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**VIRTUAL WORK IN THE BULGARIAN ICT SECTOR:
WHAT IMPACT ON WORK-LIFE BALANCE?**

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Abstract

The article explores the role of virtual work in improving work-life balance (WLB) within the ICT sector in Bulgaria. In the context of inadequate public policies, the attitudes of those working in the ICT sector (employees and freelancers) are analysed along with the human resources management policies of companies. The research objectives were achieved through quantitative survey (web-based survey) and qualitative methods (interviews with managers, employees, freelancers). Three specific hypotheses were tested to investigate the relationships linking gender, duration of virtual work, and age of children (defined as factor variables) to parents' satisfaction with their WLB (resultant variable). The research findings reveal that: virtual work is practised mainly by individual choice, company policies are based on individual arrangements with employees rather than formalised policies, and those employees engaged in virtual work experiences report better satisfaction regarding their WLB. Recommendations for company policies have been formulated on the basis of the research findings.

Keywords

Work-life balance – Online labour platform – Virtual work – Freelance work – Bulgaria

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Introduction

The information and communication technologies (ICT) sector in Central and Eastern Europe has seen spectacular development over the last two decades; its potential for the overall economy and growth have been recognized by many observers. Building on the sector's previous development under socialist economies¹, ICT companies from this region began to integrate themselves in the global value chain (GVC) during the late 1990s and early 2000s. This is particularly the case for Bulgaria, where ICT has been the fastest growing economic sector for several years now, offering the highest monthly remuneration and engaging mainly young and highly educated specialists². In the context of increasing demand³ for additional ICT practitioners in the European Union (EU) is expected to reach 900,000 in 2020 – the sector in Bulgaria, despite offering attractive conditions, persistently experiences a deficit of qualified specialists. One of the possible reasons for the lack of qualified IT specialists is that women are poorly represented in the labour force in this sector. Further reasons⁴ can be attributed⁵ to the lack of (adequate) public and/or company policies for improving employees' work-life balance⁶. Work-life balance⁷ is a term used to describe the level of prioritisation between an individual's work and personal lives. While the reconciliation of one's professional life with personal commitments⁸ was long ago made a crucial part of European policies, Central and Eastern Europe and particularly Bulgaria are places where WLB has only recently been included in the public debate⁹. Although WLB covers several aspects of social life – such as income level, financial situation, job security, flexibility of work hours, and childcare or elderly care availability and accessibility – and while the range of relevant policy fields is exceptionally broad¹⁰, firm-level solutions are still crucial in Eastern European societies in the context of public policies' limited scope and resources.

¹ I. Tchalakov and P. Burton, "Project TACTICS (Telematics and Advanced Communications Industrial Comparative Study for Bulgaria, Romania and Macedonia. Final report prepared for The European Commission" (Sofia: LIK, 2001).

² Balgarska asotsiatsia na softuernite kompanii (BASKOM). Godishen doklad za sastoyanieto na softuernia sektor v Bulgaria: Barometar 2019 (Sofia: BASKOM, 2019), https://www.basscom.org/RapidASPEditor/MyUploadDocs/BASSCOM_Barometer_2019_BG.pdf (30.03.2020).

³ N. Genov, "The future of individualization in Europe: changing configurations in employment and governance", *European Journal of Futures Research* num 2 Vol : 46 (2014).

⁴ C. Mako; M. Illéssy; P. Csizmadia; V. Kirov and T. Galev, "Changes in Work from the Global Value Change Perspective. The Case of Transformation Economies: Bulgaria and Hungary", *Budapest Management Review (Vezetéstudomány): XLII. ÉVF* num 6 (2011).

⁵ R. Stoilova, "Impact of Gender on the Occupational Group of Software Producers in Bulgaria", *Sociological Problems: Special Issue* (2008).

⁶ Within the article, the terms "work-life balance" and "work-family balance" are used synonymously, although family is only part of the individual's personal life.

⁷ Eurofound definition, available at: <https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/work-life-balance>

⁸ R. Rapoport; L. Bailyn; J. K. Fletcher and B. H. Pruitt, *Beyond Work-Family Balance. Advancing Gender Equity and Workplace Performance* (London: Wiley, 2002).

⁹ S. Kovacheva and S. Spasova, "Bulgarie: La conciliation vie familiale-vie professionnelle à l'épreuve de la transition politique, économique et sociale et de la crise", *Chronique internationale de l'IRES* Numéro: special De la pluralité des relations emploi-famille à la variété des politiques de conciliation, num 152 (2015).

¹⁰ Eurofound. *Working time patterns for sustainable work* (Luxembourg: Publications Office of the European Union, 2017), <https://www.eurofound.europa.eu/publications/report/2017/working-time-patterns-for-sustainable-work> (30.03.2020).

Simultaneously, as shown in the literature¹¹, employer support for work-life balance in Central and Eastern Europe is quite scarce. Moreover, inadequate company policies for reconciling employees' work and private lives tend to disadvantage women of childbearing age¹².

With all this in mind, our objective is to investigate the extent to which new forms of work, such as virtual work, have spread and could contribute to better WLB. While the development of virtual work practices in Europe is nothing new, its scope and pace have drastically accelerated in recent years¹³. Two of the most used forms of virtual work¹⁴ are ICT mobile work¹⁵ and crowdsourcing, more popularly known under the term 'online platform work'¹⁶. Both represent forms of distant work mediated by new technologies. Our general hypothesis is that virtual work contributes to better WLB, especially among childbearing women who would prefer to work remotely, either through ICT mobile work or freelance work via online labour platforms¹⁷. In particular, we define three hypotheses in order to investigate the relationships between gender, duration of virtual work, and children's age (defined as factor variables) and parents' satisfaction with the WLB (resultant variable). Chi-squared analysis (χ^2) is carried out in order to explore these relationships. The two studied groups in the project, regular employees and freelancers, are considered separately and in comparison.

H 1) There is a statistically significant relationship between gender and satisfaction with WLB.

H 2) There is a statistically significant relationship between a child's age and the parent's satisfaction with their WLB.

¹¹ A.K. Abendroth and L. Den Dulk, "Support for the work-life balance in Europe: The impact of state, workplace and family support on work-life balance satisfaction", *Work, employment and society* Vol: 25 (2011): 234.

¹² G. Yordanova, "Global digital workplace as a potential for Bulgarian woman to achieve better work family balance", *Revista Inclusiones* num 6 (2019): 248.

¹³ P. Meil and V. Kirov, "Introduction: The Policy Implications of Virtual Work", in *Policy Implications of Virtual Work*, eds. P. Meil and V. Kirov (Basingstoke: Palgrave, 2017).

¹⁴ Here, virtual work is defined as different forms of technology-mediated work produced outside the office. We used this term for employees working under an employment contract (out of a company's office and from a distance/ telework, virtual, distant work).

¹⁵ Eurofound. *New forms of employment* (Luxembourg: Publications Office of the European Union, 2015), <https://www.eurofound.europa.eu/fr/publications/report/2015/working-conditions-labour-market/new-forms-of-employment> (31.03.2020).

¹⁶ P. Meil and V. Kirov, "Introduction: The Policy Implications..."

¹⁷ Platform work is a form of employment that uses an online platform to enable organisations or individuals to access other organisations or individuals to solve problems or to provide services in exchange for payment. The main characteristics of platform work are the following: paid work is organised through an online platform; three parties are involved, which are the online platform, the client, and the worker; the aim is to carry out specific tasks or solve specific problems; the work is outsourced or contracted out; jobs are broken down into tasks; and services are provided on demand. As the main traded good is labour rather than materials or capital, sales platforms (such as *eBay*) or platforms providing access to accommodation (such as *Airbnb*) or financial services fall outside this definition. Furthermore, non-commercial transactions like volunteering, networking, social media (such as *LinkedIn*), or any other form of unpaid transaction (such as *Couchsurfing*, which matches people looking for accommodation with people offering it free of charge) are not considered platform work. Accordingly, the research focuses on online platforms matching the supply of and demand for paid labour. Eurofound definition, available at: <https://www.eurofound.europa.eu/publications/report/2018/employment-and-working-conditions-of-selected-types-of-platform-work>.

H 3) There is a statistically significant relationship between the duration of distance work and satisfaction with WLB.

The article is organized as follows. After the introduction, the theoretical framework and methodology of the study are presented. The research findings are analysed in terms of virtual work practices by investigating the advantages and disadvantages from the perspective of employees or freelancers. Company policies targeting WLB are also discussed. The conclusion focuses on the main findings of the research and outlines recommendations for companies and employees in the examined sector.

Theoretical framework

In order to analyse the WLB in the ICT sector, we have mobilised two theoretical streams. The first is related to the specific arrangements of Bulgarian companies (and, broadly speaking, Eastern European companies) in relation to WLB. The second focuses on the study of virtual work, such as ICT mobile work or crowdsourcing, in the context of the digital transformation.

The issue of WLB became a major societal challenge within developed societies during the final decades of the 20th century – these had been previously dominated by the employment of men as standard and the relegation of women to domestic, unpaid work¹⁸. What began as a policy concern in the Scandinavian countries has now become a policy priority for the European Union, where a number of directives and policy documents have been adopted over the last two decades. We could cite the 2010 Directive on work-life balance for parents and carers¹⁹ as just one example. Even though there is strong political will to promote WLB at EU level, the modes of support across different member states vary. Some of the most favourable were once found in the former socialist countries, but this support declined significantly during the transition years²⁰. In fact, WLB has gained somewhat recent momentum in the Bulgarian public debate since 2000 in large part due to pressures brought on by European membership²¹. Several legislative changes, policy measures, and specific projects to facilitate WLB were introduced in the country after 2007. Some specific examples include the extension of maternity leave and the forms of subsidized employment available to parents wanting to return to the labour market. However, the impact of these measures has been modest, at least in high-paying sectors such as ICT²². Indeed, as shown²³ employer support for work-life balance in Central and Eastern Europe is very limited. This conclusion can also be interpreted by the fact that small and medium-sized enterprises in Central and Eastern Europe (illustrated by Bulgaria and Hungary)²⁴ share a number of informal trade-offs with employees on issues such as wages,

¹⁸ R. Crompton and C. Lyonette, "Work-life 'balance' in Europe", *Acta sociológica* Vol: 49 (2006).

¹⁹ European Commission. Directive of the European Parliament and of the Council on work-life balance for parents and carers and repealing Council Directive 2010/18/EU (Brussels: EC, 2017), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52017PC0253> (30.03.2020).

²⁰ A. K. Abendroth and L. Den Dulk, "Support for the work-life balance..."

²¹ S. Kovacheva and S. Spasova, "Bulgaria: La conciliation vie familiale-vie professionnelle..."

²² G. Yordanova and V. Kirov, "Predizvikelstvata pred rabotata ot razstoyanie: sluchayat na balgarskite zheni v sektora na informatsionnite i komunikatsionni tehnologii", in *Neravenstva i sotsialna (dez)integratsia: V tarsene na zaednost*, eds. P. Boyadzhieva, M. Kanushev, and M.Y. Ivanov (Sofia: Iztok-Zapad, 2018).

²³ A.K. Abendroth and L.Den Dulk, "Support for the work-life balance..."

²⁴ M. Illesy; V. Kirov; C. Makó and S. Stoeva, "Labour relations, collective bargaining and employee voice in SMEs in central and eastern Europe", *Transfer: European Review of Labour and Research*

working hours, safe and healthy working conditions, and WLB. A recent study shows that employers' attitudes towards work-life balance issues are based on understanding different individual problems rather than being part of an organizational policy²⁵. Moreover, managers say they do not have a good understanding of the legislation regarding work-life balance. All this suggests that women in Bulgaria, especially those caring for children, are underrepresented in the ICT sector due to a lack of company²⁶ or public policies supporting a favourable WLB.

The development of the 'digital transformation' has been rapidly changing the world of work in Europe²⁷. While the new technologies are not deterministic, their deployment has had important impacts on work and employment in the continuum of pessimistic-to-optimistic scenarios about job destruction, job creation, job change, and job replacement²⁸. The digitalization of work through the platform economy (also referred to as 'Uberisation'), together with the important increase in virtual work, has drawn increasing interest from both academics and policy makers. For example, in 2015 Eurofound was already mapping²⁹ new practices of work and employment, stressing the fact that the most widespread are ICT mobile work and crowdsourcing. While there are several current attempts to measure the spread of these phenomena and estimate their future trends³⁰, it is still difficult to get a clear idea of their scope. Various authors have used different methods, but their projections are often in contradiction with one another³¹. However, there is a consensus that both ICT mobile work and online labour platform work have been on the increase. While Bulgaria is not generally considered to be at the forefront of virtual work practices, its development in the ICT sector does follow general trends. For instance, in June 2015 there were about 23,000 freelancers from Bulgaria registered on job platforms online. By January 2018, this number had grown to over 43,000 (up by 90%)³². A few qualitative studies have confirmed that both forms of virtual work are growing in the country³³.

Vol: 13 (2007).

²⁵ M. Sotirova and V. Ivanova, V. Problemi i politiki za balansirane na semeynia i trudovia zhitov, fondatsia „Fridrih Ebert“ (Sofia: KNSB, 2012), <https://library.fes.de/pdf-files/bueros/sofia/09689.pdf> (29.03.2020).

²⁶ R. Stoilova, "Impact of Gender on the Occupational Group..."

²⁷ Ch. Warhurst; S.A. Barnes; S. Wright; S. Dhondt; Ch. Erhel; N. Greenan; M. Guergoat-Larivière; S. Hamon-Cholet; E. Kalugina; O.E. Kangas; V. Kirov; M. Kohlgrüber; Ch. Mathieu; T. M. Leach; P. Oeij; C. Perez; E. Pomares; J. Ryan-Collins; A. Schröder and F. Zee. D2.1 Guidance paper on key concepts, issues and developments. Conceptual framework guide and working paper (Leiden: BEYOND4.0 project, 2019), <https://beyond4-0.eu/storage/publications/1bQ7ZUHPabsH8wV2xVrGN4lkxl2W0ykGdKHXPOWb.pdf> (31.03.2020).

²⁸ C. Degryse, Digitalisation of the economy and its impact on labour markets (Brussels: ETUI, 2016), 52.

²⁹ Eurofound. New forms of employment (Luxembourg: Publications Office of the European Union, 2015), <https://www.eurofound.europa.eu/fr/publications/report/2015/working-conditions-labour-market/new-forms-of-employment> (31.03.2020).

³⁰ U. Huws; N.H. Spencer and S. Joyce, Crowd work in Europe: Preliminary results from a survey in the UK, Sweden, Germany, Austria and the Netherlands (Brussels: European Foundation for Progressive Studies, 2016).

³¹ J. Drahokoupil and A. Piasna, Overview of some Central and Eastern European countries (Brussels: ETUI, 2019).

³² Eurofound. Employment and working conditions of selected types of platform work (Luxembourg: Publications Office of the European Union, 2018), <https://www.eurofound.europa.eu/publications/report/2018/employment-and-working-conditions-of-selected-types-of-platform-work> (27.03.2020).

³³ G. Yordanova, "Global digital workplace as a potential..."

Building on previous research about the positive role telework has had on WLB³⁴, we argue that virtual work contributes to a better WLB in the Bulgarian ICT sector, especially among women caring for children. Still, the use of virtual work does not only reflect benefits³⁵ and also has its disadvantages³⁶.

Methodology

Virtual work is a relatively new phenomenon in Bulgaria. As there are no available official statistics about the number and characteristics of virtual workers in Bulgaria, and their lack of a specific workplace makes them hard to assess, mixed methods³⁷ were combined for the aims of this study on the basis of an online questionnaire³⁸ complemented by qualitative interviews. The study's range can be broadened and more dimensions of a phenomenon can be explored when both qualitative and quantitative methods are used.³⁹

Qualitative data was collected from 14 in-depth, semi-structured interviews via Skype⁴⁰ in August 2016. Of them, 3 interviews were conducted with HR managers (from the largest members of the Bulgarian Association of Software Companies – BASSCOM), 7 were with employees from the largest ICT companies (5 women and 2 men), and 4 interviews were done with freelancers from this sector who had registered profiles on one of the 5 most popular online labour platforms: *Upwork*, *Freelancer*, *Guru*, *PeoplePerHour* or *Fiverr* (3 women and 1 man). Three separate guides were prepared for conducting the in-depth interviews. During the fieldwork, recording equipment (voice recorder) was used to provide more accurate and comprehensive documentation of the collected information. The interviews lasted for approximately one hour and they were later transcribed. They followed a core set of themes. The guide for HR managers included research and analysis about company policies for reconciling work and private life through virtual work in the ICT sector – leading up to a personal evaluation of their existence, formulation, implementation, and effectiveness. The guide for employees from the ICT sector focused on tracking the effect of existing social policies on work-life balance for those engaged in virtual work – with the same personal evaluation of their existence, formulation, implementation, and effectiveness. Finally, the guide for freelancers sought to highlight any personal achievements related to work-life balance as well as its extension and conditions. The information collected through the in-depth interviews was used to build the quantitative research tools.

We collected quantitative data from the questionnaire adapted for the three target groups (employees, freelancers, and HR managers) in the course of the study. Web-based surveys were constructed using SurveyMonkey⁴¹ and published online in Bulgarian. The participants representing companies (HR and employees) were contacted via e-mail (the

³⁴ E. J. Hill; B. C. Miller; S. P. Weiner and J. Colihan, "Influences of the virtual office on aspects of work and work/life balance", *Personnel psychology* Vol: 51 (1998).

³⁵ M. Hilbrecht; S. M. Shaw; L. C. Johnson and J. Andrey, "I'm home for the kids': contradictory implications for work-life balance of teleworking mothers", *Gender, Work & Organization* Vol: 15 (2008).

³⁶ G. Yordanova and V. Kirov, "Predizvikatelstvata pred rabotata..."

³⁷ A. Tashakkori and C. Teddlie, *Mixed Methodology: Combining Qualitative and Quantitative Approaches (Applied Social Research Methods (Thousand Oaks, California: SAGE Publishing, 1998).*

³⁸ M. Van Selm and N.W. Jankowski, "Conducting Online Surveys", *Qual Quant* Vol: 40 (2006).

³⁹ J. Greene, *Mixed Methods in Social Inquiry (San Francisco, CA: John Wiley & Sons, 2007).*

⁴⁰ J. R. Sullivan, "Skype: An Appropriate Method of Data Collection for Qualitative Interviews?", *The Hilltop Review* Vol: 6 (2012).

⁴¹ <https://www.surveymonkey.com>

research team was assisted by employers' organisations in the sector). The invitations for freelancers were emailed to 50 men and women who have a registered profile in at least one of the 5 most popular portals for freelance work in the ICT sector. The invitation was also published on social media (in closed professional Facebook⁴² and LinkedIn groups). The recruitment conditions were fulfilling a remote job in ICT the sector and parenting a child under the age of 18. A total of 397 participants completed the survey from 8 August 2016 to 30 September 2016. The data was analysed using SPSS⁴³ software. Statistical analyses for non-representative sample surveys were used to interpret the results. Although the sample is not representative, chi-squared analysis (χ^2) was used illustratively and experimentally to provide guidance for further in-depth studies. The content-analysis method was used to analyse the information collected from the conducted qualitative studies (in-depth interviews). The online questionnaires covered the same topics as the in-depth interviews. Over two-thirds (74.8%) of those who participated in the survey combined their office-based work with work from home. The rest were freelancers working remotely through online labour platforms. For all employee respondents, virtual work was carried out under the framework of a permanent employment contract. The freelance respondents were working on multiple service-provision contracts. 76% of respondents had been working from home for duration of 1 to 5 years; every fifth respondent (24%) had been working remotely for more than five years. These results suggest that respondents' opinions were not overestimated because of any recent changes but were rather based on rich, long-term first-hand experience. The average duration of their remote work was 3.76 years. Few respondents had been working for 15 years or longer in this way. The majority of participants (70.6%) were women⁴⁴. The average age of respondents in the project was 36.3 years. The respondents were also highly educated: most of them (84.9%) said that they had graduated from university. All participants were parents taking care of one or more children up to 18 years of age.

The context: the ICT sector in Bulgaria and virtual work

The ICT sector in Bulgaria has longstanding traditions. The country was once the largest computer manufacturer among socialist countries. After the political changes in 1989, many private companies were created on the foundations of previous state-owned companies⁴⁵. In 2016⁴⁶, the total turnover from the ICT industry in Bulgaria exceeded 10 billion BGN. Estimates of total employees vary: according to some experts, the industry employs 70,000 people, and if self-employed freelance specialists were added, the total number would reach 100,000 people. Other estimates are more conservative, with about 20,000 in the software industry and over 40,000 in the IT outsourcing sector. Revenues for these two subsectors alone account for more than 2 billion BGN (2.25% of GDP and about 0.8% of employees in Bulgaria) and over 3 billion BGN (3.41% of GDP and just over 1.7% of employees in Bulgaria)⁴⁷, respectively. The information and communication technology

⁴² Professional group on the social network Facebook under the name Freelancers (in Bulgarian: Фрилансъри) with 72,806 members as of 2019; a freelance Facebook page, which is a blog for beginners and advanced freelancers (in Bulgarian: Свободна практика) with 2,042 likes and 2,092 followers; Mother Mila on Facebook (in Bulgarian: Майко мила), which is an entertainment page about women entering the new social role of mother, with 90,493 likes and 91,571 followers.

⁴³ Version 21.0 (IBM, 2012)

⁴⁴ Women are generally more likely to take part in studies.

⁴⁵ I. Tchalakov and P. Burton, "Project TACTICS (Telematics..."

⁴⁶ CBN - Pannoff, Stoytcheff & Co. ICT industry in Bulgaria 2016 - annual observer by CBN Pannoff, Stoytcheff (Sofia: CBN - Pannoff, Stoytcheff & Co, 2016), <http://web.cbn-bulgaria.com/> (20.03.2020).

⁴⁷ CBN - Pannoff, Stoytcheff & Co, ICT industry in Bulgaria 2019 - annual observer by CBN Pannoff, Stoytcheff. Sofia: CBN - Pannoff, Stoytcheff & Co, 2019. <http://web.cbn-bulgaria.com/> (20.03.2020).

(ICT) industry in the country recorded excellent results in 2018, both in terms of operating revenue and jobs, as well as in terms of pay. According to the available data, ICT revenue growth in Bulgaria was up by 1.32 billion BGN from the previous year. Jobs in this sector have increased by over 5,000 in number, and there are already 50 companies in Bulgaria employing more than 250 people each.

While the sector did develop without any particular public support for a long time, following the country's entry into the European Union in 2007 there has been support in the form of public policies which are mainly financed by European structural funds. These include policies aimed at competitiveness among ICT companies, digital and physical infrastructure – for example, the establishment of the Sofia Tech Park – and the training of ICT specialists. In parallel, some strategic documents have also been issued by the Bulgarian authorities. In 2015, the Bulgarian government adopted a Concept for Encouraging the Training of Software Specialists, with the goal of creating the conditions for over 30,000 ICT specialists to be trained over the next 15 years. However, those ambitious aims have yet to be achieved, at least not by public intervention. In parallel to these public efforts, though, many private companies have launched their own training facilities, like *SoftUni* and *Telerik Academy*. The prerequisites for the development of virtual work in the Bulgarian ICT sector are related to the increasing penetration of new technologies and the widespread availability of options for ICT secondary and university-level education. The introduction of new information technologies in Bulgaria has been significant, according to the National Statistical Institute⁴⁸ (NSI). Over a period of twelve years (2007-2019⁴⁹), the share of households with at-home internet access increased by 56 percentage points. In 2019, their share was 75.1%, compared with 19% in 2007. Almost all households with internet (74.9% in 2019) use broadband access, i.e., they are provided with a fast and reliable connection. In 2019, 66.8% of the population in the 16-74 age group were using the internet every day or at least once a week. This share is more than double what was registered in 2007 (28.4%). The widespread penetration of information technology in Bulgaria and the excellent working conditions in this sector have provoked popular interest in completing a degree in the field. According to Eurostat⁵⁰, a total of 4,254 graduates had majored in the ICT sector in 2017. Of these, 2,606 (61.3%) were men and 1,648 (38.7%) were women. Furthermore, the fact that twice as many men in Bulgaria exercise some professional activity in the ICT sector can also be attributed to women's poor representation. Still, despite the sector's male dominance, Bulgaria ranked first in 2018⁵¹ for the number of women working in ICT among EU member states – 28.3% (27,100 women) against an EU average of 16.5%.

Research findings

The results of our analysis are presented in this section. Firstly, the evaluations of respondents related to the available public policies for WLB are examined. Second, we discuss their motivations for virtual work and perceptions about its benefits and

⁴⁸ <https://www.nsi.bg/en>

⁴⁹ Dynamic data is available in the NSI Information Society menu at: <https://www.nsi.bg/en/content/6085/information-society>

⁵⁰ Eurostat. Education and training: Graduates by education level, programme orientation, sex and field of education [educ_uae_grad02] in Bulgaria, 2019 (Luxembourg: Eurostat, 2019), <https://ec.europa.eu/eurostat/web/education-and-training> (20.03.2020).

⁵¹ Eurostat. ICT specialists in employment, 2019 (Luxembourg: Eurostat, 2019a), https://ec.europa.eu/eurostat/statistics-explained/index.php/ICT_specialists_in_employment#ICT_specialists_by_sex (20.03.2020).

disadvantages. Thirdly, existing company social policies contributing to WLB and respondents' evaluations of them are shared.

Insufficient public policies and measures to reconcile work and family life

Respondents believed that the current legal framework in Bulgaria (EU directives, ILO conventions⁵² and national legislation) was insufficient and did not adequately encourage companies to implement measures for balancing family and professional life. The respondents were familiar with existing public programmes and measures, but they evaluated these negatively because they were not targeted and “*not differentiated by sectors of the economy*” (int1, Human Resources Manager).

According to the Ministry of Labour and Social Policy (MLSP), there are two measures for the 2010-2015 period under the Employment Promotion Act (Article 53a), the direct aim of which is to achieve WLB. The first measure provides employment for single parents and/or mothers with children up to 3 years of age and the second directs this provision to mothers with children from 3 to 5 years of age. According to data from the Employment Agency for 2015 and 2017, a very limited number of users have been included in both measures: respectively, 140 persons in 2015 and 247 in 2017. The EU-funded Human Resources Development Operational Programme (2014-2020) has foreseen the financing of home-based services such as childcare, cleaning, domestic assistance, and so on. The services are purchased through the exchange of vouchers. Hourly childcare for children aged 1 to 5 are provided in the parents' home by hired and trained unemployed persons registered with the labour offices. According to the MLSP, the vouchers for such at-home services allow individuals to make use them at a lower-than-market price, as part of their value is subsidized. The ministry is of the opinion that the use of these services will contribute to employees' better WLB.

Zornitsa Rusinova (Deputy Minister of Labour and Social Policy) announced in 2019 that:

“For the construction of kindergartens, enterprises will be allocated 15 million BGN under the Human Resources Development Operational Programme. About 200 private and public sector employers will be supported to adapt and equip a suitable hourly childcare facility. They will be able to apply for projects worth between 50 thousand and 150 thousand BGN. This will make it easier for employees of the company to reconcile their professional and personal lives. Care workers will be recruited by nursery centres through the Labour Offices to ensure that childcare is adequate. Nursery workers' salaries will be 1,200 BGN per month, which is the average gross monthly wage for economic activities in Human Health and Social Work, and we plan to cover the cost of wages for one year under the procedure. We will enable businesses to develop partner projects.”⁵³

Thus, despite the increasing scope of public policies related to WLB, the fact that they are nationally promoted, rather than tailored according to sector specificities, hinders ICT employees from achieving better WLB. In fact, the only measures evaluated by survey respondents and interviewees were the vouchers for hourly childcare, the partial waiving of

⁵² International Labour Organization, www.ilo.org

⁵³ Ministerstvo na truda i sotsialnata politika: Komitetat za nablyudenie shte obsadi tri novi merki na OPRCHR v podkrepa na pazara na truda, <https://www.mlsp.government.bg/index.php?section=PRESS2&prid=1877>

kindergarten fees on the part of the employer, and kindergartens built by employers for employees' children (in the rare cases of some large ICT companies).

Motivation for virtual work and perceptions about its benefits

In the context of insufficient public policies to support WLB, the main reason for the adoption of virtual work is related to the transition to parenthood, according to most interviewees. This is because of the particular demand for WLB during that period. This result was also confirmed in the online survey (Table 1): *“In order to spend enough time on my family (housekeeping, childcare)”*. This corresponds to every third respondent (34%) in the group of employees and 38.1% of freelancers.

Table 1. Main reason for choosing a distance job (distribution among all, employees and freelancers)

What is the main reason why you chose distant work? (Spontaneous answers)	Employment Status		
	Among all	Employees	Freelancers
So that I can spend enough time on my family (housekeeping, childcare)	35.9%	34.0%	38.1%
Saving time and cost of transport to the office and vice versa	14.1%	18.0%	9.5%
For independence, the freedom to choose what to work for	10.9%	12.0%	9.5%
Bonus to standard work conditions in the company	7.6%	10.0%	4.8%
To live in the populated area where I prefer	7.6%	2.0%	14.3%
Thanks to the convenience of better time management (flexible working time)	6.5%	8.0%	4.8%
Because of the possibility of higher incomes	5.4%	6.0%	4.8%
I work in the most effective time for me	4.3%	4.0%	4.8%
Because of the comfort of the home environment	3.3%	4.0%	2.4%
Because of the higher labour productivity	3.3%	2.0%	4.8%
Lack of stress (no personal contact)	1.1%	0.0%	2.4%

N=397

The vast majority of respondents (86.3%) shared that the choice of starting virtual work was their own. This amount is a full 6 percentage points higher among freelancers (92.7%) (Table 2).

Table 2. Initiative behind selection of distance work (distribution among all, employees and freelancers)

		Was it your choice to telework?	
		Personal choice	Other initiative
Among all		86.3%	13.7%
Employment Status	Employees	81.5%	18.5%
	Freelancers	92.7%	7.3%

N=397

Because of the hours saved not commuting to work, as well as performing one's work in less time – *“purposefully, concentrated, motivated for 4 hours”* (int 3, freelancer, female) – the interviewees said that they managed to spend more time with their families.

The advantages of working from a distance are perceived as numerous, which the interviews illustrated. Virtual work, for the interviewees, makes it possible to reconcile family and work commitments:

“I can safely take my child to the kindergarten without worrying about being late. If I receive a phone call from the kindergarten saying that my child has a fever, I can take them home without the boss or my colleagues looking at me, making me feel guilty,” (int 3, freelancer, female);
 “I can bring my child to a dentist, to a doctor,” (int 4, employee, female);
 “While resting during the day, I can run the washing machine, put something on the stove,” (int 5, employee, female).

The employees and freelancers interviewed thought that they could be more productive and do more work in a shorter amount of time while working from home:

“I work a lot more in a much shorter time. There is no one to distract me,” (int 4, employee, female);
 “The concentration of a person is no more than 4 hours a day. No one can convince me that they work more than that. I do not know why employers are misleading?! The rest of the working time either goes to social networks or gossiping with colleagues or brochures and newspapers,” (int 4, employee, female).

In addition, according to some respondents, work from home can be organized in the most productive time of one's day: *“I am most productive from 6 to 10 A.M. and that is it,”* (int 2, freelancer, female).

Respondents also shared that virtual work allows them to have a more fulfilling lifestyle. Whether practising a sport – *“I can go to practice a sport,”* (Int 3, freelancer, female) – or accessing healthy food – *“I eat better quality food, I drink nice coffee,”* (int 1, freelancer, male) – they are managing their working time on their own terms, and this makes them less stressed:

“No one hovers over me... Sometimes I get stuck on a website or go out for an hour or two. Everyone rests differently. Is an hour's lunch break what it takes? Can you rest, eat, use the toilet, have a walk, and recharge?” (int 2, freelancer, female).

Among some respondents, virtual work was also associated with higher pay: “Now I get more money when I work from home,” (int 5, employee, female).

Respondents were asked to identify up to three benefits of their virtual work (Table 3). Among the spontaneous responses from both groups of workers, with some slight differences in accumulations: the possibility to plan out commitments (workload); opportunities to reconcile personal and work commitments; saving on travel time; pleasant working environment (quiet, comfortable); availability of free time and ability to work during the time most productive for the respondent. Actually, freelancers ranked the fact that they can plan their commitments most highly (50%), while regular employees valued WLB the most.

Table 3. Benefits of virtual work (distribution among all, employees and freelancers)

What are the advantages of working at a distance, over office work? <i>(Up to 3 spontaneous responses are indicated)</i>	Among all	Employees	Freelancers
Ability to plan commitments (load)	36.6%	25.0%	50.0%
Ability to reconcile personal and work commitments	36.6%	45.5%	26.3%
Saves travel time	32.9%	40.9%	23.7%
Pleasant, quiet, comfortable work environment	24.4%	31.8%	15.8%
Existence of free time	24.4%	11.4%	39.5%
Ability to work in the most productive time for me	15.9%	9.1%	23.7%
Lack of interpersonal conflicts with colleagues	11.0%	13.6%	7.9%
It saves transport and food costs	11.0%	13.6%	7.9%
Lack of stress (no personal contact)	9.8%	13.6%	5.3%
Lack of connectivity between time and place of execution of commitments	9.8%	6.8%	13.2%
Independence, absence of a manager	8.5%	4.5%	13.2%
Opportunity to choose a job	8.5%	4.5%	13.2%
Ability to concentrate	7.3%	9.1%	5.3%
Opportunity for higher incomes	6.1%	6.8%	5.3%
Allows planning for weekend holidays	4.9%	4.5%	5.3%
Consuming healthy food	3.7%	6.8%	0.0%
Lack of vanity about what I look like	3.7%	4.5%	2.6%

N=397

But in parallel to these advantages, virtual work is not without its disadvantages. Every third respondent (31.8%) in the online survey reported experiencing problems with their child/children because of working from home. For the same reason, 28.2% of respondents had problems in a relationship with a spouse/intimate partner; 17.6% experienced health problems; 8.2% had a negatively affected social life; and 3.5% had issues in their relationships with parents (Table 4). In all cases, the differences between employees and freelancers were minimal.

Table 4. Occurrence of a problem in relationships with others because of working from home (distribution among all, employees and freelancers)

Working from home caused problems: <i>(More than one answer could be specified)</i>	Among all	Employees	Freelancers
In your relationship with your children	31.8%	30.4%	33.3%
In a relationship with a spouse/intimate partner	28.2%	23.9%	33.3%
With your health	17.6%	17.4%	17.9%
In your relationships with friends	8.2%	6.5%	10.3%
In your relationship with your parents	3.5%	2.2%	5.1%
In another relationship	2.4%	2.2%	2.6%
This did not happen to me	54.1%	54.3%	53.8%

N=397

Our analysis of the qualitative interviews provides additional explanations about the disadvantages of virtual work and the reasoning behind them. According to the interviewees, these were mainly related to a conservative organisational culture of the society, one focused on traditional employment, open-ended contracts, and work carried out on the premises of an employer. More precisely, interviewees said, with virtual work it so happens that many employers do not trust their employees because the employer: *“cannot trust that you will turn up, that you will work well... so some employers keep their employees logged in to the IT system to track how many hours they work, they constantly want to exercise control,”* (int 4, employee, female).

Additionally, however, what many interviewees found even more disagreeable was that their partners, children, and families did not understand or accept virtual work as a serious activity:

“Mom is at home, she does not go to work, so she does not work,” (int 3, freelancer, female);

“While I am talking to a customer, they [the kids] purposely intrude with unimportant questions, like ‘Where’s my toothbrush?’” (int 3, freelancer, female);

“My husband makes me bring the kids to sporting activities. He said: ‘You work from a distance, so while they are playing football, you will do what you have started’,” (int 4, freelancer, female);

“The family must understand that you are working, but not always. My son said: ‘I am on vacation, and you will work. When I am at school, you are resting’,” (int 2, freelancer, female).

While working in ICT jobs through virtual means, part of the required tasks include communication with clients, or at least a need for personal contact through video connection: *“to see you, otherwise they do not understand you ... and you wrote it to them by email and you told them on the phone,”* (int 2, employee, male).

Both groups of respondents considered the main disadvantage of virtual work to be the lack of social exposure (43%). In addition, respondents argued that they are misunderstood by their families and friends (24.1%). The other major disadvantages included: ineffective communication within the team; difficulties in distinguishing between professional and personal obligations; and excessive workload (Table 5).

Table 5. Disadvantages of virtual work (distribution among all, employees and freelancers)

And what are the disadvantages of working at a distance? (Up to 3 spontaneous responses are indicated.)	Among all	Employees	Freelancers
Lack of social exposure; social isolation	43.0%	52.4%	32.4%
Being misunderstood by family and friends	24.1%	21.4%	27.0%
Ineffective communication with the team	19.0%	23.8%	13.5%
Difficulties in distinguishing between professional and personal obligations	17.7%	21.4%	13.5%
Excessive workload with more tasks than acceptable	15.2%	11.9%	18.9%
A sedentary lifestyle leading to health problems	11.4%	14.3%	8.1%
Lack of guaranteed monthly income	10.1%	4.8%	16.2%
Opportunity for misunderstanding due to poor understanding of written communication	10.1%	11.9%	8.1%
Inability to participate in major projects	8.9%	9.5%	8.1%
Communication problems with customers in different time zones	6.3%	2.4%	10.8%
Dependence on availability of electricity and Internet connection	6.3%	9.5%	2.7%
Use of paid accounting services for self-employed persons	3.8%	0.0%	8.1%
Difficult access to equipment scanner, printer, office supplies	3.8%	7.1%	0.0%
Existence of high competition	2.5%	4.8%	0.0%
Existence of work outside the formal working hours also on weekends and holidays	2.5%	2.4%	2.7%
There are no disadvantages	6.3%	4.8%	8.1%

N=397

The interviews also underlined that there is a lack of socializing in the framework of virtual work. Respondents revealed their strategies to cope with this through online communication or face-to-face meetings with friends:

“Messengers, e-mail, and phone cannot replace personal contact. The need to have contact with colleagues should be compensated in some way – I attend seminars, conferences for this purpose,” (int 6, freelancer, male);

“I get together with a friend to have lunch and we meet at his office. I work from a nearby establishment until the meeting time,” (int 5, employee, female);

“I hired a shared office,” (int 3, freelancer, female).

Especially among the group of freelancers, respondents shared some further disadvantages of freelance virtual work and its insecurity:

“Few survive. People are accustomed to relying on pay at the end of each month. It is hard not to know whether they will have anything at the end of the month,” (int 2, freelancer, female);

“There is no work, you do not work, you do not earn money,” (int 3, freelancer, female);

“Most of the starting freelancers give up in the 3rd month – they return to working under a labour contract,” (int 3, freelancer, female).

Existing company social policies for WLB

88% of respondents were satisfied with their WLB (Table 6). There was a slight difference of perceptions between the two groups: 91.7% of freelancers reported satisfaction while only 85.7% of employees stated the same.

Table 6. Satisfaction with the balance between work and family commitments (distribution among all, employees and freelancers)

		Are you satisfied with the balance between work and family commitments?	
		Rather yes	Rather no
Among all		88.5%	11.5%
Employment status	Employees	85.7%	14.3%
	Freelancers	91.7%	8.3%

N=397

For every fourth person in the survey (25.3%), virtual work was seen as fully contributing to the WLB achieved, while for about two thirds (65.3%) it only partially contributed (Table 7). That is why 91% of respondents said that they would not stop working in this way.

Table 7. Influence of the fulfilment of remote work obligations on the achieved balance (distribution among all, employees and freelancers)

		How do well you consider your performance of remote business duties to help your WLB?			
		Completely helps	Rather helps	Rather no	It does not help at all
Among all		25.3%	65.3%	8.0%	1.3%
Employment status	Employees	20.0%	70.0%	7.5%	2.5%
	Freelancers	31.4%	60.0%	8.6%	0.0%

N=397

In order to investigate relationships between gender, duration of distance work, and children’s age (defined as factor variables) and parents’ satisfaction with the balance between work and family commitments (resultant variable), a chi-squared analysis was used (χ^2). The two studied groups in the project – regular employees and freelancers – were considered separately and in comparison. The following analytical tasks were carried out.

Task 1:

Check that there is a statistically significant relationship between gender and satisfaction with the balance between work and family commitments.

Hypotheses:

H0: There is no statistically significant relationship between gender and satisfaction with the WLB.

H1: There is a statistically significant relationship between gender and satisfaction with the WLB.

Asymp. Sig. (2-sided) of Pearson’s chi-squared test = 0.000, which is less than $\alpha = 0.05$; therefore, we assume H1 is true: there is a statistically significant relationship between gender and satisfaction with the WLB among the monitored groups of respondents.

Cramer’s V is statistically significant among both the employees and freelancers surveyed (Approx. Sig.] = 0.000 < α). Therefore, the relationship between gender and work-family balance satisfaction is moderate: for employees, it was 0.453, and for freelancers, 0.523 (Table 8). All women (100%) working as freelancers were pleased with their WLB.

Table 8. Examination of the presence and the power of gender-based communication and satisfaction with the balance between work and family commitments

		Symmetric Measures			
		Employees		Freelancers	
		Value	Approx. Sig.	Value	Approx. Sig.
Nominal by Nominal	Phi	.641	.000	.740	.000
	Cramer's V	.453	.000	.523	.000
N of Valid Cases		297		100	

N=397

Task 2:

Check that there is a statistically significant relationship between the age of children and parents’ satisfaction with the balance between work and family commitments.

H0: There is no statistically significant relationship between the age of children and parents’ satisfaction with the balance between work and family commitments.

H1: There is a statistically significant relationship between the age of children and parents’ satisfaction with the balance between work and family commitments.

Asymp. Sig. (2-sided) of Pearson’s chi-squared test = 0.000, which is less than $\alpha = 0.05$; therefore, we assume H1 is true: there is a statistically significant relationship between the age of children and parents’ satisfaction with the balance between work and family commitments.

Cramer’s V is statistically significant for both employees and the freelancer group ([Approx. Sig.] = 0.000 < α). The relationship between the age of the child and the parent’s

satisfaction with the work-family balance was average among both groups: 0.528 for those working on a labour contract and 0.586 for freelancers (Table 9). When the child/children's age increased, satisfaction increased, as well.

Table 9. Examination of the existence of and the link between the child's age and the parent's satisfaction with the balance between work and family commitments

Symmetric Measures					
		Employees		Freelancers	
		Value	Approx. Sig.	Value	Approx. Sig.
Nominal by Nominal	Phi	.747	.000	.829	.000
	Cramer's V	.528	.000	.586	.000
N of Valid Cases		297		100	

N=397

Task 3:

Check that there is a statistically significant relationship between the duration of virtual work and the satisfaction of the balance between work and family commitments.

H0: There is no statistically significant relationship between the duration of virtual work and satisfaction with the balance between work and family commitments.

H1: There is a statistically significant relationship between the duration of virtual work and satisfaction with the balance between work and family commitments.

Asymp. Sig. (2-sided) of Pearson's chi-squared test = 0.000, which is less than $\alpha = 0.05$, therefore we assume that H1 is true: there is a statistically significant correlation between the duration of virtual work and satisfaction with the balance achieved between work and family commitments.

Cramer's V is statistically significant for both the employees and freelancers in the survey ([Approx. Sig.] = 0.000 $< \alpha$). The relationship between the duration of distance work and work-family balance satisfaction was moderate in both groups: 0.636 for employees and 0.668 for freelancers (Table 10).

Achieving WLB remains relatively difficult until the third year since switching to virtual work. With some differences, this applied to both groups of respondents. The results show that among those exercising their opportunity to work remotely for three to four years, this satisfaction was growing.

Table 10. Examination of the existence of and the link between the duration of distance work and satisfaction with the balance between work and family commitments

		Symmetric Measures			
		Employees		Freelancers	
		Value	Approx. Sig.	Value	Approx. Sig.
Nominal by Nominal	Phi	.900	.000	.945	.000
	Cramer's V	.636	.000	.668	.000
N of Valid Cases		297		100	

N=397

These findings also underline the significance of company policies for WLB. In fact, interviewees appreciated the policies led by their companies, arguing that their key advantages include: *“the possibility of work from a distance,”* and *“flexible forms of employment”*.

The survey included a block of questions addressed to employees in order to trace the effect of existing company policies supporting WLB when virtual work was practised. The calculated average score (on a scale from 2 to 6, where 2 was weak and 6 was excellent) assigned by employees to their company’s social policies was very good, 4.51 (Table 11).

Table 11. Corporate social policy assessment

On a scale from 2 to 6, where 2 is weak and 6 is excellent, how do you assess your company’s social policies?	Employees
Weak	2.7%
Medium	13.5%
Good	27.0%
Very good	43.2%
Excellent	13.5%
Total	100.0%
Average	4.51

N=297

More than two thirds of employees (70.3%) shared that they felt satisfied with the social benefits they enjoyed. Nearly one-third (29.7%), however, were rather dissatisfied (Table 12).

Table 12. Satisfaction with social benefits

Do you feel satisfied with the social benefits that you use?	Employees
Rather yes	70.3%
Rather no	29.7%
Total	100.0%

N=297

One in three employees (32.4%) shared the view that their company's social policies did not help them to achieve WLB (Table 13).

Table 13. Degree of influence of company social policy on the balance of work and private life

Does your company's social policy help you balance work-life, and if so, how much?	Employees
Completely	13.5%
Rather yes	54.1%
Rather no	32.4%
Total	100.0%

N=297

Conclusion

Our research has analysed the role of virtual work in improving WLB within the ICT sector in Bulgaria. This issue has gained relevance among policy makers and companies in the country relatively recently.

Using quantitative surveys and qualitative interviews, we tested three hypotheses about the relationships between gender, duration of virtual work, and the age of children (defined as factor variables) and parents' satisfaction with their WLB (resultant variable). For all three hypotheses, we found that a significant relationship exists between: gender and WLB satisfaction, child/children's age and WLB satisfaction, and the length of virtual work and WLB satisfaction.

Our results are in line with comparable results⁵⁴ from previous research⁵⁵ on the inadequacy of public policies to ensure a balance between work and private life in Bulgaria, at least for highly paid sectors and among a highly skilled workforce. In this context, company policies are extremely important. Though our results have shown that overall company policies supporting WLB have a limited impact, the possibility of virtual work and, in a broader sense, flexible working conditions can and do contribute to better WLB. Still,

⁵⁴ M. Illesy; V. Kirov; C. Makó and S. Stoeva, "Labour relations..."

⁵⁵ S. Kovacheva and S. Spasova, "Bulgaria: La conciliation vie familiale-vie professionnelle..."

the fact that the choice remains an individual one in the vast majority of examined cases, not a solution proposed or imposed by companies or contract givers (in the case of freelancers), reveals that this positive result is thanks to individual arrangements and trade-offs rather than specific policies. The examined sector also includes a highly qualified and well-paid workforce, and it is not possible to generalise these results beyond it. In addition, the transition to virtual work corresponds not only to advantages for the employee/freelancer but also to a number of disadvantages, e.g., the family's failure to fully understand that virtual work is "real" work.

The results of our correlation analysis have shown that, when formulating and implementing company social policies, it is of the utmost importance to take into account the age of employees' children because parents' needs in reconciling work with their duties will change at different ages.

In a broader sense, the results of the above analysis can facilitate the formulation of specific recommendations to companies in the sector and to employees or freelancers involved in virtual work. Women's participation in the sector could be boosted if companies started offering formalised policies or at least ad-hoc solutions involving virtual work for women in parenthood. This is particularly true for parents of children under the age of 6. Finally, the adoption of virtual work requires a period of adaptation and accommodation; in this respect, companies can support their employees while the employees themselves pay attention to this process of social learning, both in their work and home lives.

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