

## Effect of Technological Intervention on Work-Life Balance

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### Abstract:

Technology has sneaked into our lives and has become an inevitable part of every act of ours. This kind of technological interference has its impact on professional and personal lives across ages and domains of business. Though on one hand technology has helped to streamline tasks and make lives comfortable, it has interfered and influenced personal space, which has led to technostress, work-life imbalance, Work-life conflicts along with affecting the physical and mental wellbeing of individuals. The present study is aimed to assess the effect of the technological intervention on the lives of individuals and its effect on the work-life balance among professionals working in various sectors of business. A researcher-designed questionnaire was administrated via google forms to professionals based on convenience sampling. 73 professionals working in six departments belonging to various industries responded to the study. The objective of the study is to assess the relationship between variables like gender, tenure and department on Work-life balance. The result showed no significant influence of gender, tenure and department on work-life balance, though the  $R^2$  values hinted at having a larger sample for the calculation of the same.

**Keywords:** Technology intervention, Technostress, Quality of Work-life, Work-life balance, WLB

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Date of Submission: 02-06-2021

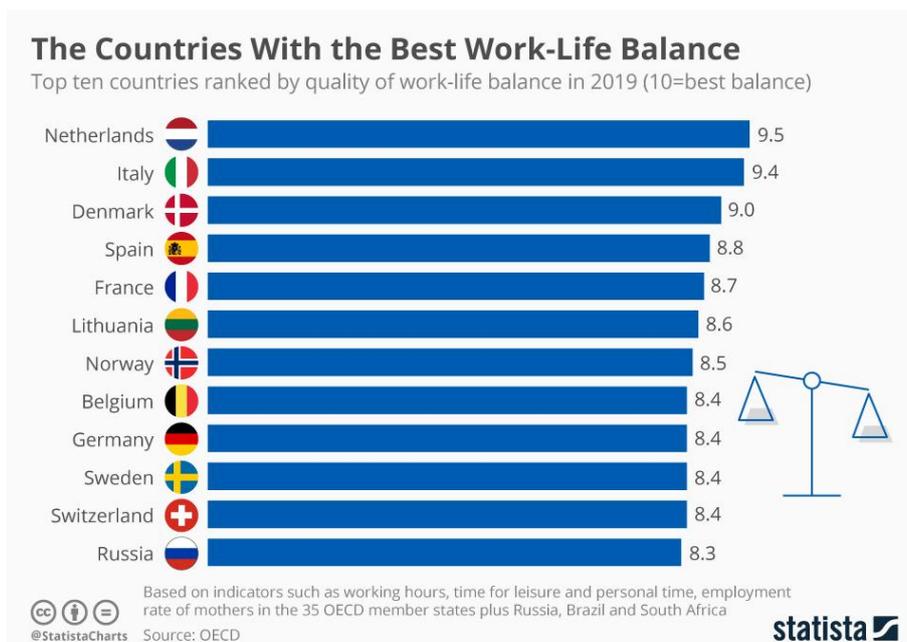
Date of Acceptance: 15-06-2021

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### I. Introduction:

Technology influences how people convey, learn and think. It helps society and decides how individuals associate with one another consistently. The present world is living in a period where technological adaptation is normal and inevitable. It has both positive and negative consequences, creating a very thin line between them. Technology is a developing need in business now. A fast-paced business world backed by the need to cater to rapidly growing stakeholders' demands is forcing businesses to adopt and adapt technology and innovation into workplaces too. Technology has in a real sense changed every part of how organizations work at a high speed, making the business exchanges quicker, more proficient and more helpful. Technology hugely affects business activities. Regardless of the size of the organization, innovation can bring numerous advantages to cater to the requirements of the growing world. The fundamental part of technology and innovation is to drive development and improve tasks. Various enterprises and organizations depend on innovation since it improves business correspondence, upgrades creation, stock administration and record-keeping. Nonetheless, with technological advances, there are drawbacks too. With constant exposure to technology, employees get stressed too. issues like work-life balance, quality of Work-life, technostress, etc crawl into the lives of the people.

American Psychological Association defines Work-life balance as - "the level of involvement between the multiple roles in a person's life, particularly as they pertain to employment and family or leisure activities. Achieving a good balance or fit is thought to increase life satisfaction". An article titled: "Three Ways Technology Can Help With Work-Life Balance" published by Forbes on 26 March 2019, stated that according to a research, 70% of business executives surveyed opined - "technology bringing work into their personal lives". An article published by 'Insurance Business America' on 18 May 2018, stated that a positive work-life balance will reduce attrition by 12% in the organizations. As per statistics published by Statista, Netherland, Italy, Denmark are the top three countries (for the year 2019) where the quality of Work-life balance is good.



Source: *statista.com*

Technology can improve work environment proficiency, efficiency, and adaptability; and on the personal front can affect people's intellectual and mental wellbeing. Hence there is a need to understand the effect of technological invasion in workplaces on the work-life balance of professionals working in the corporate sector.

Work-life balance in simple terms is an interaction between personal life and professional life. The rise of Information and Communication Technologies (ICT) has drastically changed the work-life interface (Chan, Xi Wen; Field, Justin Craig, 2018). The Happiness index report of 2019, state “technology and innovation have to some extent decoupled well-being from nature” (World Happiness Report, 2019). When it comes to technological intervention into work-life balance, two theories that explain the conditions better are “Spill-over theory” and “Work-enrichment model”. The spill-over model is a process where one aspect of an employee’s task affects the other aspect of his/her life either positively or negatively. The Work-enrichment model on the contrary explains the relationship between work and family. According to this model, experience in one role (work or family) will enhance the quality of life in the other role, thus this model explains the positive effects of the family and work-life. Both these theories justify the intensity of technological interference into family and work life. The more interference, the more will there be spill-over into personal lives; the lesser is the interference the better will family life be.

## II. Literature Review:

Most researchers who have studied technological intervention have concentrated their studies on technostress. Dr. Bhattacharyya in her article on “Coping with Techno-Work-Life Stress”, examined 250 IT professionals across various levels of the organizations and found that marital status and gender showed a significant impact on technology and work-stress. Ayyagari, R. (2007), in his thesis titled ‘What and why of technostress: Technology antecedents and implications’ studied 692 working professionals and concluded that technostress exists and that role ambiguity is a major contributor to technostress. Boswell & Olson-Buchanan (2007) in their article on “The use of communication technologies after hours: The role of work attitudes and work-life conflict” related the ICT to work attitudes and work-life conflict. A significant influence of ‘usage of ICT’ was observed on Work-life conflict among the respondents. Varun Grover and Russell Purvis (2011) studied ‘Technostress: Technological Antecedents and Implications’ and recommend the pervasiveness of technostress among employees in the workplace. Work overload and role ambiguity were discovered to be the two contributing stressors, though intrusive technology attributes are discovered to be the predominant indicators of stressors. Agota Giedrė Raišienė, Steponas Jonušauskas (2013) studied the effect of techno-stress identified with the use of ICT on work and life balance of employees in Lithuania’s organizations. The consequences of the examination uncovered that employees in Lithuania worked under high techno-stress conditions that are shaped by changes in the global business climate and leadership’s mentality towards ICT prospects. 75 % of the representatives were discovered to be influenced by technostress, and 41 % of the respondents experienced work and life irregularity.

Barber & Jenkins (2014) in their article “Creating technological boundaries to protect bedtime: Examining work-home boundary management, psychological detachment and sleep” surveyed 315 professionals and stated that ICT interference into work and home affects health and sleep. Brooks, S, Longstreet, P & Califf, C. (2017) in an article on ‘Social media-induced technostress and its impact on Internet addiction: A distraction-conflict theory perspective’ described the negative impacts of utilizing online media at work. Tarafdar, Cooper and Stich (2019) in their article on ‘The technostress trifecta- techno eustress, techno distress and design: Theoretical directions and an agenda for research, discussed measures to counter technostress by adopting 3 steps: (i) changing the perception of technology from having negative outcomes to positive outcomes, that lead to greater effectiveness and efficiency; (ii) mitigating the negative effects of technostress through appropriate design. (iii) emphasizing on creating an interdisciplinary framework that encompasses both the Information system and psychological stress.

### III. Objectives Of The Study:

The study aims to assess if technology has any effect on the work-life balance of working professionals and to assess if there is any difference in their opinions with respect to gender, tenure and the department they are working in. The objective is coded into the following hypotheses:

H: Is there a relationship between gender, tenure and department with work-life balance

H<sub>n</sub>: There is no relationship between gender, tenure and department with Work-life balance

H<sub>a</sub>: There is a relationship between gender, tenure and department with Work-life balance

### IV. Research Methodology:

A researcher designed a questionnaire of 15 statements grading on a 5-point Likert scale, was administrated to professionals working in various departments of manufacturing companies, IT & ITES companies, Pharma companies and companies under the banking sector. 73 professionals responded to the pilot survey. A random sampling method was adopted for the study. The questionnaire for the study was administrated via google form.

### V. Data Analysis:

Demographic profiling of the respondents state shows that the respondents belong to 6 departments from various organizations with a larger percentage of professionals belonging to the HR and finance departments of their respective workplaces (Table 1).

**Table 1:** Demographic profiling of respondents

		Frequency	Percent
Gender	Male	45	61.6
	Female	28	38.4
Tenure	<=5 years	52	71.2
	5-15 years	21	28.8
Department	HR	27	37.0
	Engineering	8	11.0
	IT	8	11.0
	Finance	20	27.4
	Marketing	7	9.6
	Medical	3	4.1

Since the questionnaire was developed by the researcher, hence the reliability of the questionnaire was to be tested. Cronbach Alpha of the questionnaire is calculated at 0.749. Referring to Taber (2008) mentioned by Chen L. H. (2008), a Cronbach alpha value of 0.60 and above is considered as good for social-science researches. Hence for the present study, the questionnaire developed by the researcher was considered adequate for the study (Table 2).

**Table 2:** Cronbach Alpha score of the questionnaire developed

Cronbach's Alpha	N of Items
0.749	15

To test the first hypothesis i.e., to assess if there is a relationship between gender, tenure and department with work-life balance, Pearson’s correlation analysis was done (Table 3).

**Table 3:** Correlation & ANOVA analysis between gender, tenure, department and Work-life balance

		Gender	Tenure	Department
WLB	Pearson Correlation	-0.112	0.033	0.040
	Sig. (2-tailed)	0.345	0.783	0.736
	F (ANOVA)	0.903	0.076	1.283
	N	73	73	73

The Pearson’s Correlation analysis is calculated at -0.112 states that gender may not be a good predictor to assess Work-life balance. The R-value of 0.112 shows a weak relationship between age and work-life balance for the present sample. Further, the significance value being higher than 0.05, states that there is no significant relationship between Gender and Work-life balance.

Further, the assessment between Tenure and Work-life balance shows a positive correlation between tenure and Work-life balance, indicating that as tenure increases work-life balance may get better too, but the R-value of 0.033 shows a negligible relationship between tenure and Work-life balance for the sample under study. Continuing on the assessment of significance, a p-value of 0.783, clearly indicates no significant relationship between tenure and Work-life balance.

The correlation assessment between department and Work-life balance with a positive R-value of 0.040 states that the department may be considered as a good indicator of Work-life balance, but at the same time shows a very weak correlation of department and Work-life balance for the present sample. The significant value of 0.736 being higher than the  $\alpha$  value of 0.05 clearly shows no significant relationship between department and Work-life balance for the sample under study.

The F value inspects if the variance between means of the variables under study are significantly different. A higher F value indicates a greater difference in the sample response. (Table 3), it is clear that all the variables under study show a mean difference in the response.

Further assessing the strength of association between gender, tenure, department and Work-life balance (Table 4); though none of the variables under study show a significant relationship with Work-life balance, gender tends to shows a higher percentage of influence on Work-life balance followed by department and tenure.

**Table 4:** Percentage of influence of gender, tenure and department

	Gender	Tenure	Department
R <sup>2</sup>	0.013	0.001	0.002
R <sup>2</sup> %	1.3	0.1	0.2

Since the sample was significantly small, a larger sample may differ the outlook of the relationship between gender, tenure and department with Work-life balance in the future. Though an insignificant percentage of influence is noticed between gender on Work-life balance; and though it is shown as not a good predictor for assessment of Work-life balance for the present sample; it may prove to be a good indicator of Work-life balance and may show a significant influence when assessed for a larger population.

Since gender and tenure had just two categories, a Post-Hoc test to identify the difference between the groups would not be established. Levene’s Post-hoc test (Table 5) shows a significant difference in the opinions between respondents from IT and Engineering departments and IT & Finance departments. But since Department hasn’t shown to have a significant relationship with work-life balance, the significant difference does not make much impact on the study. A larger sample may make difference in the observations in further research.

**Table 5:** Levene’s Post Host Test

Dependent Variable: Work-life Balance		
LSD		
Department		Sig.
HR	Engineering	0.326
	IT	0.128
	Finance	0.347
	Marketing	0.689
	Medical	0.504
Engineering	HR	0.326

	IT	0.045
	Finance	0.777
	Marketing	0.276
	Medical	0.988
IT	HR	0.128
	Engineering	0.045
	Finance	0.035
	Marketing	0.387
	Medical	0.133
Finance	HR	0.347
	Engineering	0.777
	IT	0.035
	Marketing	0.309
	Medical	0.835
Marketing	HR	0.689
	Engineering	0.276
	IT	0.387
	Finance	0.309
	Medical	0.404
Medical	HR	0.504
	Engineering	0.988
	IT	0.133
	Finance	0.835
	Marketing	0.404

## VI. Discussion & Conclusion:

Since the study is a pilot study of ongoing research, the sample size was limited. The variables like gender, tenure and department did not show significant influence on work-life balance for the given sample, but the results may change if larger data is considered for the study. The studies of researchers like Ayyagari, R. (2007), Agota Giedrė Raišienė, Steponas Jonušauskas (2013) and Barber & Jenkins (2014) clearly show the direct influence of technological interference on personal lives of individuals be on family or health. Thus, a more holistic approach to the study of the influence of technology on work-life balance is necessary.

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