Write a research paper on Telecommuting and ICTs in the Home.

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Telecommuting and ICTs in the Home.

1. Abstract

Telework and ICT-based home work (T/ICTs) is any type of work arrangement where workers are working remotely, away from the premises of an employer or a fixed location, using digital technologies such as networks, laptops, mobile phones and the Internet. It provides unparalleled flexibility in where and when staff work. In the context of developments in the world of work and the economy, T/ICTs has emerged, including digitalization, labor market flexibility, increased women's labor market participation and global competition. This paper has highlighted the background of Telecommuting and ICTs in the home, it looks into the Literature reviews on this area of knowledge, the methodology used is Literature analysis and evaluation, it gives results and discussions. Conclusions and recommendations on what could be done to improve on Telecommuting and ICTs at home.

2. Background

i)   Introduction

Information and communication technologies (ICT) have had, and continue to have, a profound effect on the manner in which organizations and their workers organize, conduct and perform their jobs. In particular, telecommuting allows workers to work wherever and anytime. Such innovations do not merely expand earlier temporal and spatial work boundaries; they fundamentally alter the very essence of the work itself (Boell et al., 2013). Latest information and communication technologies (latest ICTs), such as smartphones and tablet computers, have revolutionized the 21st century's day-to-day work and life. On the one hand, they allow continuous communication with friends and family, as well as with colleagues and supervisors at work; on the other hand, paid work may increasingly interfere with periods and physical spaces that are usually reserved for personal life. The detachment of the work from conventional office spaces is crucial to this development. Office research in the 21st century is mostly enabled by internet connectivity and can therefore be carried out from anywhere and at any time. This latest work independence from location radically changes the role that technology plays in the work climate. Scholars are becoming increasingly concerned with the benefits and drawbacks of new ICTs in terms of working time, employee relationships, person and organizational efficiency, occupational safety and health, and work-life balance (Messenger & Geneva, 2017).

Visionaries such as Jack Nilles and Allan Toffler projected in the 1970s and 1980s that the job of the future will be moved to or near employee homes with the help of new technology so-called

"Telecommuting" or "Telework." To better understand the impact of new ICTs on the world of work, it is therefore important to create a conceptual connection between Telework/ Telecommuting's early days and such arrangements nowadays (Haddon & Silverstone, 1992). In this sense, technological developments are the engine of transformation, and they have fostered Telework evolution in three distinct stages or "generations". First, personal computers and fixed telephones replaced long hours of commuting between home and school; this was Telework's first generation, the home office. Second, laptop computers and cell phones allowed "on the go" wireless, portable work from locations other than home or workplace (so-called "third spaces"), followed by a increasingly increasing dispersion of the Internet and the World Wide Web; this was the beginning of mobile work, the Mobile Workplace, which is the Second Generation of Telework. Lastly, electronic connections via radio links and transistor shrinking triggered the creation of new ICTs (smartphones, tablet computers, for instance). New ICTs have allowed the mobile, interactive connection of staff to the "office" at any time from almost anywhere; this is the third generation of telework, the interactive workplace (Messenger & Geneva, 2017). Analyzing technical developments and how they influenced telework evolution over these years has opened up on the issue of telecommuting.

This paper looks at the developments in the field of work by Telecommuting and the ICTs at home. T / ICT at home can be described as using ICTs – such as smartphones, tablets, laptops and desktop computers outside the ordinary office space based on the employer's premises.

ii)   Problem statement

Far-reaching developments in ICTs make possible the opportunity for people nowadays to work wherever and anywhere while staying linked to and closely engaging with colleagues either at the main place of work of their employer or some other venue. Location-today 's independent work has been made much simpler and more available by technological resources such as business groupware, virtual private networks, broadband Internet connectivity, phone calls , video conferencing, virtual call center and Voice over Internet Protocol (VoIP), cloud computing and Wi-Fi, as well as powerful digital devices that have become more and more common (ILO, 2016). TICTM is increasingly covered in collective agreements at sectoral and company levels. However, less formal implementation of this work arrangement is still more prevalent.

The COVID-19 pandemic has resulted to closures of workplaces and organization have been directed by governments to have minimal force work in their offices for only essential services and that all other employees are supposed to work at home. This has resulted to many employees loosing their wages and others being declared redundant in many parts of the globe. Many Countries in the developing world have minimal internet connections and penetrations in the homes in rural areas and in the city's informal settlements where majority of employees live. Even though there have been rapid developments today on ICTs globally, working at home hasn't been embraced in the developing world (ILO, 2016).

iii)   Significance of the study

This study will be a contribution to the current literature on Telecommuting and ICTs at home, it will highlight the concept, the benefits, challenges and possible solutions to the challenges using the modern ICTs.

iv)   Study objectives.

1. To understand the concept of Telecommuting and their current ICTs usage.
2. To Look at the benefits of Telecommuting in the wake of modern ICTs development
3. To find out the key challenges faced by the Telecommuting stakeholders and to isolate those that can be solved using ICTs.

3 Literature review

3.1 Telecommuting and ICT use at home Concept

Telecommuting, also known as telework or remote work, is a flexible work arrangement that enables workers to carry out their work in various locations, usually with the aid of electronic communications devices, rather than in a single, central worksite. Telecommuting may be either full-time or part-time, with the latter increasing in recent years. According to the 2015 Gallup 's Annual Job and Education Survey, 37 percent of U.S. employees say they've been telecommuting, marginally higher than 30 percent last decade but four times higher than the 9 percent that was found in 1995. The poll also found that two days a month, an average worker telecommutes, and 46 percent of telecommuters do so during working day (Leung & Zhang, 2017).

Key to the practice of telecommuting is the use of ICT, through which telecommuters communicate with their central office and other colleagues. In particular, the use of ICT to work

at home has become indispensable for telecommuters as home is the primary place where they perform their tasks, compared to remote offices and telework centers. In different ways telecommuting has its merits. At the person level, telework saves children on travel time and the cost of transportation, clothes, food, and day-care. When working at home, working mothers will fulfill their dual function. Telework reduces overhead costs on the corporate level, such as parking, office rooms, and materials. At the community level, telework will minimize traffic in commuters and, in effect, save money, reduce air pollution, reduce wear in transport networks, and reduce environmental costs (Work, 2015).

There are mixed research findings which may be due to the fact that ICT usage may not have a direct impact on the work and family life of individuals, but exert effects by altering the nature of tasks and the performance of duties in different fields. Previous studies showed that role stress, caused by role overload and role conflict, was the most important cause of conflict and technostress between family and work. Due to the overwhelming workload and disruption of personal lives brought on by ICTs, individuals find it difficult to reconcile their work and family responsibilities, which can lead to career burnout, marital dissolution, physical and mental health issues and life dissatisfaction. The theory of work / family boundaries examines how people handle the job and the family domains and border management between them, to strike a balance (Work, 2015).

The hypothesis has it that the boundaries between the worlds of work and family are their permeability and flexibility characterized. Permeability refers to the degree to which the working-family boundary enables the psychological or behavioral elements of one environment to enter into another. Flexibility indicates to what extent a domain can contract or expand to meet the demands of another domain. In addition, flexibility includes the malevolence of the boundary between two or more roles (e.g., the willingness of a roles domain such as professor to expand or contract to meet the demand of another roles domain such as parent, and vice versa). When the boundary between work and family is flexible, individuals seem to have more flexibility in choosing their working hours and locations. We are combined when the boundaries are versatile and permeable, resulting in the convergence of work life and family life (Leung & Zhang, 2017).

3.2 Benefits of Telecommuting in the wake of modern ICTs development

As Vargas-Llave et al., (2020) assert, telecommuting can, of course, represent a resource or a constraint, depending on the degree of workers' autonomy and the specific context of management.

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Working from home, for example, is sometimes presented as a possible solution to work-family balance issues or, on the contrary, as a work-life balance problem due to localization challenges as well as blurring boundaries between working and non-working time. While some research indicates that telework may be an alternative for work-family balance, some authors also indicate that there are risks of a greater conflict between work-family or longer working hours that impact family life. Many teleworkers see this mode of work as giving them more time to be with the family in the morning and in the evening, be available for family duties, prepare children for school or day care in the morning and welcome them when they return. Many appreciate the flexibility of working hours as a positive contribution to work-family balance and many indicate that they can integrate certain domestic tasks into the workday, thus freeing the evening or the weekend (Vargas-Llave et al., 2020).

Telecommuting and ICTs has benefits both for employers and for employees. It allows for the adaptation of time and place of work to the needs of both employers and workers, meaning that it is also capable of improving productivity and work-life balance. However, some possible disadvantages, such as constant availability and long working hours, can blur the boundaries between working and private life. Furthermore, whether the work carried out outside the premises of the company is a replacement or a complement to in-house work tends to affect whether employees believe that T/ICTs increases or diminishes their work-life balance. Research on T/ICTs effect so far is vague and at times conflicting (Tremblay & Thomsin, 2012).

Furthermore, many writers refer to telework as a way to be more efficient. Via less interruptions and distractions, it would improve productivity and promote better focus. That increased productivity, however, remains hard to measure. Telework is also often seen as a solution for dealing with work overload. So they conclude that teleworking is not always a workers' voluntary choice to improve their working conditions. It can also reflect stressful working conditions or work overload (Tremblay & Thomsin, 2012).

3.3 Key challenges faced by the Telecommuting stakeholders

The lack of contact and input from the colleagues comes first among the negative aspects of telework, followed by isolation of the challenge of restricting one's working hours. In fact, fewer men than women believe that working alone without colleagues scores first among the telework-related drawbacks; also, people who work full-time at home are particularly sensitive to this issue

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indicate that feeling isolated increases with age. Nonetheless, working more, or too much, would seem to be a concern for executives and professionals (Messenger & Geneva, 2017).

While it seems that T / ICTs employment will help to promote a better work-life balance for employees, a large portion of this job arrangement tends to have a supplementary character – that is, it contributes to employment outside normal / contractual working hours, and also seems to be unpaid. This arrangement therefore does not always reduce work – family conflict. The findings, on the contrary, show that a high level of utilization of ICTs outside the employer's premises can jeopardize work-life balance. In fact, there is a strong risk that working time would impinge on non-working time in all forms of T / ICTs work. It is a result of workers usually doing T/ICTs jobs for longer working days and weeks, but it also appears to be linked to a lack of 'boundary management.' Thus, it seems that the higher working time flexibility of T / ICTs employees will only lead to better work-life balance for daily home-based teleworkers and those who only rarely operate outside the employer's premises; it does not seem to have this impact for those who do high-intensity mobile T / ICTs jobs (van der Lippe & Lippényi, 2020).

There is also important gender-based differences in these effects: women tend to work shorter hours in T / ICTs work, and when they do T / ICTs work they seem to get much better work – life balance results than men. In this regard, women tend to use more regular home-based telework (instead of working elsewhere outside the 'office'), and in most contexts, they seem to do so primarily to balance work and family-related work. Furthermore, it is worth noting that managers generally have different motives for performing their own T / ICTs work, and they are more likely to encounter difficulties with regard to work-life balance (ILO, 2016).

Employees working at T / ICTs also appear to be exposed to health and wellbeing risks. Although a higher proportion of workers among those doing T / ICT research report positive effects from this form of work on their health than other employees, there is also a higher percentage of workers reporting negative impacts from such work on their health. In addition to particular job characteristics in the different professions, the health and safety risks of these workers are correlated with ergonomic issues that occur when working outside the premises of the employer. More specifically, T / ICTs work, particularly high mobile T / ICTs work, is associated with psychosocial risk factors related to work intensity, supplementary working hours and longer total working hours, which tend to have a negative impact on stress, sleeping problems and perceived

health effects of work. Colleagues' autonomy and support may play a role in moderating these effects, but the findings suggest that some of the negative consequences will not be completely prevented by these factors themselves. Reducing the work intensity for high mobile employees and reducing the additional hours for home-based teleworkers could have a greater effect (Boell et al., 2013).

4 Results and Discussions

While most studies conclude that telecommuting has a positive impact on the employer, employee and environment, we note wide variation in almost all other aspects. Some studies offered comprehensive numerical analyzes while others offered simple qualitative analyses. Some research used complicated simulations of statistics, while others focused on simple algebraic calculations. Studies have ranged considerably in terms of geographical distance, conclusions, and timeframes.

Most of the studies included in our study are macro-level analyses, taking into account the combined ability of multiple ICT approaches to using the approaches in enhancing telecommuting. Many of these studies, telecommuting (or variants such as flex iWork and decentralized business) is implemented as an individual ICT solution. Although different methodologies made comparison between studies difficult, our preliminary study findings were still useful as a means of guiding the approach and validating assumptions of this paper.

It can be assumed from the literature review and analysis has indicated that telework is a good option for work-family balancing, we were interested in seeing whether gender had an influence on participation in telework and mobile work but was indicated women are good at balancing office work and home work than Men who may overwork or underwork. It clearly showed that a smaller percentage of women participate in mobile working; in the organization, male workers outnumber female workers, but even taking this into account, the percentage of men participating in mobile working is higher than that of women doing so.

In the developing world there is a challenge of internet connections in the informal settlements and rural areas which are not wholly connected to the internet therefore making telecommuting impossible thus rendering employees in these areas redundant or jobless especially during this pandemic period of Corona Virus.

5 Conclusion

One idea closely linked to organizational digitization and especially to the use of ICT is that of versatility. ICT has facilitated new ways of organizing work by allowing more flexibility for workers as to when and where they can work. These forms of work organization rely less on regular rhythms, rather than more flexibly allocating tasks. This shift is accompanied by a more general, project-based, and fragmented trend towards work (Vargas-Llave et al., 2020).

It can also be concluded that telecommuting and ICTs allow workers to adapt work and time to their individual needs, it offers a great deal of potential to improve work-life balance. It allows staff more flexibility, for example, to properly manage their care duties or to deal with personal problems that are difficult to deal with outside core working hours due to unique opening times.

The cross-national perspective these data provide shows that workers in the regular home-based Telecommuting category report a slightly better fit between their working hours and their family or social commitments than workers who always work at the premises of their employer. That finding is confirmed by multivariate analysis. At the other hand, findings are less favorable for the highly mobile community on all survey metrics measuring work-life balance, including the connection between their working hours and their family or social commitments.

6 Recommendation.

Many Telecommuting workers do not enjoy all the advantages of this employment arrangement; they have non-standard jobs, poor wages, restricted access to training and relatively high job insecurity. General legislation dealing with minimum working-condition requirements, such as the Straight forward and Consistent Working Conditions Directive, would include this category of staff.

The Governments of developing countries through partnerships with the private sector can enhance internet connections in the informal and rural areas to support telecommuting in their countries and also create more jobs for the unemployed youth who are technocrats in many spheres of knowledge.

References

Boell, S. K., Cecez-Kecmanovic, D., Campbell, J., & Cheng, J. E. (2013). Advantages, challenges and contradictions of the transformative nature of telework: A review of the literature. *19th Americas Conference on Information Systems, AMCIS 2013 - Hyperconnected World: Anything, Anywhere, Anytime*, *5*, 3521–3530.

Haddon, L., & Silverstone, R. (1992). *Information and Communication Technologies in the Home: The Case of Teleworking by*. *October*, 1–18.

ILO. (2016). *Challenges and Opportunities of Teleworking for Workers and Employers in the ICTS and Financial Services Sectors Sectoral Policies Department*. http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_531111.pdf

Leung, L., & Zhang, R. (2017). Mapping ICT use at home and telecommuting practices: A perspective from work/family border theory. *Telematics and Informatics*, *34*(1), 385–396. https://doi.org/10.1016/j.tele.2016.06.001

Messenger, J. C., & Geneva, I. L. O. (2017). Working anytime, anywhere: The evolution of Telework and its effects on the world of work. *Iuslabor*, *0*(3), 11.

Tremblay, D. G., & Thomsin, L. (2012). Telework and mobile working: Analysis of its benefits and drawbacks. *International Journal of Work Innovation*, *1*(1), 100–113. https://doi.org/10.1504/IJWI.2012.047995

van der Lippe, T., & Lippényi, Z. (2020). Co-workers working from home and individual and team performance. In *New Technology, Work and Employment* (Vol. 35, Issue 1, pp. 60–79). https://doi.org/10.1111/ntwe.12153

Vargas-Llave, O., Mandl, I., Weber, T., & Wilkens, M. (2020). *Telework and ICT-based mobile work: Flexible working in the digital age*. https://doi.org/10.2806/70118

Work, A. (2015). *ICT Use at Home and Telecommuting Practices in Hong Kong*.