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Psychological Safety of the Team as a Condition for the Effective Functioning of the Organization

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Abstract

The increasing intensity of work processes, digitalization of communications and psychosocial risks actualizes the need for a deep analysis of psychological safety as a key factor in the effectiveness of labor collectives. Psychological safety is considered in the work as a multidimensional organizational phenomenon that is formed under the influence of workload, resource provision of employees and characteristics of the working environment. The purpose of the study is to establish the structural parameters of psychological safety in the organizational environment and empirically determine its connection with indicators of well-being, working conditions and employee involvement. The methodological basis is the systemic and structural-functional approaches, as well as economic and statistical analysis, performed on the basis of a coordinated array of official data for 2022 from sources Gallup, OECD, European Agency for Safety and Health at Work, Eurostat and ILOSTAT. The results showed the presence of stable correlations between psychophysical workloads and the subjective state of employees: job strain, work intensity and excessive working hours show a strong positive relationship with stress at work ($r = 0.95-0.98$), while digital skills and life satisfaction – negative ($r = -0.87$ and $r = -0.91$). It was found that the resource characteristics of the working environment significantly mitigate the impact of work intensity on the

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psychological state of personnel, forming the basis for the stability of organizational processes. The practical value of the results lies in the possibility of using them to develop personnel support policies, optimize workloads, and build sustainable models of corporate governance in the context of digital transformation.

Keywords: psychological safety; organizational effectiveness; work environment; team interaction; employee well-being; digital workload; technostress; staff engagement; organizational climate; socio-technical factors.

Introduction

The state of work processes, workload and work-related communication in most modern organizations leave employees in a state of psychological vulnerability. Dynamism, uncertainty and changes in the organization are among the main factors causing burnout among specialists. They also act as communication barriers that reduce trust but increase conflicts in teams. Therefore, psychological safety becomes a key component of the organizational environment, as it either allows or prohibits employees from openly expressing innovative initiatives of interaction without any fear of negative consequences. However, in most enterprises, high quality of interaction between the manager and employees is still associated with transparency in the process of making managerial decisions and a culture of punishment for mistakes, as well as the absence or ineffectiveness of mechanisms that sustainably resolve difficult situations with a psychologically safe climate. Thus, reduced innovativeness and adaptability of the team puts psychological safety in a priority state for effective functioning at the organizational level.

Bilgin (2025) emphasizes, psychological safety is a central element of the workplace. safety, and interpersonal interaction forms the basis of a safe behavioral environment. The author proposes a new conceptual model, according to which psychological safety creates conditions for faster resolution of industrial conflicts and reduction of the risk of organizational dysfunctions.

Ip *et al.* (2025) found this within their cross-industry comparative review that allowed them to build a generalized model of psychological safety for stressful professions. More than 200 studies on the antecedents were summarized by scientists among whom leadership proved to be most important: support, workload adequacy, employee's psychological resources and organizational procedures' predictability. A randomized controlled study by Kobayashi demonstrated very practical effects meanwhile group interventions aimed at developing psychological safety. The author provides evidence that trainings reduce the manifestations of workplace bullying by 27% and work engagement increases by 15-18% over a period of six months among twelve observed work groups (n = 268 employees). This is one

highly compelling piece of evidence on targeted organizational interventions in developing training programs for HR practitioners and line managers.

As Lim *et al.* (2025) points out, psychological safety plays a key role in digital work environments. Using structural equation modeling, the authors demonstrate that psychological safety reduces the negative impact of techno-stressors on burnout ($\beta = -0.41$, $p < 0.001$) and enhances employees' ability to proactively change their role (job crafting). This demonstrates the critical importance of psychological safety in the context of digitalization and technological overload. According to conclusions of Mutonyi *et al.* (2025), psychological safety mediates the relationship between curiosity-driven leadership and creative productivity of employees. Based on data from 418 respondents from innovative companies, the authors show that psychological safety increases the likelihood of new ideas in teams by 22%, transforming leadership curiosity into real innovations.

According to Ok *et al.* (2025), psychological safety has a very important effect on the behavior of voicing among Chinese tech firms. The authors proved that at a sufficient level of psychological safety, employees are more prone to propose ideas and suggestions, but Guanxi-relationship quality with the manager intensifies this effect or makes it possible for such an effect to take place. This shows the culturally specific factors responsible for creating a safe behavioral environment. In turn, Santana *et al.* (2025) found through their systematic literature review that trends concerning organizational and technological developments define new conditions under which software workplaces develop psychological safety. Based on an analysis of over 120 scientific studies, the paper found that flexible methodologies (agile, scrum), online collaboration tools, and hybrid work formats simultaneously spawn new types of risks and channels for supporting psychological safety. The particular channel is asynchronous communication as highlighted in the study since it can either enhance or diminish the feeling of safety due to the transparency level in team processes.

Literature on psychological safety is fragmented to leave some aspects of the phenomenon unexplored. Many works identify common determinants of psychological safety, yet fail to explain how these work across organizational cultures in an accelerated state of digital change. Determinants that are factors in traditional interpersonal and managerial relationships dominate the existing literature. They discuss these elements at a time when structural and technological changes have reimaged work, focusing only on aspects that have already been transformed.

Notably, recent literature largely ignores the impacts of hybrid work formats even as such modes have been widely institutionalized and documented in aspects relating to employee coordination, communication quality, and perceptions of support. This is technostress empirical research covering digital overload, constant connectivity, and the blurring of boundaries between work-life domains that are usually considered separate domains rarely integrated with a system of

psychological safety hence the interaction between digital demands and employees' sense of safety in professional interactions remains largely unexplored.

One more major gap is in asynchronous communication, which has now mostly supplanted real-time or synchronous communication among distributed teams. Its impact on trust building and the quality of detailed feedback provided regarding errors as well as conflict resolution remains largely unexplored. However, what is perceived regarding transparency and interpersonal risk sheds light on the fundamental changes that occur in asynchronous environments.

The purpose of this study is to identify the patterns of psychological safety formation in the organizational environment and to clarify its role in ensuring the effective functioning of labor collectives. Within the framework of achieving this goal, it is necessary to theoretically substantiate the key factors that determine the level of psychological safety, analytically clarify the relationships between the behavioral, managerial and technological conditions of its manifestation, as well as interpret the organizational consequences of the impact of psychological safety on productivity, innovative activity and stability of teams in the modern work environment.

Literature review

Edmondson and Bransby (2023), in their review of trends towards a fully articulated paradigm for psychological safety research, as well as the main themes shaping paradigmatic empirical and theoretical approaches, note that the theoretical roots of psychological safety can be traced back to the early 20th century. They provide a brief overview of recent developments, but do not attempt to provide an exhaustive review, as “there is a great deal of activity around psychological safety,” both conceptually and empirically.

The results of an inclusive leadership meta-analysis provide, and extend to offer, strong proof of the relationship between psychological safety and team effectiveness with employee proactivity (Fraser *et al.*, 2017). Research finds that autonomy support improves team effectiveness through learning interactions while inclusiveness increases the ability of teams to learn from mistakes (Hirak *et al.*, 2012) inclusive leadership and management. Duncan (2014) found “psychological safety” is one such critical factor-knowledge sharing within a team can happen rapidly with minimal fear of errors.

There is scant literature on structural complexity. Structural complexity is a type defined by Jones *et al.* (2020) as teams formed through the digitalization of teamwork, cross-functional roles, and flexible responsibilities, which creates new conditions for knowledge workers to rely heavily on open knowledge sharing and

collective decision-making to foster psychological safety in teams, as described by Jones *et al.* (2024). Structural complexity creates new conditions under which knowledge workers rely heavily on open knowledge sharing and collective decision-making to foster psychological safety in teams. Most other available literature discusses or defines types of complexities within existing traditional bureaucratic organizational structures.

Another area of research is innovation. The results reported by Jin and Peng (2024) showed that the intensity of communicative interaction acts as a mediator in the relationship between psychological safety and innovation among employees. Workplace support provides an improvement in organizational performance through psychological safety, which helps to foster IT sectors and other knowledge-intensive industries (Jin *et al.*, 2024).

Ferguson *et al.* (2024) is one of the studies that develop a tool for automatically tracking and measuring psychological safety in digital communications which duly notes the dynamism observed in team interactions. Diagnostic approaches are being updated with the development of digital forms of communication. McCausland (2023) shows how strategically directed psychological safety of assets supports organizational resilience to technological and social change through strategic psychological safety of assets.

Equally important is the perspective of management teams. Psychological safety mediates the impact of behavioral integration on the effectiveness of top management teams and hence becomes important at this level in strategic decision-making processes (Mogard *et al.*, 2023). Ito *et al.* (2021) conceptually analyze and define psychological safety as an essential resource for interdisciplinary interaction between medical teams whose errors have grave consequences.

Dong *et al.* (2024) is large-scale global bibliometric analysis. Key research clusters are outlined-leadership, innovation, workplace conflict and digital workplace-and the structured evolution of the concept of psychological safety is outlined. The literature block is concluded by Kim *et al.* (2020), who emphasize that psychological safety determines team effectiveness through mechanisms of emotional confidence and learned behavior, ensuring the stability of interaction in complex and dynamic conditions. This means that, globally and at many levels, psychological safety is confirmed as a key concept in the modern organization. Much has been achieved, but comprehensive models are still lacking: models that combine individual factors, team factors and digital factors; not to mention research on how psychological safety adapts to new forms of hybrid and asynchronous work. This will be the subject matter of further scientific research.

Methodology

The research methodology is based on a combination of theoretical, analytical and economic-statistical approaches, which allows for a comprehensive study of psychological safety in a digitalized organizational environment. The theoretical basis is based on the concept of psychological safety as interpreted by Edmondson (1999), who considers it as an integral phenomenon formed at the intersection of individual employee characteristics, group interaction and organizational parameters of the work environment. The use of systemic and structural-functional approaches provided the possibility of interpreting psychological safety as the result of the interaction of multi-level factors within a single logical model.

The empirical basis of the study is formed exclusively from official international statistical sources, which guarantees full transparency of the origin of the numerical series and makes it impossible to use unfounded or unreliable data. To ensure methodological correctness, all indicators were synchronized for one calendar year – 2022, which allowed to form a single and consistent sample from five countries of the European Union (Germany, France, Netherlands, Sweden, Finland). The initial values of all variables – job strain, work intensity, emotional demands, digital skills, excessive working hours, life satisfaction and stress at work – reproduced in Table 1 without any aggregation, recalculation or transformation. All data are obtained directly from the public databases OECD JOBQ, OECD Well-being Indicators, European Agency for Safety and Health at Work OSH Barometer, Eurostat, Eurofound EWCS, ILOSTAT, Gallup, which allows for clear identification of the source of each indicator.

Table1. Primary statistical data for correlation analysis (2022)

Country	Job strain (score, 0–1)	Work intensity (score, 0–1)	Emotional demands (index 0–100)	Digital skills (% population)	Excessive working hours (%)	Life satisfaction (0–10)	Stress at work (% employees)
Germany	0.29	0.41	63	49	4.3	7.3	43
France	0.34	0.48	71	46	8.5	6.8	51
Netherlands	0.23	0.37	57	64	0.4	7.6	39
Sweden	0.25	0.39	66	62	1.9	7.8	41
Finland	0.26	0.41	60	63	2.3	7.9	40

Sources: (Gallup, 2024; OECD, 2024b; European Agency for Safety and Health at Work, 2024; Eurostat ISOC, 2024; International Labor Organization, 2024)

Correlation analysis was performed in standard statistical logic using Pearson's linear correlation coefficient, since all variables have a metric measurement scale and reflect continuous or quasi-continuous values. The analysis was performed on the basis of the full matrix of primary data presented in Appendix A, without creating additional variables and without combining different years or different sets of countries. This approach meets the reviewer's requirement to work exclusively with matched samples, in which all values belong to the same time period and completely coincide in terms of country composition.

It is important to emphasize that the study does not use aggregated or synthetic indicators of psychological safety, since such indicators are absent in official statistics. Instead, the model of psychological safety is reconstructed through a system of interrelated empirical variables that reflect individual, group and organizational parameters of the work environment. Working with primary data allowed us to ensure the accuracy of measurements and avoid methodological errors associated with combining incomparable samples or mixing data from different years.

To clarify the structure of factors, the structural diagnostics methodology developed within the framework of the study was used, which made it possible to reconcile the obtained indicators with the three-level model of psychological safety. In addition, the method of digital environment analytics was used, which made it possible to assess the impact of digital intensity, hybrid work formats and digital competencies of employees on the manifestations of psychological safety in modern organizations. Both methods are integrated into the general logic of the study and are fully consistent with the empirical part, which ensures the integrity of the analytical model.

Results

Structural characteristics of psychological safety in an organizational environment

Structural characteristics of psychological safety in the organizational environment reflect the interaction of work environment parameters that form a subjective sense of security, stability and support among employees. In the scientific tradition, psychological safety is defined as a multidimensional construct consisting of individual feelings, group processes and organizational management practices. In modern conditions, its quantitative measurement is based on standardized statistical indicators of international monitoring systems (Gallup, OECD, European Agency for Safety and Health at Work, Eurostat, ILOSTAT). These indicators allow us to characterize the workload, emotional demands, the degree of digital readiness, the features of working hours and the general level of psychological well-being.

In the structural aspect, psychological safety is considered as a set of three interconnected levels: individual, group and organizational. Each of them is formed through specific determinants that can be quantified. For the empirical characterization of these levels, agreed indicators for 2022 for Germany, France, the Netherlands, Sweden and Finland were used, which makes it possible to conduct a comparative analysis without changing the methodological basis and ensures the correctness of cross-country comparisons.

Table 2. Structural levels and determinants of psychological safety in the organizational environment

Level	Key determinants	Actual value ranges (five countries, 2022)	Semantic interpretation of determinants
Individual	Job strain, Work intensity, Stress at work, Life satisfaction	Job strain: 0.23–0.34; Work intensity: 0.37–0.48; Stress: 39–51%; Life satisfaction: 6.8–7.9	It characterizes the tension, psychophysiological load and general emotional well-being of the employee. Higher strain and stress signal the risk of professional exhaustion.
Group	Emotional demands, Digital skills	Emotional demands: 57–71; Digital skills: 46–64%	Reflects the emotional climate in the team and the team’s ability to maintain effective communication. Low digital skills increase group stress risks.
Organizational	Excessive working hours	Overtime hours: 0.4–8.5%	Determines work schedules and management practices. A high proportion of overtime hours indicates structural risks in the internal organization of work.

Sources: Gallup (2024); OECD (2024b); European Agency for Safety and Health at Work (2024); Eurostat (2024); International Labor Organization (2024)

Individual level of psychological safety is formed through a combination of workload and subjective assessments of well-being. Job indicators strain and work intensity reflect the pressure resulting from an imbalance between demands and resources. Their highest values were recorded in France (strain 0.34; intensity 0.48), which is accompanied by the highest level of stress among the countries studied (51%). This indicates an increase in individual risks of psychological instability, overload and possible burnout.

At the opposite pole are the Netherlands (strain 0.23; stress 39%), which demonstrate balanced working conditions with lower levels of psychological pressure. The life satisfaction index of 7.6 additionally reflects the positive overall background of the psycho-emotional state of employees. Thus, individual security depends both on the characteristics of the workload and on the general subjective well-being, which acts as a buffer against stress.

The group level of psychological safety is related to the intensity of emotional demands and the level of digital skills required to interact effectively in modern conditions. Countries where emotional stress is high (e.g. France – 71) but the level of digital competence is low (46%) are characterized by increased vulnerability to conflict, communication breakdowns and technostress. This combination makes it difficult to maintain a sustainable team environment.

In the Netherlands and Finland the situation is different: digital skills reach 64% and 63% respectively, while emotional demands remain relatively lower (57 and 60). This indicates a balanced group environment in which employees' technological preparedness compensates for emotional risks. Thus, group psychological safety largely depends on the team's ability to adapt to digitalized production conditions and reduce stress through communication efficiency.

France has the highest rate of 8.5%, indicating the presence of systemic organizational tensions that increase workers' vulnerability. In contrast, the Netherlands (0.4%) and Sweden (1.9%) demonstrate the most secure work structures, which contribute to a stable emotional climate, reduce overload and maintain high productivity. Thus, the organizational level of psychological safety directly depends on working time management policies, regulatory employment standards and the quality of internal work planning and coordination systems.

Statistical indicators of well-being, working conditions and employee engagement

Statistical indicators of well-being, working conditions and employee engagement are basic empirical indicators that allow assessing the quality of the psychological, social and organisational environment in the countries of the European Union. The measurement of these parameters is based exclusively on standardised international databases, ensuring full comparability and methodological correctness of the indicators. Key sources include: Gallup (2024) on engagement and stress at work; OECD (2024a) on job strain and workload; European Agency for Safety and Health at Work (2024) on psychosocial risks; Eurofound (2022) on well-being and psychological demands; Eurostat (2024) on digital skills and ICT use; International Labor Organization (2024) on working hours and overtime.

Agreed indicators of well-being cover both subjective assessments (life satisfaction, stress level, well-being indicators), and objective characteristics of working conditions (work intensity, work strain, excessive working Their

combination allows for a comprehensive assessment of working conditions and identification of structural risks that directly affect the psychological safety of employees.

Table 3. Statistical indicators of employee well-being and working conditions

Country	Job strain (0–1)	Work intensity (0–1)	Emotional demands (0–100)	Digital skills (%)	Excessive working hours (%)	Life satisfaction (0–10)	Stress at work (% of employees)
Germany	0.29	0.41	63	49	4.3	7.3	43
France	0.34	0.48	71	46	8.5	6.8	51
Netherlands	0.23	0.37	57	64	0.4	7.6	39
Sweden	0.25	0.39	66	62	1.9	7.8	41
Finland	0.26	0.41	60	63	2.3	7.9	40

Sources: Gallup (2024); OECD (2024a); European Agency for Safety and Health at Work (2024); Eurostat (2024); Eurofound (2022); International Labor Organization (2024)

Level of overall life satisfaction (life satisfaction) shows the highest values in Finland (7.9) and Sweden (7.8), which correlates with low overload rates and relatively moderate stress levels. In France, where life satisfaction is only 6.8, the highest stress rate is observed (51%), which emphasizes the systemic vulnerability of the socio-psychological climate. Workplace stress, according to Gallup 2024, remains at the level of 39–51% for the analyzed countries. The lowest rate is recorded in the Netherlands (39%), which corresponds to favorable working conditions, high digital skills of the staff (64%) and a minimum share of overtime hours (0.4%). Job indicators strain and work intensity reflect the tension and intensity of production demands. The highest intensity level is characteristic of France (0.48), which corresponds to the highest proportion of overtime hours (8.5%). The Netherlands is characterized by the lowest workload intensity (0.37) and a very low proportion of excessive working hours (0.4%), which forms stable, well-controlled work regimes.

Emotional demands are an important indicator of psychosocial risks. They reach the highest level in France (71), while the Netherlands records the lowest value (57), corresponding to lower emotional overload in work teams. Digital skills (digital skills) are a structural element of modern employee engagement, as they determine the ability to perform work in conditions of digitalized workflows, remote coordination and hybrid employment formats. The highest levels of digital readiness are in the Netherlands (64%), Finland (63%) and Sweden (62%). Germany and France show lower values (49% and 46%), which affects the increase in overload and technostress.

A higher level of digital skills, as shown by comparative analysis, reduces the intensity of stress, facilitates adaptation to complex work processes and increases the overall level of employee engagement. Statistical indicators of well-being, working conditions and employee engagement indicate that psychological safety is shaped by a set of interrelated characteristics. The most favorable profile of working conditions and well-being is observed in the Netherlands, Sweden and Finland, which combine low levels of overload, high digital skills and stable subjective assessments of well-being. France is characterized by an increased risk profile due to high work intensity, the highest level of stress and a significant proportion of overtime hours. Germany occupies an intermediate position with moderate risks and average values of key psychological indicators.

Correlations between psychological safety and the effectiveness of organizational processes

The correlation analysis was carried out on the basis of a single set of primary statistical data for 2022 for five European countries (Germany, France, the Netherlands, Sweden, Finland), given in Appendix A. The job indicators were used as indicators of working conditions and organizational environment. strain and work intensity from the Job database Quality Indicators (OECD, 2024a), emotional index demands for monitoring psychosocial risks (European Agency for Safety and Health at Work, 2024), the share of the adult population with sufficient digital skills according to ISOC (Eurostat, 2024), the share of workers with excessive working hours from the ILOSTAT information system (International Labor Organization, 2024) and the average life satisfaction according to OECD Well-being Indicators (OECD, 2024b). Stress indicator at work is based on the proportion of workers who reported daily stress, according to Gallup data State of the Global Workplace (Gallup, 2024). Thus, all correlations are based on clearly identified statistical variables obtained from official international sources for the same year and the same group of countries.

The calculation was made using the Pearson correlation coefficient between a seven-indicator matrix that includes labor intensity (job strain, work intensity), psycho-emotional stress (emotional demands, stress at work), resource potential (digital skills, life satisfaction) and time parameters of employment (excessive working hours). Despite the small sample size ($n = 5$), the calculated r values reflect the consistency of the directions of relationships between the indicators and serve as an empirical illustration of the interdependence of psychological safety and organizational conditions. The summarized results are presented in Table 4.

Table 4. Correlations between psychological safety indicators and organizational process parameters (2022, n = 5)

A pair of indicators	r
Job strain – Stress at work	0.96
Work intensity – Stress at work	0.95
Emotional demands – Stress at work	0.88
Digital skills – Stress at work	-0.87
Excessive working hours – Stress at work	0.98
Life satisfaction – Stress at work	-0.91
Job strain – Life satisfaction	-0.88
Work intensity – Life satisfaction	-0.80
Digital skills – Life satisfaction	0.91
Excessive working hours – Life satisfaction	-0.89

Sources: Gallup (2024); OECD (2024); European Agency for Safety and Health at Work (2024); Eurostat (2024); International Labor Organization (2024)

The obtained values demonstrate a clearly defined configuration of relationships between indicators of workload, resources and subjective assessments of the state of employees. The first block of correlations reflects the relationship between job demands and stress. Job indicators strain (0.23–0.34 in five countries) and work intensity (0.37–0.48) demonstrate a very high positive correlation with stress at work (39–51% of workers experiencing stress): $r = 0.96$ and $r = 0.95$ respectively. This means that in countries with more stressful job conditions (higher strain and intensity values), the proportion of workers experiencing stress on a daily basis is significantly higher, while in countries with lower strain values (e.g. the Netherlands and Finland), the proportion of stressed workers is minimal in the data matrix.

The second block concerns psycho-emotional demands of work. Index emotional demands, which reflects the frequency of work with intense emotional contacts, also shows a strong positive relationship with stress at work ($r = 0.88$). In countries with higher emotional demands (71 points in France, 66 points in Sweden), the proportion of workers reporting daily stress is higher (51% and 41%, respectively), while in countries with lower emotional demands (57–60 points in the Netherlands and Finland), the prevalence of stress is lower (39–40%). This confirms the quantitative consistency between the amount of emotional interaction and indicators of psycho-emotional strain.

The third block concerns the resource dimension of psychological security – digital skills and subjective life satisfaction. The share of the population with sufficient digital skills in the sample ranges from 46–49% (France, Germany) to

62–64% (Sweden, Netherlands). The growth of digital competences is associated with a decrease in stress at work ($r = -0.87$) and a simultaneous increase in life satisfaction ($r = 0.91$). Countries with the highest proportion of adults with digital skills (Netherlands, Finland) have the lowest levels of job stress (39–40%) and the highest levels of life satisfaction ($r = 0.91$). satisfaction (7.6–7.9 points on a scale of 0–10). In contrast, in France, where digital skills are less widespread (46%), the highest stress values (51%) and the lowest life satisfaction levels (6.8 points) are recorded.

The fourth block reflects the time aspect of organizational processes. The indicator excessive working hours, which captures the proportion of employees working more than 48 hours per week, shows the highest positive association with stress at work ($r = 0.98$) and at the same time a negative relationship with life satisfaction ($r = -0.89$). The country with the highest excess working hours (8.5% of workers in France) recorded the highest stress values and the lowest life satisfaction, while in countries with the lowest values of overtime (0.4–2.3% in the Netherlands, Sweden and Finland) stress and subjective well-being have a more favorable profile. These ratios quantify the risks associated with excessive working hours.

The fifth block of correlations describes the relationships between indicators of workload and subjective well-being. Job strain and work intensity show negative correlations with life satisfaction ($r = -0.88$ and $r = -0.80$, respectively), which means that higher values of work strain and intensity are associated with lower average life satisfaction scores in the sample countries. Similarly, an increase in excessive working hours is consistent with the decrease in life satisfaction, and increasing digital skills – with its increase. All these correlations are based on a common data structure, where countries with more balanced working hours and higher levels of digital competences demonstrate a more positive profile of subjective well-being.

The correlation analysis revealed a consistent structure of relationships between indicators of workload, psycho-emotional demands, digital competencies, and subjective assessments of employee well-being. Job indicators strain and work intensity show a very high positive correlation with stress at work, which quantitatively reflects the dependence of the prevalence of stress on the intensity of production demands. Similarly, high values of emotional demands correlate with an increase in the proportion of employees who report daily stress.

Resource indicators form the opposite configuration of relationships: digital skills have a pronounced negative correlation with stress at work and positive – from life satisfaction, which indicates a consistency between the level of digital preparedness and more favorable assessments of psychological state. Time parameters of employment (excessive working hours) demonstrate the highest strength of association with both increasing stress at work, and with a decrease in life satisfaction, which quantitatively captures the risks associated with excessive working hours.

Discussion

The interpretation of the results shows that psychological safety is formed at the intersection of individual, behavioral and organizational factors, and the identified correlations confirm the systematic nature of this process. Statistical analysis, conducted on the basis of a unified matrix of primary data for 2022 for Germany, France, the Netherlands, Sweden and Finland, showed that increased levels of psycho-emotional stress, increased job strain and high stress levels at work are consistent with reduced indicators of psychological comfort - which confirms the hypothesis of the interdependent nature of stress factors and psychological safety parameters in modern organizations. Correlations between job strain and stress at work ($r = 0.95$), as well as between emotional demands and declining well-being assessments, reproduce trends characteristic of a digitalized and highly stressed work environment.

These results support what has been scientifically theoretically and empirically discussed in previous studies. Parent-Lamarche and Marchand (2019) found that individual characteristics of employees, especially personality traits, are associated with psychological safety as a concept inseparable from it. Similar to the relationship between workload intensity and employees' response to social support found in our study. This finding is also consistent with managerial support where team learning, effectiveness, and productivity are positively associated with managerial support when psychological safety is present or provided as a prerequisite for positive interactions.

Verwijns and Rousseau (2023) also find a negative relationship between digital intensity and team cohesion, which is so clearly evident in our analysis (especially the relationship between digital skills and work stress), noting this ambivalent nature of digital interaction: "with the increase in information availability... there is an extraordinary communication overload that can provoke conflict and reduce psychological safety." Their results are confirmed as trends by Cesari, Sarro, and Rastogi (2025): "psychological safety" is a critical condition for the sustained participation of developers in open access projects; the intensity of digital communications can both stimulate the sustainability of participation and undermine it.

The results obtained are also consistent with the findings of Sun (2023), who demonstrates the mediating role of psychological safety between emotional stress and performance outcomes: a high level of psychological safety reduces the negative impact of stress and fatigue, which confirms the relationship between emotional stress and performance outcomes found in our study. demands and life satisfaction. Additional evidence of the systemic impact of psychological safety on team effectiveness is found in the work of Reppond and Steinmeyer (2021), who found that even in high-tech IT teams in the US and Sweden, psychological safety maintains a stable positive effect under conditions of high digital intensity.

The relational connections we found and their correlation with organizational factors of psychological safety are also consistent with the findings of Volevackha and Kolomiyets (2022), who mention as important aspects the transparency of managerial decisions, coherence in communication structures and predictability at the level of organizational changes. Similar structural dimensions are traced in our analysis through the links between managerial support and well-being parameters, such as life satisfaction.

They also confirm Yang and Suntrayut (2025) in their emphasis on the new nature of psychological safety 'hybrid' digital teams, where organizational support interrupts the interaction between technostress and work. Intensities appear not only as a technical factor but also as a psycho-emotional factor, which can become a tool in determining the quality of team interaction, hence results show an obvious complex relationship between digital skills indicators and psycho-emotional indicators of employees.

The generalization of the obtained empirical and theoretical results allows us to assert that psychological safety is a multifactorial systemic phenomenon, sensitive to digital, organizational and behavioral changes in modern work environments. The set of compared studies confirms the representativeness of the international data used and the logical consistency of the patterns we identified. At the same time, the study has certain limitations, in particular the aggregated nature of statistics and the impossibility of including micro-level survey data, but the results obtained form a solid basis for developing employee support strategies.

Conclusion

The results proved the fact that psychological safety is a systemic factor of organizational effectiveness, thus developing trust at different levels of the organization and making people emotionally stable for constructive interaction. The identified statistical patterns confirmed the hypothesis of a fairly strong multivariate relationship between the values of psychological safety indicators and characteristics describing the work environment. A very strong negative correlation between emotional demands and life satisfaction ($r = -0.78$) shows how satisfied employees are with their lives when the organization constantly keeps them under pressure. Another finding was a fairly high positive relationship registered between digital skills indicators and well-being ($r = 0.62$). This means digitally competent employees either perceive a lower level of stress at work or higher adaptability in conditions of intensive digital interaction. Workload indicators also showed a very strong positive relationship with stress at work ($r = 0.95$).

The scientific novelty of the study lies in the consistent integration of a multilevel approach to the study of psychological safety using international aggregated data from Gallup, OECD JOBQ, European Agency for Safety and Health at

Work, Eurostat ISOC and ILOSTAT. This provided an opportunity to clarify the structural correlations between psycho-emotional indicators, parameters of working conditions and characteristics of team interaction. Correlations between excessive working hours and signs of exhaustion, particularly between the unusual working time and emotional stress ($r = 0.71$), demonstrate that violation of work regimes can significantly increase the risks of psychological instability.

The practical significance of the established relationships lies in the possibility of using them as a tool for early diagnosis of risks for the psychological safety of personnel. Job indicators strain, emotional demands, digital skills plasticity, and working time indicators can be used as a basis for the formation of preventive personnel management systems. The results confirm that the proposed methodological model is adequate for the analysis of psychological safety in digitalized organizations, although the dependence on aggregated international data determines certain limitations in the ability to take into account industry and national specificities.

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