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INTEGRATION OF THE PSYCHOSOCIAL DIMENSION FOR A NEW PERFORMANCE EVALUATION MODEL

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Abstract: Traditional performance evaluations are insufficient in the face of the challenges of the digital work environment, characterized by automation, remote work, and new psychosocial dynamics. The aim of this article is to substantiate the importance of incorporating a psychosocial-technological dimension into a performance evaluation model that encompasses elements related to the intensive use and adaptation of work scenarios, particularly when advanced technology, characteristic of Industry 4.0, is employed. A mixed approach and a descriptive-propositional analysis were used, supported by a critical theoretical review and the exploration of existing psychometric scales. Six key indicators were defined: digital resilience, adaptation to virtual environments, technostress management, digitalized social support, virtual emotional intelligence, and tolerance to technological frustration. Observable criteria, evaluation levels, and desirable parameters were established for each one. Likewise, their correspondence with eleven recognized scales, such as CD-RISC, PSS, and TEI, was analyzed, identifying partial coincidences and relevant gaps. The findings indicate that current odels overlook the psychosocial effects of technology-mediated work, thereby limiting their diagnostic and ethical utility. It is concluded that incorporating this dimension is crucial to building instruments that are representative, sensitive, and adapted to the complexity of performance in the digital age.

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Introduction

Performance appraisals have long been a key tool in talent management, allowing results to be visualized, development potential to be diagnosed, as well as relationships between employees and managers to be strengthened. Traditionally, these appraisals have been based on quantitative indicators, such as goal achievement or production levels, and structured in formal models, including 360° appraisals or competency-based assessments. However, despite their methodological advances, they continue to focus primarily on observable metrics, overlooking the relational and emotional factors that actually determine performance (Aguinis, 2013; DeNisi & Murphy, 2017).

While automation and artificial intelligence have undeniably transformed tasks, supervisory mechanisms, and interaction patterns, these changes have also exposed workers to new psychosocial conditions, such as overload, insecurity, and technosurveillance (Ragu-Nathan et al., 2008; Tarafdar et al., 2014). The contradiction is evident: digital tools designed to improve efficiency also generate anxiety, fatigue, and isolation, creating a persistent tension between productivity and mental well-being.

This study presents a novel approach to performance assessment that explicitly incorporates a psychosocial-technological dimension, designed to interpret how workers experience and adapt to digitalized work contexts. The proposal goes beyond conventional data-driven methods, seeking to integrate objective performance indicators with emotional, cognitive, and social dynamics. The goal is to develop an evaluative framework that complements human and technological aspects, rather than competing with them, providing organizations with a more ethical, preventive, and adaptive perspective on performance in the digital age.

Theoretical foundations

Performance evaluation: evolution and trends

Traditional performance evaluation models have played a fundamental role in organizational management, are based on functionalist approaches in which individual performance is aligned with the organization's strategic goals. Their purpose is to establish a formal system for making achievements visible and providing feedback on performance. The models have promoted tools such as goal-based evaluation, 360-degree feedback, and competency-based approaches, each with its own logic and scope (Aguinis, 2013; Cardy & Leonard, 2014).

Evaluation by objectives measures the degree of compliance with previously established goals; 360° assessment tries to overcome individual biases by incorporating multiple sources of superior feedback: peers, subordinates, and even clients; the competency-based approach evaluates not only what a person achieves, but how they achieve it, integrating knowledge, skills, and attitudes relevant to each role. Each model seeks to capture different performance dimensions, although they all start from the same assumption: performance can be objectively measured through observable and replicable indicators (Bracken et al., 2001; Spencer & Spencer, 1993).

Nevertheless, this instrumental logic has been the subject of criticism as these models tend to privilege technical variables such as productivity, time management, or leadership, overlooking subjective or contextual aspects that also have a significant influence on performance. Emotional state, the quality of interpersonal relationships, and personal context are factors that modulate daily performance, and ignoring them leads to reductionist evaluations that fail to capture the complexity of human behavior in today's work environments (DeNisi & Murphy, 2017; Sonnentag & Frese, 2012; Fletcher, 2001).

New technologies and their effects on work

The prevailing technological revolution is driving more dynamic and data-centric schemes, in which feedback is no longer episodic but continuous and automated, prioritizing operational traceability over human links and reconfiguring supervision processes. These changes require a critical review of traditional assessment models, which may be insufficient to capture the new realities of digital work (Brynjolfsson & McAfee, 2017; Morgeson et al., 2022).

Nonetheless, permanent feedback and algorithmic surveillance can lead to cognitive fatigue, anxiety, and constant emotional pressure, negatively impacting the well-being of workers. Even though technologies promise efficiency, when their implementation does not consider the human implications, they can lead to dynamics of psychological exhaustion or work isolation (Moore, 2018; Sewell & Barker, 2006).

Five factors, referred to as techno-stressors, have been identified, explaining how certain technology characteristics generate tension in workers (Ragu-Nathan et al., 2008). For his part, Alkahayyal (2024) confirms this original structure that Ragu describes, and situates it as a framework for understanding the psychosocial impact of the digitization of work:

1. Techno-overload: technology requires workers to do more tasks in less time or with greater intensity.
2. Techno-invasion: the intrusion of work into personal life as it allows us to be permanently connected.
3. Techno-complexity: technological tools are challenging to use, which generates frustration and a greater need for learning.
4. Techno-insecurity: the perception that it can replace the worker or make him or her appear less competent.
5. Techno-uncertainty: constant changes or updates that generate confusion or resistance.

Empirical studies have validated these effects, such as techno-overload and techno-invasion, and demonstrated their significant association with decreased productivity, particularly among women and individuals with lower levels of education. Technostress has been found to be associated with decreased job satisfaction, increased burnout, and a loss of digital self-efficacy, particularly in contexts involving hybrid or intensive work on digital platforms (La Torre et al., 2020).

Amin et al. (2024) examine the effects of technostress, including dimensions such as techno-overload and techno-invasion. Techno-complexity, techno-insecurity, and techno-uncertainty regarding the productivity of pre-professionals confirm the significant adverse impact.

Generational gap

Incorporating emerging technologies in work environments does not affect all workers uniformly, and the generation gap is a determining factor in understanding this difference. Younger employees, familiar with digital environments from an early age, tend to develop a greater facility in incorporating technological tools into their work routines, which allows them to adapt with less resistance to technological changes and achieve more organic integration in highly digitized contexts (Morris & Venkatesh, 2000). In contrast, recent empirical research suggests that older workers frequently encounter significant barriers to technological adaptation, which can manifest as frustration, anxiety, insecurity, and resistance to change (An et al., 2024; Hong et al., 2025). These barriers are not only associated with chronological age but also with limited prior digital socialization, which negatively affects self-efficacy and willingness to engage with new tools.

For example, An et al. (2024) found that older adults' negative self-perceptions of aging increased their technology anxiety, which in turn undermined digital self-efficacy and their intention to use new digital services, while Hong et al. (2025) showed that older adults' lower motivational initiative and perceived digital capability hinder their integration into AI-mediated work systems. In this way, the lack of digital familiarity emerges as a psychosocial risk factor that directly impacts emotional well-being and the perception of work competence in technologically mediated environments

Psychosocial dimension in workplace contexts

From the perspective of work psychology, the perception of support or a sense of belonging can be a determinant of performance, alongside technical skills and available material resources (Peiró & Rodríguez, 2008). Job demands, such as workload, time pressure, or technological complexity, can lead to burnout if personal resources, including resilience and team support, are not adequately balanced. The model integrates emotional, cognitive, and relational dimensions, making it a key tool for rethinking performance evaluations in technology-mediated contexts (Bakker & Demerouti, 2007).

Psychosocial factors that influence the work experience have been identified, including:

a) Resilience (Galy et al., 2023).
b) Adaptability (Hoang, 2024).
c) Interpersonal relationships (Roellyanti, 2024).
d) Family and social support (Alkhayyal, 2024).
e) Perceived stress (Zhao & Wu, 2024).
f) Emotional intelligence (Edmund et al., 2023).
g) Frustration tolerance (Wang et al., 2024).

Their exclusion from traditional assessment models hinders a comprehensive understanding of performance in digital environments.

Existing instruments measuring psychosocial factors

An in-depth analysis of existing psychometric instruments was conducted to provide points of comparison and evaluate whether they already incorporate this aspect in practice. The summary of the findings is presented in Table 1, which outlines the instrument, its description, field of application, and limitations in relation to the object of study.

Table 1. Psychosocial instruments: description, applications, and limitations

Instrument	What it measures	Applications / context of use	Missing/ limiting factors
Resilience Scale (CD-RISC) (Connor & Davidson, 2003)	Perceived resilience, the ability to overcome adversity	Environments of high demand, crisis, burnout, and labor turnover	Does not integrate technological stressors or digital adaptability; does not contemplate techno--organizational contexts
Perceived Stress Scale (PSS) (Cohen et al., 1983)	Perception of lack of control, overload, and general stress	Identify emotional exhaustion, work-family conflict, and self-efficacy	Evaluates global stress but omits sources linked to automation, digital monitoring, or continuous connectivity
Job Content Questionnaire (JCQ) (Karasek et al., 1998)	Social support, psychological demands, and autonomy	Detect relational climates and quality of work relationships	Designed for traditional work models; limited sensitivity to hybrid, remote, or AI-assisted environments
Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988)	Perceived support from family, friends, others	Measure work-life balance and resilience to burnout	Does not consider virtual interactions or the dilution of social ties in digital workplaces
Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides & Furnham, 2001)	Emotional intelligence traits: empathy, emotional regulation, and relationship management	Studies on leadership, performance, and interpersonal conflicts	Limited capacity to assess emotional intelligence in human--machine or virtual communication contexts

Instrument	What it measures	Applications / context of use	Missing/ limiting factors
Frustration Discomfort Scale (FDS) (Harrington, 2005; Ozer et al., 2012)	Intolerance to emotional distress, need for immediate gratification	Evaluate emotional regulation and frustration in work environments	Does not capture digital impatience or the stress derived from technological failure or system latency
Work Emotional Climate Scale (ECEL) (Peiró & Latorre, 2004)	Predominant emotions in work teams: anxiety, enthusiasm, satisfaction	Group diagnosis of emotional state, organizational well-being	Focuses on collective emotions but lacks items addressing remote teams or digital collaboration climates
Change Adaptability Scale (CAS) (Martin et al., 2005)	Cognitive flexibility, willingness to adapt to organizational change	Contexts of digital transformation, restructuring	Evaluates change in general but not specific adaptation to emerging technologies or AI-driven processes
Sense of Coherence Scale (SOC-13 y SOC-29) (Antonovsky, 1987)	Perception of environment as understandable, manageable, meaningful	It predicts mental health and resilience to stress in demanding work contexts	Limited by its abstract and generalized nature, it does not isolate digital stress or information overload factors
Emotion Regulation Questionnaire (ERQ) (Gross & John, 2003)	Emotional regulation strategies: cognitive reappraisal, expressive suppression	Identify emotional styles and their impact on performance, relationships	Ignores emotional regulation in technology--mediated interactions, like virtual meetings, AI feedback
Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981)	Emotional exhaustion, depersonalization, and low personal fulfillment	Burnout studies in helping health professions	Does not incorporate techno-burnout or digital fatigue; may underestimate exhaustion in virtual or hyperconnected roles

Source: Own study based on research

Research methodology

This study aims to integrate a psychosocial-technological dimension into performance evaluation models by formulating critical indicators that reflect the new demands of the digital work environment. To support this objective, relevant constructs are identified to justify the inclusion of a psychosocial dimension within performance evaluations in technologically mediated contexts.

Preliminary measurement criteria were established based on three core elements: (a) conceptual relevance, grounded in their theoretical consistency within current work scenarios; (b) empirical validation, privileging instruments and models previously applied in studies on psychological adaptation to technological impact; and (c) convergence potential, considering their capacity to align with traditional indicators of organizational evaluation.

The selection of literature and analytical references was guided by the authors' practical experience in applying psychometric instruments within organizational contexts. The experiential criterion enabled the identification of indicators capable of effectively measuring psychosocial responses associated with technological adaptation and work performance.

A mixed-methods approach was applied through a sequential design. The qualitative phase involved constructing an analytical framework grounded in specialized literature to identify conceptual gaps and propose six emerging indicators: digital resilience, adaptation to virtual environments, technostress management, digitalized social support, virtual emotional intelligence, and tolerance to technological frustration. Content analysis and thematic coding techniques were used to categorize theoretical patterns and interpret conceptual intersections among psychological, organizational, and technological constructs. The methodological process was structured into four phases: documentary analysis, establishment of indicator relationships, validation of scales, and construction of the proposed model.

Results

The results derived from the documentary work correspond to a conceptual and non-empirical analysis aimed at identifying the relationship between the reviewed theoretical foundations and the selected measurement instruments. They establish correspondences and contrasts between psychological constructs and traditional components of work performance. Based on this analysis, weaknesses in the existing evaluation model were identified, primarily related to the lack of indicators that consider psychosocial aspects in adapting to technological transformation.

These limitations justify the need to integrate a psychological dimension that complements performance evaluation in organizational contexts influenced by disruptive technologies. For analytical organization, digital tools were employed to categorize indicators, visualize conceptual relationships, and maintain traceability between theoretical constructs and selected psychometric instruments.

Four central arguments were developed that support the need for an integrated dimension:

1. Structural Changes in the Work Environment (Aguinis, 2013)
    a) Digital transformation has radically changed working conditions, displacing classic models focused on face-to-face and direct supervision.
    b) Remote work, collaborative platforms, and automation have broken traditional hierarchical logic.
    c) New dynamics require a rethinking of evaluation systems, which have become obsolete due to decentralization and digital surveillance.
2. Gaps in current assessment models (Bakker & Demerouti, 2007)
    a) Current models continue to operate under outdated assumptions, such as face-to-face supervision and a rigid hierarchical structure.
    b) They ignore contemporary phenomena derived from remote work, such as digital fatigue, hyperconnectivity, and isolation.

   c) This limits the ability to correctly diagnose job performance in complex digital contexts.
3. Urgency of a psychosocial-technological dimension (Tarafdar et al., 2014; Luthans et al., 2007; Zimet et al., 1988)
   a) Technology transforms work but generates emotional and cognitive demands that must be evaluated.
   b) Concepts such as digital resilience or virtual social support cannot be measured with traditional instruments.
   c) It is urgent to integrate a dimension that contemplates new psychosocial challenges derived from the technological environment.
4. From the psychosocial to the psychosocial-technological
   a) Classic psychosocial factors are insufficient to explain performance in deeply digitized contexts.
   b) Indicators that articulate emotional, relational, and adaptive aspects in technology-mediated environments are required.
   c) The new dimension must reflect emerging skills such as digital empathy or adaptation to automation.

Table 2. Indicators of psychosocial dimension for techno-digital contexts

Psychosocial factor	Operational definition	Justification
Digital resilience	Ability to maintain emotional and functional stability in the face of technological change and redefinition of tasks	It assesses an individual's resilience to the volatility of digital environments, enabling them to maintain performance under uncertain conditions
Adaptation to virtual environments	Adaptation to remote work dynamics, asynchronous platforms, and technology-mediated labor relations	Remote work has transformed interaction and organizational structures; therefore, it is essential for functional performance
Technostress management	Level of coping with pressures derived from intensive use of digital tools	It directly impacts health and productivity and thus must be incorporated into performance evaluation
Social support in digital contexts	Perception and availability of emotional and professional support networks in virtual environments	Perceived support influences workplace well-being, but its forms and channels have shifted due to digitalization
Emotional intelligence in virtual interactions	Ability to identify, express, and regulate one´s own and others´ emotions	Virtuality distorts emotional cues, making empathy and affective communication more difficult
Tolerance to technological frustration	Emotional response to technical failures, unexpected changes, and inefficient digital demands	Constant exposure to technical issues generates emotional strain that affects day-to-day performance

Source: Own study based on research

Six key indicators were defined to capture the critical dimensions of well-being and performance in technology-mediated work environments, constructed from the specific tensions identified between psychosocial and digital domains (Table 2).

These factors should not be understood as isolated constructs, but rather as an integrated set that responds to a work reality shaped by new forms of interaction, emerging cognitive demands, and novel psycho-emotional risks.

Definition of measurement criteria

The operationalizing of the six previously defined psychosocial-technological indicators to establish a conceptual and practical foundation for their future measurement. For each indicator, observable behavioral criteria, preliminary rating levels, and desirable parameters in the current digital work context were defined.

Digital resilience

a) Responsiveness to technological interruptions or unexpected changes in digital platforms.
b) Sustained work engagement despite technological uncertainty or system failures.
c) Willingness to relearn automated processes or adopt new digital tools without significant emotional deterioration.

Adaptation to virtual environments

a) A level of autonomy in using collaborative digital platforms.
b) A degree of organization and goal achievement in asynchronous contexts.
c) Ability to establish and maintain effective virtual work relationships.

Technostress management

a) Signs of exhaustion or irritability in digital contexts.
b) Frequency of distraction or loss of focus due to digital stimuli.
c) Use of emotional regulation strategies or healthy disconnection habits.

Social support in digital environments

a) Frequency of contact with peers, leaders, or digital mentors.
b) Perceived trust in these relationships.
c) Participation in collaborative networks or digital support communities.

Emotional intelligence in virtual interactions

a) Ability to interpret tone and emotional intent in messages.
b) Adequate emotional regulation during ambiguous or conflictive digital exchanges.
c) Capacity to establish empathic connections via digital platforms.

Tolerance to technological frustration

a) Reactions to technical errors or unexpected interruptions.
b) Degree of perseverance when facing technological difficulties.
c) Frequency of frustration during digital tasks.

Graphical representation of the scoring system and application Simulation

A graphical tool (Annex 1) represents the low, medium, and high levels of each psychosocial-technological indicator using a 1-10 Likert-type scale. This visual format is based on predefined measurement criteria and aims for objectivity by linking score ranges with observable behaviors. Evaluators are encouraged to use the desirable parameters as a reference to guide scoring decisions.

It is essential to note that the tool (Annex 1) is not a validated instrument, but rather a preliminary proposal to support the future operationalization of the indicators.

Annex 2 presents a simulation assigning hypothetical scores to a worker, generating a control chart interpreted using the proposed standards. This example illustrates how indicators may be applied in digital organizational contexts.

Relationship of indicators with existing measurement instruments

To identify elements already evaluated that could inform a future measurement proposal, a cross-analysis was conducted with eleven validated ones; however, relevant gaps remain, particularly regarding asynchronous adaptation, digital social support quality, and tolerance to technological frustration. These findings confirm the need for a specific diagnostic tool tailored to digital work demands, and support the foundation for its future development.

The findings justify the need to design a specialized psychometric instrument based on six proposed psychosocial-technological indicators; these should not be treated as optional, but as a central dimension for understanding how technology impacts emotional, adaptive, and relational aspects of work. Their integration could enhance traditional performance evaluations by incorporating subjective experiences often overlooked in digital environments.

Although developing an instrument would require adherence to psychometric principles and methodological rigor, it would also ensure internal consistency. Each indicator would be supported by observable criteria and rating scales, offering a comprehensive assessment framework.

Recommendations:

1. Design of a dedicated psychometric battery, specific to digital contexts, integrating the six indicators into a single diagnostic tool.
2. Gradual implementation in real work environments, starting with pilot tests in highly digitalized sectors or hybrid work models.
3. Alignment with human talent management practices, such as digital well-being programs, remote emotional support, training in psycho-emotional competencies, and the development of disconnection policies.

4. Development of intervention protocols, based on measurement results, which enable organizations to act preventively in response to early signs of emotional exhaustion, isolation, or poor digital adaptation.

These results showed the feasibility of integrating the psychosocial-technological dimension into future performance evaluations and propose concrete lines of action for its operationalization, validation, and institutional implementation. This study utilized digital tools to distinguish between the treatment of human capital in traditional performance evaluations and that which is necessary in a stage of constant technological change.

Conclusion

This research confirms that digital transformation has introduced working conditions which traditional performance appraisal models fail to address accurately. Elements such as hyperconnectivity and link virtualization have reshaped how workers express their performance. In this context, approaches that focus solely on observable goal attainment become limited, making it essential to incorporate dimensions that capture the subjective and emotional aspects of the experience.

To propose a psychosocial-technological dimension, a methodological route was developed in four phases, allowing progress from the theoretical analysis of the problem to the formulation of concrete indicators. Observable measurement criteria and assessment levels were established for each indicator, along with their link to existing psychometric scales. While points of agreement were found, notable gaps also emerged, especially concerning asynchronous contexts and digitally mediated links.

This study presents the theoretical and technical construction of a psychosocial-technological dimension, not as a complement, but as an essential component for comprehensively evaluating performance. It is proposed that a diagnostic tool based on these indicators be developed, applied in highly digitized environments, and moved towards ethically responsible methodologies which address emotional well-being and the human sustainability of digital work.

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Authors' Contribution: Briones Martínez was responsible for the documentary research, theoretical development in the field of psychology, and design of the psychosocial measurement instruments. Sierra Segura collaborated on the organization and structuring of the information, as well as the literature review. Dr. Martínez Torres, corresponding author, conceptualized the method, created, and refined the proposed evaluation instruments.

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Conflict of Interest: There is no conflict of interest.

Ethics Declaration: Ethical clearance was not required.

AI Declaration: To provide valid and reliable sources – Scispace; to support the translation to English and Polish – Microsoft translator.

WŁĄCZENIE WYMIARU PSYCHOSPOŁECZNEGO DO NOWEGO MODELU OCENY DZIAŁANIA

Streszczenie: Tradycyjne oceny wydajności są niewystarczające w obliczu wyzwań cyfrowego środowiska pracy, charakteryzującego się automatyzacją, pracą zdalną i nową dynamiką psychospołeczną. Celem niniejszego artykułu jest uzasadnienie znaczenia uwzględnienia wymiaru psychospołeczno-technologicznego w modelu oceny wydajności, który uwzględnia elementy związane z intensywnym wykorzystaniem i adaptacją scenariuszy pracy w warunkach dominacji zaawansowanych technologii, charakterystycznych dla Przemysłu 4.0. Zastosowano podejście mieszane oraz analizę opisowo-propozycjonalną, wsparte krytycznym przeglądem teoretycznym i eksploracją istniejących skal psychometrycznych. Zdefiniowano sześć kluczowych wskaźników: odporność cyfrową, adaptację do środowisk wirtualnych, zarządzanie stresem techno, zdigitalizowane wsparcie społeczne, wirtualną inteligencję emocjonalną i tolerancję na frustrację technologiczną. Dla każdego z nich określono obserwowalne kryteria, poziomy oceny i pożądane parametry. Przeanalizowano również ich zgodność z jedenastoma uznanymi skalami, takimi jak CD-RISC, PSS i TEI, identyfikując częściowe zbieżności i istotne luki. Wyniki pokazują, że obecne modele nie uwzględniają psychospołecznych skutków pracy za pośrednictwem technologii, co ogranicza ich użyteczność diagnostyczną i etyczną. Stwierdzono, że uwzględnienie tego wymiaru jest kluczowe dla tworzenia narzędzi, które są reprezentatywne, wrażliwe i dostosowane do złożoności wydajności w erze cyfrowej.

Słowa kluczowe: ocena pracy, wymiar psychospołeczny, kompetencje technologiczne, stres technologiczny

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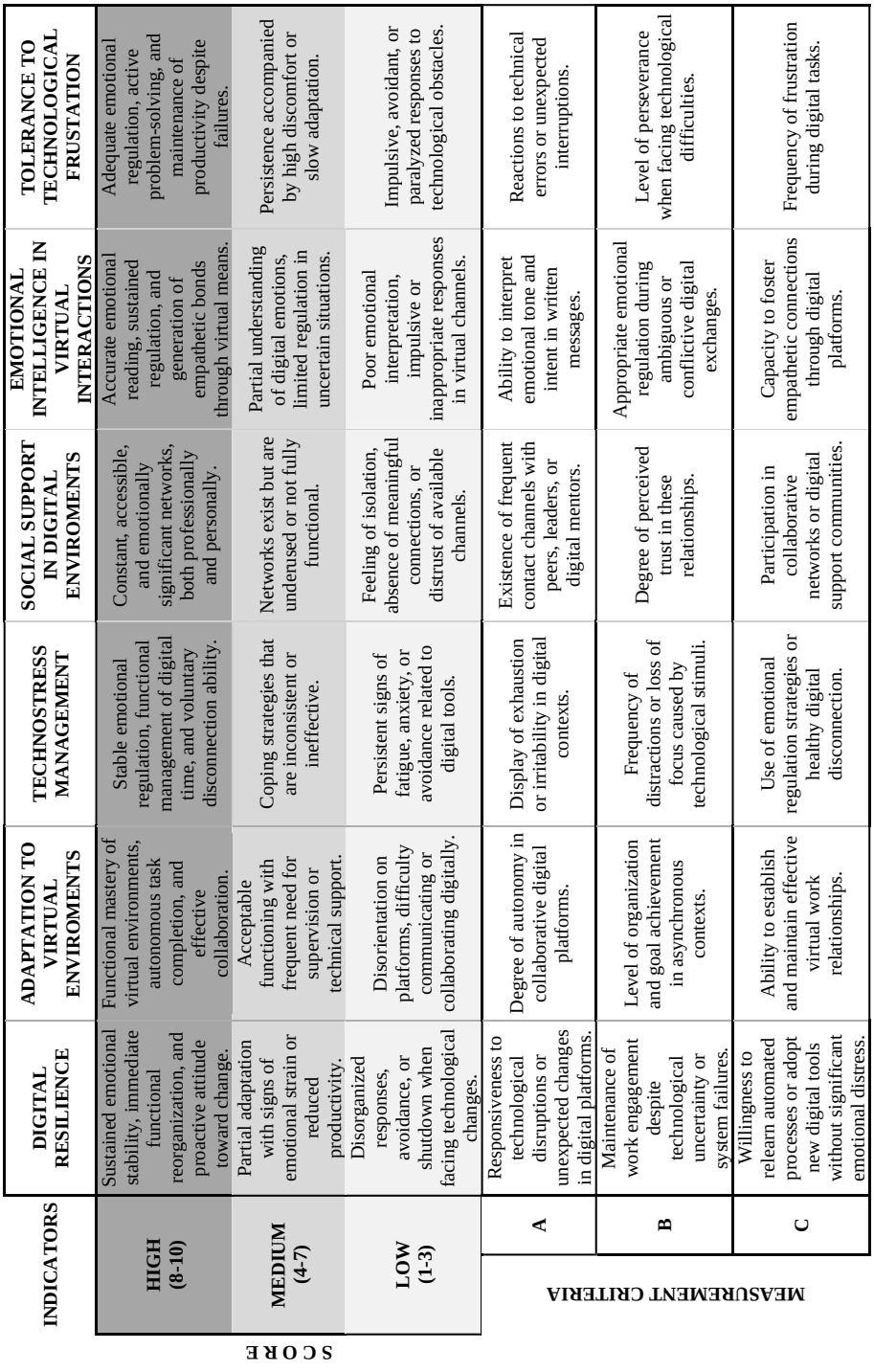
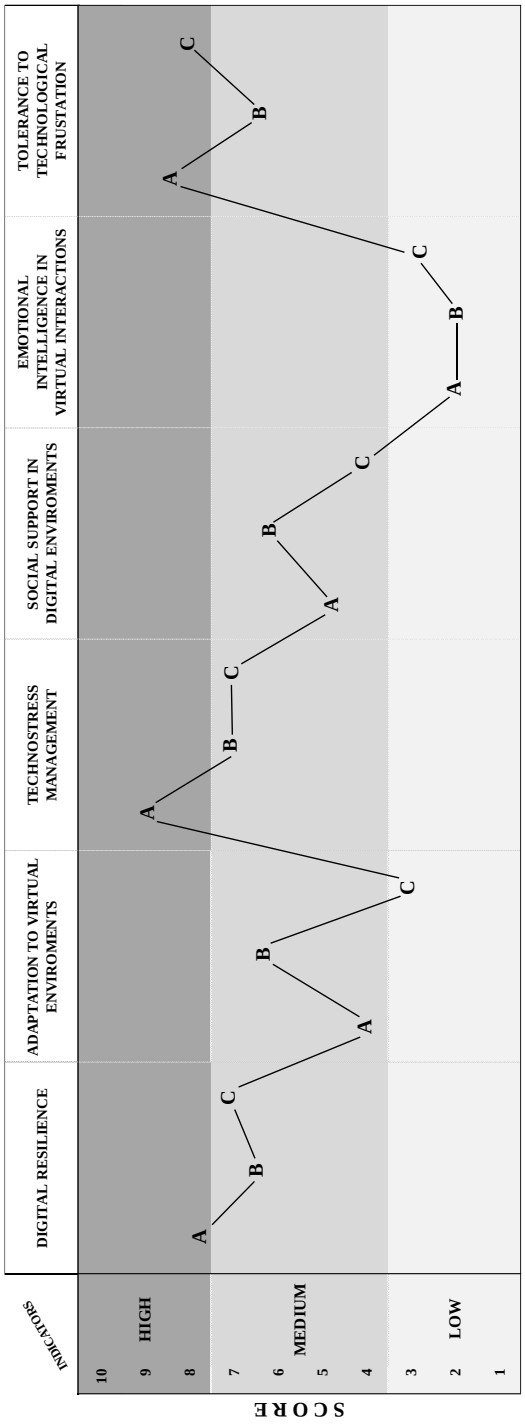
Annex 1



Source: Own elaboration based on the criteria defined in Phase 3.1

Annex 2



Source: Own elaboration for illustrative purposes

DOI: 10.17512/znpcz.2025.4.01

Annex 3

Criteria / Tests		Connor-Davidson Resilience Scale	Perceived Stress Scale	Job Content Questionnaire	Multidimensional Scale of Perceived Social Support	Trait Emotional Intelligence Questionnaire	Frustration Discomfort Scale	Scale of work climate	Change Adaptability Scale	Sense of Coherence Scale	Emotion Regulation Questionnaire	Maslach Burnout Inventory
Digital Resilience	Ability to respond to technological failures	X							X	X		
	Maintaining commitment despite uncertainty	X						X	X	X		X
	Willingness to relearn new tools	X							X	X		
Adaptation to virtual environments	Autonomy on digital platforms			X				X	X	X		
	Organization in asynchronous contexts			X				X	X			
	Effective virtual work relationships			X	X	X		X				
Technostress management	Burnout in digital contexts		X	X				X				X
	Distraction from digital overload		X	X			X	X				X
	Emotional regulation or disconnection					X	X				X	
Social support in digital environments	Frequent contact with peers/leaders			X	X							
	Trust in digital connections				X							
	Participation in collaborative networks				X							
Emotional intelligence in virtual interactions	Emotional interpretation of messages					X					X	
	Emotional regulation in online exchanges					X		X			X	
	Generation of empathic digital connections					X		X				
Tolerance to technological frustration	Reaction to technical errors						X			X		
	Perseverance facing technological difficulties						X			X		
	Frustration in digital tasks		X				X					X

Source: Own study based on research