefits of adapting training and skills development to an online or hybrid system. The responsibility of L&D has always been to support organizations to overcome periods of uncertainty and crisis. It is difficult to collect L&D data, particularly in the absence of a dedicated indicator that measures the impact of L&D on productivity. Company leaders, when it comes to L&D, tend to invest minimally, but the expectations are to create the greatest possible efficiency. This pressure given by the desire to keep L&D expenditure low while achieving a strong impact is felt by L&D departments that must deliver trainings to help employees adapt to a changing

organization and business environment. Business owners, leadership strategists and learning beneficiaries have consistently advocated for learning interventions in the classroom before the virtual shift prompted by the pandemic. Business owners argue that training and upskilling, especially soft skills, should be limited to the classroom, with the conviction that just the face-to-face interaction can drive the behavioral shift and mindset change.

The present paper and research conducted throughout European countries, has revealed another tested, a genuine practice of the real life and surprising reality. Several studies in the field of personal and professional growth, have added to the construct of the presented paper. Various learning reports carried out during and post pandemic crisis show that the impact of online learning speaks volumes on various measures and factors. Baturay (2015) for example argued the importance of learning platforms in March 2015. The increasing demand of MOOCs (Massive Open Online Courses) as the "distance education" solution, has become the only way of education. At the same time, Gartner (2020), brings the focus of the research on the investment aspects and sets the visual undisputed evidence of the increasing budget allocation towards platforms and learning opportunities and options. The 2021 Training Industry Report for US companies states that training expenditure per learner decreased for large companies by 53,2% in 2021 compared with 2019, while the hours of training per employee in 2021 increased by 78%. Overall, on average, companies spent US $ 1071 per learner per year and the value decreased by approximately 4% compared to 2020.

3. Case Study Methodology

The learning experience can be evaluated and analyzed through various lenses. In the current research paper, the research methodology focuses on the actual practices and delivery models, which have an immediate impact in terms of cost, investments, participants and environment. The context of the research originates in classroom practices, as opposed to the online delivery models of a developmental intervention in the service industry. The outsourcing industry has a particular business design, as it relies greatly on upskilling and remaining relevant to the workforce. Hence the relationship is directly linked to the knowledge of the human capital. One such global company with offices in Europe, mainly concentrated in Romania and Poland delivering monthly training programs based on the business needs and company policy, has been evaluating the changes of the training practices from before the pandemic (2019) and during and after the pandemic (2020 and 2021). The offering of programs includes a large variety of training programs, such as: Induction or Onboarding for new employees, Communication, Time Management, various custom-made leadership program, Excel, any type of ad hoc training required by the business needs and employees.

The data collected for the purpose of this study backdates from the fiscal year 2019, just before the pandemic and it is compared with data over the following two years. In the discussion below, there is a detailed representation of the data gathering, categories identified to be in scope for a potential impact, due to altered practices, because of the Covid

"new normal". Hence, all data is as per the monthly records of the training function that services Europe operations in a multinational company of the service industries. The same data, same delivery has been reported as training facilitation before the pandemic, as classroom development courses, as compared to the fully online delivery models during and post pandemic (data reported during 2020 and 2021 in the same records and targeted audience, as during 2019). The 2019 data is mostly relevant for the major locations of delivery with classroom facilitation (Romania and Poland, multiple locations) considering the face-to-face training facilitation requirements of the times in 2019. In addition, the training team location was also in the same two countries, primarily, hence focus on delivery and audience was targeted basis proximity, during 2019. Immediately post Covid, the entire model has shifted to a fully integrated 100% online delivery model.

The manpower and other physical resources during 2019 were linked to the team members on the location and required at times that a senior team member or trainer to travel for leadership classes or other niche topics to a different location. This generated an additional investment in time and travel costs; and the added cost of printed materials for training session, as well as coffee, training packs (kits), and other consumables.

The number of training programs offered in Romania and Poland on a monthly basis was a predefined sets of activities before COVID-19, there were a lot of practices and factors like time and money invested into different aspects of training. Under those circumstances, face-to-face training was to be the normal way of working.

Just before the company needed to reinvent itself in the world of virtual interaction, employees were used to face-to-face interaction. The same situation drove the research and current study, facing a reality and defining the problem statement before and after the pandemic. The actual question and discussion arise from the question and curiosity of how and where, and to which extend, we can measure the impact of the pandemic. Hence, current study elaborated and formulated a timely and increasingly interesting topic what has changed as a consequence of the pandemic and of the shift from onsite to online / virtual training.

The study has zoomed into the common, highly debated practice of shaping talent and upskilling people. Training used to be an interesting element of an organization; however, some interventions were considered only suitable in the classroom delivery model. Before WFH, or what we now see and understand as the "new normal", often referred to as WFH or WFX (work from anywhere), which was training delivery as a must in the form of face-to-face in classroom delivery models. This had its own costs for the company and limitations in terms of number of training sessions delivered in a month, and the number of people joining to be able to create impact on coverage (classroom capacity and availability of proper training rooms). Multiple factors played a key role in a high training cost of the classroom, which was the classic model of delivery. Face-to-face training involved expenditure that included onboarding and induction costs, consumables and travel costs. Addressing the challenges, the proposed solution and measures were not even close to being negotiable before the forced lockdown measures. However, during lockdown periods, some of the organizations that had a steady structure dedicated teams and a self-regulating mechanism of autonomy shifted training programs (and future planned ones) online. This

led to completely replacing any need for classroom style training delivery. Such a radical shift eliminated the costs associated with classroom delivery scenario.

Before COVID-19 the practices were a lot focused on classroom delivery that had a great impact in terms of costs and financials. The time and money invested into different aspects of training that at that time appeared to be the normal way of working disappeared during pandemic. In addition, protocol costs have been cut off as costs, yet the overall experience has become of a better satisfaction in terms of employee engagement and experience. With the WFH or work from anywhere movement and the online training, there was a major shift and practices have changed and all that generated a significant saving in terms of financials.

The training team of a service provider organization supports and services multiple European countries offering monthly training sessions and programs based on the needs and policies of each company. Training programs covers a wide variety of content including onboarding, the first day set of classes mandatory for the orientation of any new employee in the first week from the hiring date; improving communication; developing or refining leadership for first time managers and any type of leadership program; Excel training; designing a presentation from a core design perspective, or any type of ad hoc training needed in business operations.

The company internal data under research and further analysis was collated form the below categories:

- Onboarding Kit Cost – any material linked to welcoming packages (mugs, pens, etc.).
- Romania and Poland Protocol Cost – any expenditure linked to the hospitality element of delivering a classroom training session (drinks, food, etc.).
- Travel and Other Costs – where travel was needed as the training serviced multiple delivery locations throughout Europe, or within the same country.

The above costs were related other elements incorporated in the research including number of participants, training hours invested, and number of overall sessions. Such data has been compared and contrasted with the pre-pandemic data.

Taking into consideration all the previous findings, in the following lines we will form 3 hypotheses that are tested for a large international multinational company:

H1. Shifting from onsite to online training reduces the cost of training programs.
H2. The transition from onsite to online training increases the number of training programs offered and the number of people who benefit from these programs.
H3. Moving from onsite to online training reduces the carbon footprint of companies in the outsourcing industry.

4. Results and Discussions

The data gathered has been evaluated from a costs perspective by collecting expenditure related to food, welcome kits for new empoyees and other reports for the delivered sessions during 2019, 2020 and 2020, where 2019 was a full classroom delivery model, and the next two years demarked the virtual practices. The data collected aimed to

compare the costs associated with training delivery before the pandemic (2019) and during / after the pandemic (2020 and 2021). Also it aimed to compare the classroom model with the online / virtual model.

The main categories of costs are listed below.

Protocol costs

Historical data shows that for classroom training would normally include fruits, juice, coffee, snacks, biscuits, chocolate, diplomas issued to participants at the end of the training, envelopes, pens, flipchart, toner, printing paper among other inclusions or materials. During 2019 the average protocol cost for an employee was approximately €17.66 and this cost was considered for the 3755 employees trained during 2021. On average, the protocol cost would have been about € 6.4 k per month in 2021.

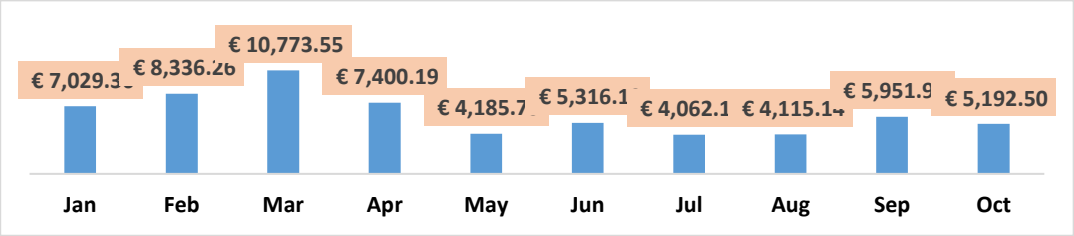


Figure 1. Average Expenses on Protocol for 2021. Source: Authors' own research

Onboarding/ Induction kit costs:

According to the administration office internal data, the cost for an Induction Kit per employee is at € 10.57. Each kit would include: mugs, calendars, external batteries for phones, personalized pens, notebooks and bags. Between April 2021 and October 2021 a total of 441 employees could have received a induction kit (if Work from Office was still in place), hence an estimated cost savings with Induction Kit based on the number of eligible employees, would have resulted into € 4,662.90 cost savings. On average welcome kits expenses would have been around € 518.10 per month.

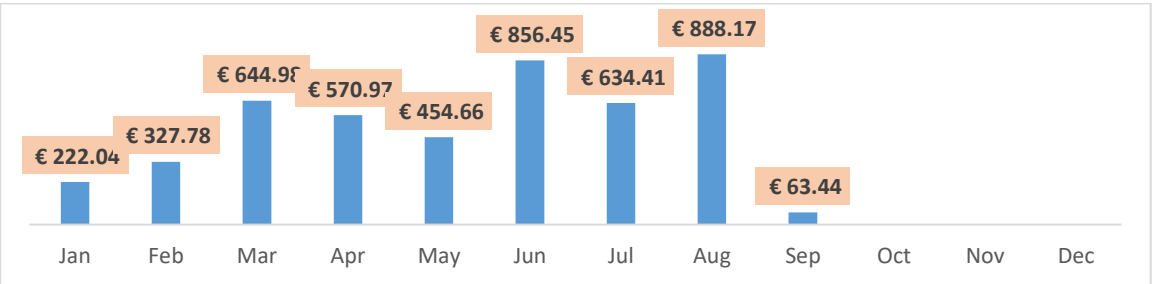


Figure 2. Average Expenses in Induction Kit for 2021. Source: Authors' own research

The findings outlined above show a remakable cost savings by simply eliminating expenditure on protocols and welcome kits. Similarly, the travel costs were eliminated, as shown in the discussion below.

Travel costs

Before virtual training, in the case of Poland, the trainer would conduct training sessions that required actual on site (classroom) presence. With multiple offices across Poland, the trainer was generating additional costs for the company as a result of the travels between locations. For one location the additional cost was at approximately € 260.65 per session and for the second delivery location it was at approximately € 188.91 with an overall average cost at about € 191.57 per trip. Between April 2021 and October 2021 a total of 13 training sessions would have required travel with an estimated cost of € 1,915.70, considering historical data of similar travel. On average travel expenses would have been approximately € 478.93 for trainer travel/ month.

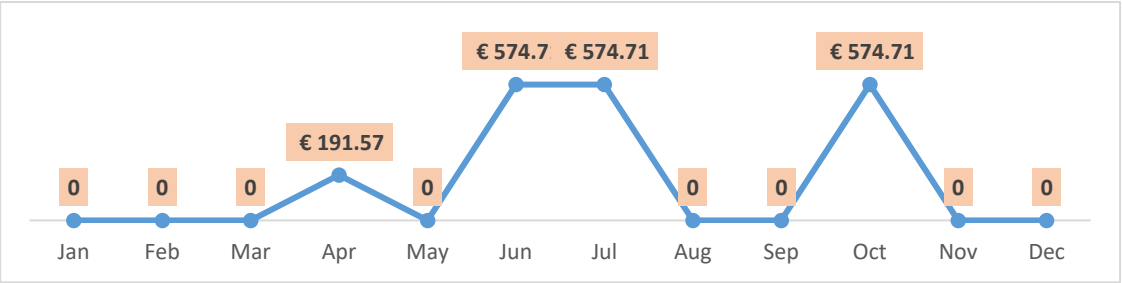


Figure 3. Average Expenses for Travel in 2021. Source: Authors' own research

To further shape the data into a comprehensive research, the table below presents the summary of all costs as per expenses from various categories identified as generating financial impact, during the virtual delivery:

- Monthly Employees Trained, Number of trainings done and Total Number of Hours;
- Induction Kit Cost Estimation per month (based on number of trained employees that are eligible);
- Protocol Cost Estimation per month (based on number of employees that would receive a classroom training);
- Travel Cost Estimation for Poland per month (based on location of training and subsequent costs).

Table 1. The summary of costs per month

2021	Total Trainings Done	Estimation of Induction Kit Costs (euro)	Estimation of Protocol Cost (euro)	Estimation of Travel & Other Costs (euro)	Total Cost
Jan	42	222.04	7,029.30		7,251.34
Feb	43	327.78	8,336.26		8,664.03

Mar	43	644.98	10,773.55		11,418.53
Apr	42	570.97	7,400.19	191.57	8,162.73
May	35	454.66	4,185.79		4,640.45
Jun	46	856.45	5,316.13	574.71	6,747.29
Jul	44	634.41	4,062.16	574.71	5,271.28
Aug	46	888.17	4,115.14		5,003.31
Sep	35	63.44	5,951.95		6,015.39
Oct	39		5,192.50	574.71	5,767.21
Nov					-
Dec					-
Total	415	4,662.90	62,362.97	1,915.70	68,941.57

Source: Authors' own research

Based on a conscious effort and adaptive behavior, all offering and training sessions have been adapted to virtual delivery following lockdown. This is due to the fact that new ways of working eliminated the need to classroom or face-to-face programs. To be able to evaluate such an impact of change, the most relevant data observed that brough a set of insights on financial gains, or cost savings were the actual sessions, the hours of trainings and the number of people attending those sessions. Also, the location and geographical reach expanded from Romania and Poland, mainly to 18 different European countries where the company had employees servicing multiple customers.

Table 2. Training activities, 2019 - 2021

Year	Training sessions	Hours of Trainings	Number of Participants
2019	334	1618	3406
2020	321	1286	2866
2021	415	1667	3755

Source: Authors' own research

Cosnidering the data collected in terms of session and people trained, we have observed an increase of 24.25% in the training sessions delivered in 2021 compared to 2019. For the same period of time, the number of participants increased by 10.24%. Further investigation reveals the estimation of costs for 2020 and 2021 is done based on the actual data and costs incurred during the office working model of 2019.

Table 3. Estimated costs of training activities

Cost Category	2019	2020	2021
Estimation of Induction Kit Costs (euro)	7,137.09	3,478.67	4,662.90
Estimation of Protocol Cost (euro)	57,594.35	48,233.72	62,362.97
Estimation of Travel & Other Costs (euro)	8,812.22	3,256.69	1,915.70

Relative Changes of Induction Kit taking 2019 as base year (%)	-	-51.25	-34.7
Relative Changes Protocol Cost taking 2019 as base year (%)	-	-16.25	+8.2
Relative Changes Travel & Other Costs taking 2019 as base year (%)	-	-63	-78.26

Source: Authors' own research

On such data, the cost avoidance clearly shows that the estimated annual cost savings outcomes at € 68,941.57 (2021) compared to € 73,543.66 (2019). Estimation of Travel and Other Costs has the largest decrease of 78.26% in 2021 compared to 2019 and this it is an important observation not only in terms of money but in terms of impact of traveling less could have on CO2 emissions and traffic. The estimated costs in the table above underline the cost reduction brought by online training and the added value that is reflected in the increase in efficiency (more training sessions at a lower cost). In a study analysing employer plans and the relative productivity of WFH, Barrero, Bloom and Davis (2021) suggest a 4.6% productivity boost in the post-pandemic economy due to re-optimized working arrangements. The authors find that the main source of this productivity boost is the savings in commute time prompted by WFH.

In general, the training programs have improved, as there were more training sessions conducted, more hours of training completed, more countries took benefit of the training sessions, more people got upskilled. We identified statistically significant differences between 2019 / 2020 and 2021. Testing shows a mean increase from 28 to 42. Improvement in standard deviation also shows more stability in terms of monthly average delivered trainings in 2021 compared to 2019 and 2020.

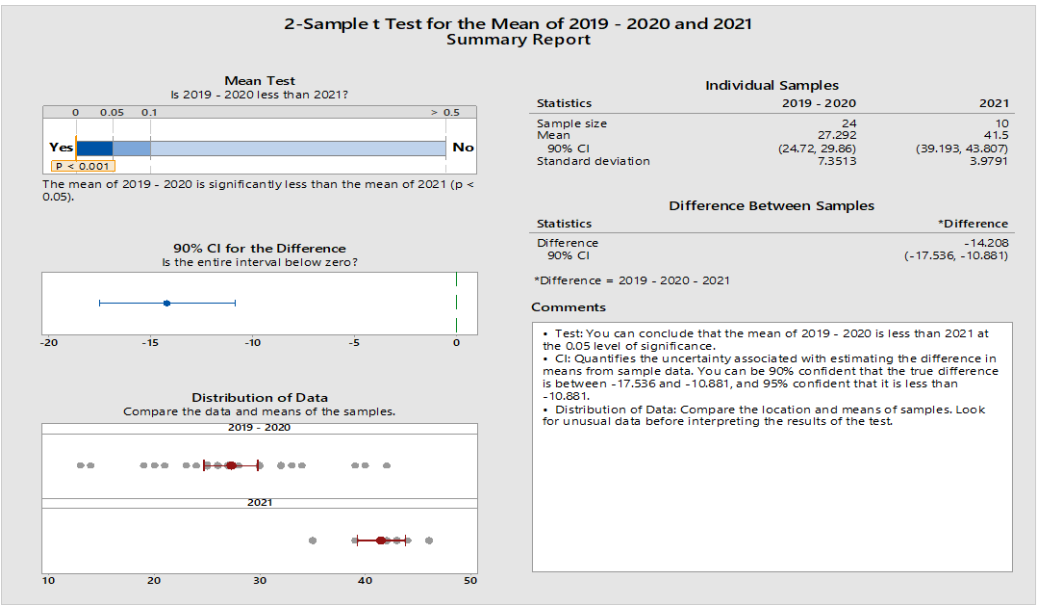


Figure 4. The stability of training, 2019 – 2021. Source: Authors' own research

Due to climate change, in EU circular economy policies and new business and work organization models are related to climate action and have labor market implications. New forms of work organization allowing for more flexible telework can reduce the need for commuting and printing and thus have an impact on traffic and CO2 emissions. As an additional benefit of the changes proposed and implemented in the practices of an outsourcing, service provider global organization, at a European scale, it can also be evaluated as an ECO friendly approach. With the company benefits of cost avoidance/waste elimination and better employee experience, this approach is also in line with global effort to combat Global Warming, since virtual will no longer result in paper / plastic usage.

Looking at the carbon frootprint reduction, as a novelty in training impact evaluation, the rule of thumb for CO2 and Printing shows that:

- 1 kg of paper results in approximately 1 kg of CO2 during its production;
- Office paper is usually 80g/m², which means 16 pages of paper per square meter;
- Dividing this 80g by the 16 sheets, we come to a figure of just 5g of CO2 per page;
- Per kilowatt hour, 474g CO2, or 7.9g of CO2 per minute is produced;
- A laser printer that prints 10 pages per minute with 1.3KW causes 7.9g CO2 x 1.3KW = 10.27g CO2;
- This means that a page printed with a laser printer produces approximately 1g of CO2.

As a result, the CO2 emissions per printed page is 6g. In light of these calculations, we ask the following question: How much CO2 is it produced by printing for training purposes? A summary of the data in this research shows:

2019

- 3406 participants
- 23937 estimated pages printed
- 144 Kg of CO2 - generated

2020

- 2866 participants
- 20606 estimated pages would have been printed
- 124 Kg of CO2 would have been generated

2021

- 3755 participants
- 26688 estimated pages would have been printed
- 160 Kg of CO2 would have been generated

By removing the need to print, in 2021 there was a reduction of the CO2 footprint of each participant with around 0.0084% per month. There are few studies centered on calculations on the change in emissions derived from decreased commuting due to WFH (Tenailleau, 2021; Cerqueira et al., 2020). These nonetheless tended to recognise the need for further and more comprehensive calculations to account for the negative climate effects of WFH.

5. Conclusions

Reiterating the benefits of moving into a virtual training practice eliminated some printing, food and travel costs that produce financial benefits. However, other benefits include the availability of the employees and training participants to attend various upskilling sessions, an increase in the number of sessions, as the availability, logistics and demand achieved more flexibility in the online delivery model.

The period following Covid-19 has provided employers with an unplanned organisational learning opportunity in working remote provision from the perspective of reducing costs, human resources, productivity, organizational culture and ICT infrastructure and software. Some employers may have learnt that broader access to remote working was technically possible with lower costs and limited negative impacts on performance.

The willingness of people to attend training programs increased, as well as the geographical spread across the main locations included in this research, having participants attending virtual training in 18 different countries.

From both sides, employee and employer, online training brings a range of benefits. For employees, online training helped them achieve faster access to resources that were limited before Covid; from the employer's perspective, online training brought benefits related to the increase of training sessions with a lower cost per hour and the opportunity to train more employees at lower costs.

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