TECHNICAL UNIVERSITY OF CLUJ-NAPOCA
ACTA TECHNICA NAPOCENSIS

Series: Applied Mathematics, Mechanics, and Engineering
Vol. 64, Issue Special IV, December, 2021

SYSTEMATIC RISK MANAGEMENT MODEL IN SMART WORKING

Roxana SANTA, Sorin POPESCU

Abstract: *This is a systematic study on how smart working could influence the target business results for future success and long-term resilience. The COVID 19 Pandemic accelerated the digitalization implementation such as artificial intelligence, cloud computing technologies, smart manufacturing & robotics, and the organizations reconsidered where, when and how the work is done. With the new way of working, the so called smart working, there are several risks which may endanger the success of an organization, implicitly the target results which are expected. In this regard a consolidated research of the current literature is performed to define a theoretical smart working model for identifying the main dimensions where risks can be found.*
Key words: *Smart working, Digitalization, Work 4.0, Risk Management in Smart working, Smart working model*

1. INTRODUCTION

Digitalization, robotics, artificial intelligence, Internet of Things - all seemed to be far in the future. But today, the technological advancement has accelerated significantly and one of the most visible change is in the way of working.

Besides Industry 4.0 dimensions on which smart working rely on. [1]defined recently a new concept named Industry 5.0, which aims to adapt research, innovation and production to a sustainable, human centralized approach focusing on safety and wellbeing.

Industry 4.0 compared to Industry 5.0 has a noticeable orientation on Digitalized Technologies with strong focus on performance, competition and efficiency and less on societal, humanitarian wellbeing aspects. Industry 5.0 is a completion to the 4th wave of industrialization which considers another important imperatives relevant for smart working.

Covid 19 Crisis has demonstrated that Smart working was functional and several research papers and web pages have shown an increasement in productivity [2], [3], [4], work-life balance, job satisfaction, lower operating costs, reducing commuting time, reduce absenteeism etc. [5] conducted a Remote Work Survey which exposed that almost 85% of the employers considered Smart Working successful and 71% employees think in the same direction. On these premises, and a global opportunity for great talent acquirement a significant number of CEO's genuinely desire to approach hybrid smart working as a strategic way of working for a long-term perspective [6]. However, while the smart

working concept and its ramifications is undoubtedly relevant, and its potential benefits

are obvious, being also an effective lever in digital transformation, there are also risks and challenges that can endanger the target results of the organizations to reach its success.
The top concern according to [7], was understanding the risks associated with Smart working. There is a concern regarding lacking a clear picture about risk ownership in leadership roles, the continuously changing of technologies and their impact, and additionally legislation is not clearly stipulated and risk management plan is not implemented early enough.
[8] summarized the main challenges associated with smart working, firstly managing associates who work remotely, lack of social cohesion, inefficient communication, connectivity and information technology, burnout, mental and physical health, etc.

Another concern is the smart working eligibility. Tasks and activities, implicitly the capability to identify the work output performance are the main determinants for smart working implementation. [9] proofs that suitability for Smart working is more appropriate to those who perform non-routines tasks, have a certain level of competence, education and experience. Clear insights and analysis on these imperatives are required for smart working adoption.
In this paper, we intend to define a Smart Working Model to support the organizations in identifying the main risks exposed by Smart working. The Model is inspired by EFQM Model and contains 3 main parts: Smart Working Enablers, Dimensions of Smart working where risks can be found and Target Results whose deviations create risks. The practicality of the model is proofed trough few examples.

2. BACKGROUND

2.1. Smart working definition, trends and implications regarding work design strategy, management and employee practices, legislation and technology

The smart working concept history is strongly debated in current literature, some researchers claims to appear as a first mention, as a relocation of work from the office in 1950s [10] , others specify that smart working originates from working remotely and was firstly mentioned in the 1960s, [11] specify that interest in remote working begun in 1970's, nevertheless the interest continued to grow further on, and a significant interest was shown in 2007-2010 crisis and afterwards when information technology developed greatly; [12] mentioned smart flexibility and smart working practicalities in 2013.
There was any agreement on a pre-defined name of the concept, as a result can be found in literature under different name ''smart working'', ''remote working'', ''teleworking'', ''homebased working'', ''future of work'', ''mobile working'', ''digital working'', ''virtual working'', etc. [13]
[14] describes the smart working as following: 'Smart working practices are agile, dynamic and emergent. They are the outcomes of designing organizational systems that facilitate customer-focused, value-creating relationships that are good for business and good for people.
Smart working is a way of working, independently of where and how the work is done. Smart working is enabled by Smart Factories equipped by Industry 4.0 digital innovative technological systems. Digital generations, the employees with strong Internet experience who entered in organizations just recently they strongly support the new ways of working [15].
Several researchers and practitioners identify the smart working concept , with the high necessity to rethink and redesign the work model, shape the change of the organization culture, leadership mindset and practices, enable the right technology for work performance and learning systems for employees upskilling, reskilling, fulfilling higher stakeholder expectations, and not least important define an appropriate legislation with a sense of flexibility

[13], [16]
Future of Jobs Report 2020 [6] states that more than half of the global businesses worked towards jobs automation and around 30% improved considerably the learning programs for the associates, in order to ensure the right knowledge and skills for job performance.

2.2 Existing Framework in Smart working

To conceptualize the Smart working Model, a broad range of research papers and web literature was analyzed in order to cover all relevant aspects.
The summary of the results can be found in Table 1.
Table 1. Different Types of Positioning Dimensions for Smart working framework in existing literature

Table 1. Different Types of Positioning Dimensions for Smart working framework in existing literature

SMART WORKING DIMENSIONS	KEY IMPLICATIONS	REFERENCE
Vision **Work reorganization** **Management practices** **Decision making** **Productivity** **Technology** **Ergonomics**	*-Necesity of Work Design change and adaptation of the right models, practices for each specific job role* *-Montitoring of work performed by employees, Job autonomy, Trust* *-Enabling smart working technology and infrastructure, and ensure proper work conditions*	[17] [18] [19] [20] [21] [22]
Personality	*-Performance ability determined by Personality characteristics such as Curiosity, Collaboration with others, Openness, Empathy and the Environment.*	[23]
Employee characteristics **Remote working characteristics** **Organizational context** **Country context**	*-Employee characteristics related way of working, reputation, future career development programs* *-Remote working characteristics including number of remotely working days, employee fit, remote working processes* *-Organizational context considering organization culture, management ways of leading, Human resources processes* *-Country context implications related national culture, regulations and legislations*	[24] [25]
Organization level **Group level** **Individual level**	*-Factors and effective outcomes described for each group level. As main outcomes were identified: Customer and*	[8]

	employee satisfaction, Productivity, Group collaboration and efficiency, Health and Wellbeing	
Privacy & Cybersecurity	*-Changing the office with a security environment to a home based approach expose the security to a complex list of risks*	[26]
Well-being and meaning	*-''Well-being dimensions: affective which refers to emotional experience of the employee, satisfaction, commitment to organization, burnout; social connected to social cohesion and relationships, implicitly isolation; cognitive aspects; professional and psychosomatic''* *Wellbeing dimensions described as:* *Physical wellbeing* *Mental wellbeing* *Social wellbeing* *Financial wellbeing*	[27] [28]
Workplace: **Taxes, Legal Aspects** **Retain and attract the workforce** **Cultural influence**	*Taxes and laws related employment, corporate* *Compliance to regulations* *Competencies, digital skills, learning strategies*	[29] [30] [31]
Health **Work- life balance**	*Mental and physical health* *Good task management and life balance*	[32] [6]
''Smart Environment, Governance, Way of Living, People, Economy and Mobility''	*Smart working dimensions towards a sustainable, user friendly , profitable business*	[33]

2.3 Risk Management

ISO 31000, defines risk as "The effect of uncertainty on objectives" that can have a positive or negative impact on organization [34], [35]. [16] reminds in his book the definition given by Institute of Risk Management (IRM) risk is a ''probability of an event'' with positive and negatives outcomes or consequences. Risk management process is considered a systematic approach which trough management practices, consultation& collaboration and external input and regulations, the context of the risk is defined, followed by the following steps: risk identification and risk understanding, assessment, definition of risk responses and continuously review of risks.

Risk management framework is as an essential structure which contains a "set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, reviewing and continually

improving risk management processes throughout the organization". [35] Risk management is not only relevant for risk managers champions. In the current times, with risk landscapes changing continuously, board management directors, managers at all hierarchical levels and country leaders need to have the knowledge to identify, assess and mitigate the growing number of new risks, to successfully shape change. Successful Risk Management (RM) implementation remains the most relevant imperative of an organization to achieve the predefined target results such as business continuity and financial success, performance and quality, sustainability and employee wellbeing, stakeholders satisfaction and compliance to governance and regulations [16].

As a result of increasingly uncertainty in the business environment, the organizations highlighted a growing need to re-evaluate, promote risk taking, improve the risk management and train the associates related risk management process in their organizations. Covid-19 crisis have underlined the unpreparedness of the contextual environment related to supply chains disruptions, digital implementation of processes and tools, response to new working models. Political, societal and environmental aspects cannot be underestimated in order to achieve a sustainable, resilient and profitable business [1]. How will the future look for risk management?

As the broaden of risks will grow significantly and hierarchy becomes more decentralized, the associates at different levels will be empowered for risk taking, artificial intelligence (AI) and the smart systems will assist the employee for a great decision making based on huge data capability assessment; However manage risks in real time and apply immediate measures will be a common practice, and an increasement of risks transfer trough contracts, insurances, and other tools to mitigate risks such as cyberattacks, business risks, political risks, etc are the main trends which will change the approach for managing the risks, described recently by [36].

3. RESEARCH METHODOLOGY

At intention level, the research behind the present paper addresses the Smart working in international business projects, aiming to draw up a consideration model for identifying the main dimensions that generates risks that derive from these aspects with which the companies who promote such ways of working are confronted. The paper is positioned as the first step in a broader demarche that analyses the present and arising risks in smart working environment, targeting to provide practical tools for their identification and management.

The main sources of information are searched in the existing literature as well as in relevant reports and documents on the web. The methodology adopted for this research paper is based on critical review of the literature and remarkable experience of the authors in international projects with companies, working in multinational companies in the quality and risk management field, and practicing smart working.

The European Foundation for Quality Management (EFQM) business model the upgrade version from 2020 and version 2012 and its strongly linkage with Industry 4.0, Industry 5.0, and Smart working literature states at the basis for the Smart working design model [37], [38].

EFQM Model could be found in Figure 1. Smart working Model can be found in Figure 2

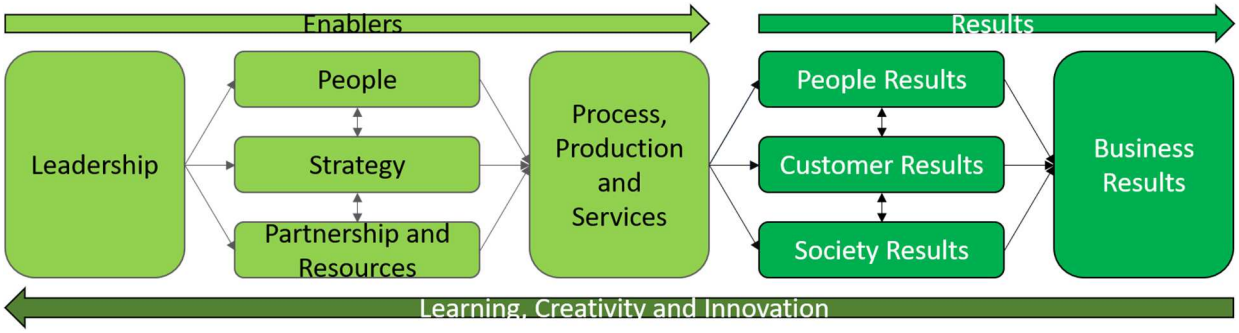

Fig.1. EFQM Model

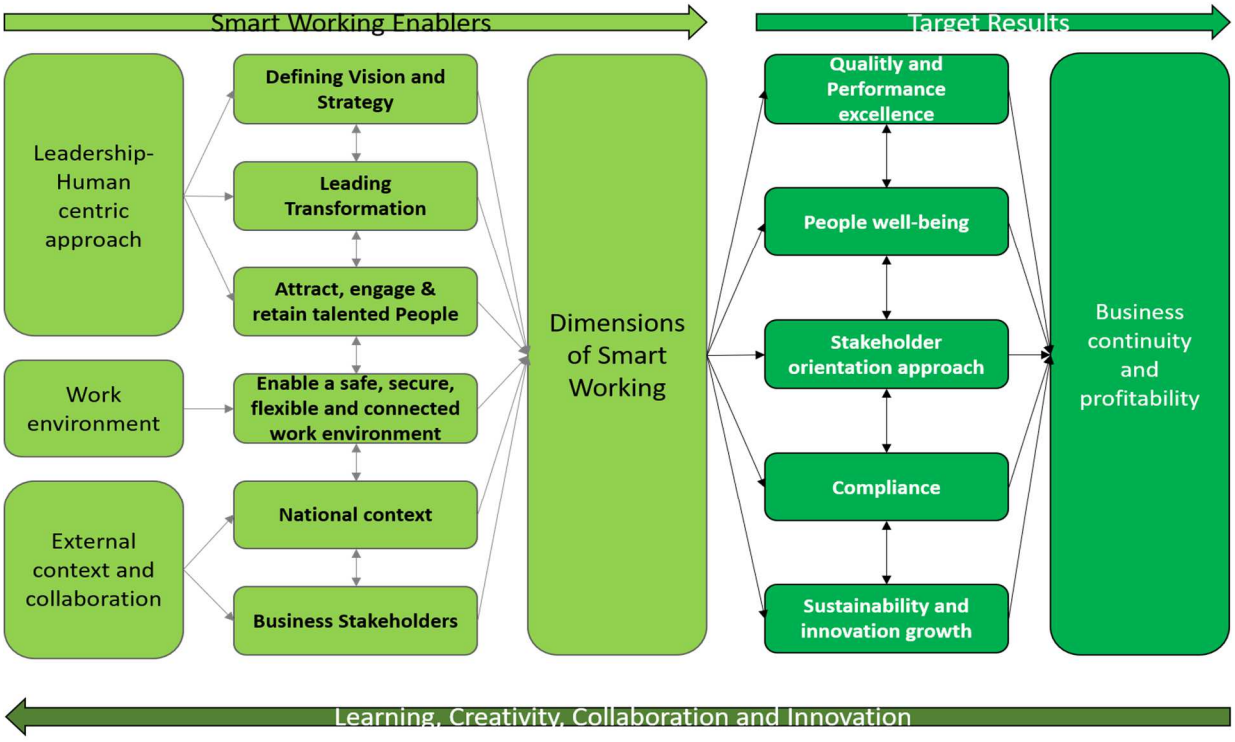

Fig. 2. Smart Working Model

Table 2. Research Methodology

No.	Research target/stage		Description
1	Framework dimensions	⇩	The main axes on which smart working are capable to generate risks for companies within their international business projects are defined and described. An initial vision starts from a framework defined by: Smart working enablers, Dimensions of Smart working, Target results
2	Smart working enablers	⇩	Being the driving force to enable implementation of Smart working, in the attributes of Leadership – Human centric approach, Work environment, External context and collaborations
3	Risk dimensions of Smart working	⇩	The main dimensions where risks can be found, are identified and detailed
4	Target results	◇	Defining targets which are ultimately being influenced by risks which can be found in the Dimensions of Smart working. The possible risks which will be identified can greatly impact these targets. Risk search based on deviations from target results.

4. RESEARCH RESULTS

More and more companies are focusing on the Smart Work model combining the opportunities of working remotely and on-site working. The intention of the organizations is to accomplish an effective Smart Digital Work. As current literature is citing, working in a digital environment is not eligible for all occupations, tasks and activities. In particular, the jobs which does not involve manual work or routine tasks, implicitly the employees with higher education level are more likely to fit for Smart working [9]. Based on the scientific research, six main targets results of the Smart effective Digital work can be found in Figure 3.

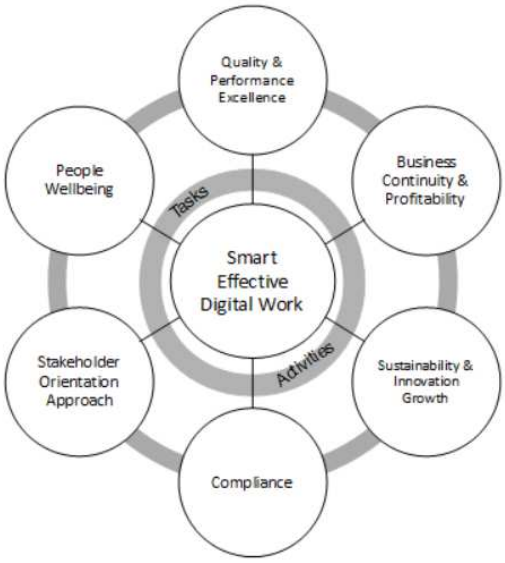

Fig. 3. Smart effective digital work objectives

The present research intends to define a Smart working model to support strategic management with risks identification. The model presented in Table 3. describes Smart Working Enablers, the main Dimensions associated with Smart working where risks can be found and the Target Results whose deviations create risks. Therefore, the model provides a major theme for future study.

The Model is based on a broad literature review (more as 50 references) partially described in Table 1.

The six enablers (Defining Vision and Strategy, Leading transformation and striving for excellence in a human centric approach, Attract, engage and retain talented people, Enable a safe, secure, flexible and connected work environment to boost human potential, National context (Norms and institutions), Business Stakeholders) represents the main areas which requires action and change in order to enable smart working excellence implementation and the impact of the 6 enablers implementation are the 5 target results (Business continuity & profitability, Quality and Performance Excellence, People well-being, Sustainability & Innovation Growth, Stakeholder orientation approach). Dimensions of Smart working is detailing the enablers actions and together with deviations from target results provides the main areas where risks can be found. The type of risks will be sought on each dimensions by consulting the relevant available literature. In this paper will be given few examples for using the model, and in future research will be design a framework with integration of all type of risks identified in the literature. The framework will be validated by questionnaires and interviews.

Table 3. Effective smart working theoretical model for risk identification

SMART WORKING ENABLERS		DIMENSIONS OF SMART WORKING WHERE RISKS CAN BE FOUND:	TARGET RESULTS WHOSE DEVIATIONS CREATE RISKS:
Leadership – Human	*Defining Vision and Strategy*	Work architecture & design model based on customer and workforce experience (Eligibility & Task and activities analysis)	Business continuity & profitability
		Organization culture and policies	

		Ensure business continuity	
	Leading transformation and striving for excellence in a human centric approach	Mindset: Empowerment, trust, flexibility	
		Managing Communication and Collaboration	
		Smart working tools	
		Leadership Model & Culture: Decision Making, Feedback, Coaching, Operating and Management practices	
	Attract, engage and retain talented people	Employee experience: Individual needs, preferences & characteristics: Human behavior, Personality	Quality and Performance Excellence
		Working practices: Work autonomy, Time Management, Decision making	
		Work-life balance, Work-family relation	
		Work Quality: Focus & Concentration, Feedback, Routine	
		Team experience: Communication, Agile Collaboration process, Building Relationships, Social Connection and Engagement	
		Performance & Reward	
		Digital skills, knowledge and capabilities (including Social intelligence)	
		Onboarding, Recruiting and Career Development	
Work environment	*Enable a safe, secure, flexible and connected work environment to boost human potential*	Work Wellbeing: Health (Physical & Mental) well-being Social well-being Financial well-being	People well-being
		Ergonomics	
		Physical and Digital Infrastructure, Smart Technology	Sustainability & Innovation Growth
		Digital Privacy & Cybersecurity data	
External context, and collaborations	*National context (Norms and institutions)*	Norms, Laws & Taxes for employment, layoffs, smart working, Institutions	Compliance
	Business Stakeholders	Customer – quality service, communication and collaboration, relationships and negotiations Suppliers Associate partners	Stakeholder orientation approach

In below table it is proof the practicality of the Smart working model as an example for one specific dimensions Digital Privacy & Cybersecurity data.

Table 4. Example illustrating the risk types identification within Digital Privacy & Cybersecurity data dimension

Dimensions of Smart working	Risk types	Potential influences	Ref
Digital Privacy & Cybersecurity data	Cyber-attacks	More likelihood that the employee is exposed to cyberattacks in smart working due to different distractions	[39] [4] [26] [40]
	Lack of Security training or employee awareness	Insufficient security knowledge and practices with influence on increased cyber attacks and mistakes due to high increasement of smart working apps (Teams, Mural, etc.)	[39] [40]
	Leakage of informations	Reduced management supervision and isolated work environment opens the opportunity for stealing informations	[39] [4]
	Insecure technology	Potential adoption of dangerous IT actions due to not using Virtual Private Network (VPN) or using a vulnerable WIFI connectivity	[39] [40]
	Employees privacy endangered by usage of monitoring tools	Due to monitoring tools implementation, employers could get in contact with a broaden personal/ private date of the employee	[39]
	Overstepped privacy by monitoring emotional status	Implementation of smart technologies to monitor the wellbeing state of employee including psychological and emotional state creates an associate profile with impact on employment	[39]
	Data exposure on social media	Leakage of informations on social media via photos or texts regarding organization confidential informations, or personal interest and key informations from the job role may endanger the organizations	[39] [4]

5. CONCLUSIONS

The Covid19 pandemic has dramatically change the way organizations are functioning. Entrepreneurs, Business leaders and Management need to rethink their strategy, vision & policies and change their organization culture to ensure people wellbeing, quality and performance excellence, sustainability, innovation growth, compliance, stakeholder satisfaction of the increasingly expectations and business continuity and profitability.

Smart working models or hybrid models becomes an increasingly trend due to important benefits proven along the time, such as increasing productivity, job satisfaction, work-life balance, reducing absenteeism, expanding of opportunities for talent acquirement and retainment, reducing costs etc.

However, the literature highlights a lacking of understanding and having a clear picture about risk ownership in leadership roles. The continuously changing of technologies and their impact, legislation with not clearly stipulated rules and risk management plan not implemented early enough, are the main noticeable concerns.

In this regard, this research paper created a Smart working model which provides the foundation for Business leaders and management, in identifying and recognizing the most relevant areas where organization have to work on, and the main dimensions where risks can be found and be mitigated in order to achieve excellence for target results accomplishment and successful smart working implementation. In the future research papers is intended to design a conceptual framework with the main type of risks brought by smart working, and validate the results

through questionnaires and interviews, to enrich and consolidate the present study.

6. REFERENCES

[1] European Comission, «*Industry 5.0*,» 2021. Available from: https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50_en.

[2] D. E. Bailey et N. B. Kurland, «*A Review of Telework Research: Findings, New Directions, and Lessons for the Study of Modern Work,*» Journal of Organizational Behavior, pp. 383-400, June 2002.

[3] McKinsey, «*What's next for remote work: An analysis of 2,000 tasks, 800 jobs, and nine countries,*» McKinsey Global Institute, November 2020.

[4] A. Mihailovic et et al., «*COVID-19 and Beyond: Employee Perceptions of the Efficiency of Teleworking and Its Cybersecurity Implications,*» Sustainability, June 2021.

[5] PwC, «*It's time to reimagine where and how work will get done. PwC's US Remote Work Survey*,» January 2021. Available from: https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html.

[6] WEF, «*Resetting the Future of Work Agenda: Disruption and Renewal in a Post-Covid World*,» October 2020. Available from: https://www3.weforum.org/docs/WEF_NES_Resetting_FOW_Agenda_2020.pdf.

[7] McKinsey, «*Derisking digital and analytics transformations*,» January 2021. Available from: https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/derisking-digital-and-analytics-transformations.

[8] M. M. Robertson et et al., «*Examining the macroergonomics and safety factors among teleworkers: Development of a conceptual model,*» IOS Press, pp. 2611-2615, 2012.

[9] D. Kawaguchi et H. Motegi , «*Who Can Work from Home? The roles of Jobs Tasks and HRM Practices,*» Journal of the Japanese and International Economies. Elsevier, August 2021.

[10] Y. Baruch, «*The status of research on teleworking and an agenda for future research,*» *IJMR,* June 2001.

[11] J. M. Nilles, «*Telecommunications and Organizational Decentralization,*» IEEE Transactions on Communications, pp. 1142-1147, October 1975.

[12] A. Lake, S*mart Flexibility Moving Smart and Flexible Working from Theory to Practice*, Routledge, 2013.

[13] M. Menshikova, A. Fedorova et M. Gatti, «*Introducing Smart-Working in the Conditions of Digital Business Transformation: Analysis of an Employee's Experience*,» Digital Transformation and New Challenges, pp. 59-71, May 2020.

[14] A. M. McEwan, *Smart Working. Creating the Next Wave*, Gower Publishing, 2013.

[15] P. di Nicola, «*Smart Working and Teleworking: two possible approaches to lean organisation management.*,» Unece, 2021.

[16] P. Hopkin, *Fundamentals of Risk Management. 4th Edition*, New York and London: Kogan Page Limited, 2017.

[17] A. Aguiléra et et al., «*Home-based telework in France: Characteristics, barriers and perspectives*,» *Transportation Research Part A Policy and Practice ,* pp. 1-11, October 2016.

[18] P. Pyöriä, «*Managing Telework: Risks,*

Fears and Rules,» Management Research *Review ,* pp. 386-399, March 2011.

[19] B. Wang et et al., «*Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective*,» *IAAP,* October 2020.

[20] P. Standen et et al., «*Running Head: PSYCHOLOGICAL WELL-BEING OF TELEWORKERS*,» School of Management, Edith Cowan University, 1999.

[21] Deloitte, «*Re-architecting Work Models. Four Future Worlds of Work*,» November 2020. Available from: https://www2.deloitte.com/content/dam/Deloitte/au/Documents/human-capital/deloitte-au-hc-re-architecting-work-models-111120.pdf.

[22] J. Ferreira et et al., «*The Path to Remote-Working Maturity,*» October 2020. Available from: https://www.bcg.com/de-de/publications/2020/the-path-to-remote-working-maturity.

[23] T. Chamorro-Premuzic et R. Akhtar, «*3 Traits You Need to Thrive in a Hybrid Work Environment,*» August 2021. Available from: https://hbr.org/2021/08/3-traits-you-need-to-thrive-in-a-hybrid-work-environment.

[24] P. Peters et L. den Dulk, «*Cross Cultural Differences in Managers' Support for Home-Based Telework: A Theoretical Elaboration,*» International Journal of Cross Cultural Management*,* December 2003.

[25] L. Errichiello et T. Pianese, «Transforming the Workplace: Smart Work centers as the new frontier of remote work arrangements,» Conference: 1st International #RGCS 2016 Work and Workplace Transformations, December 2016.

[26] F. Malecki, «Overcoming the security risks of remote working,» Computer Fraud & Security, pp. 10-12, July 2020.

[27] M. Charalampous et et al., «*Systematically reviewing remote e-workers' well-being at work: a multidimensional approach*,» European Journal of Work and Organizational Psychology, November 2018.

[28] S. Tuzovic, «*The influence of social distancing on employee wellbeing: A conceptual framework and research agenda*,» Journal of Service Management. Emerald Publishing Limited, 2020.

[29] Deloitte, «*Identifying Your Remote Workforce: managing risks to the business,*» 2020. Available from: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/Tax/us-remote-work-identifiers.pdf.

[30] Deloitte, «*Remote Work Time to Rethink Working Patterns: The Threats & Opportunities of Employee Remote Work,*» 2020. Available from: https://www2.deloitte.com/content/dam/Deloitte/ro/Documents/Remote%20Work%20-%20Deloitte%20Integrated%20Solutions.pdf.

[31] J. Campbell et C. Mcdonald, «*Defining a Conceptual Framework for Telework and an Agenda for Research in Accounting and Finance*,» International Journal of Business Information Systems, pp. 387-402, January 2009.

[32] J. Vittersø et et al., «*Impacts of Home-Based Telework on Quality of Life for Employees and Their Partners. Quantitative and Qualitative Results From a European Survey*,» Journal of Happiness Studies, pp. 201-233, June 2003.

[33] M. Lima, «S*marter organizations: insights from a smart city hybrid framework,*» International Entrepreneurship and Management

Journal , December 2020.

[34] S. Alhawari et et al., «*Knowledge-Based* R*isk Management framework for Information Technology project*,» International Journal of Information Management. *Elsevier,* pp. 50-65, 2011.

[35] Compliance online, «*ISO 31000 and Enterprise Risk Management,*» 2021. Available from: https://www.complianceonline.com/dictionary/ISO_31000_Enterprise_Risk_Management.html.

[36] Deloitte, «*The future of risk. New game, new rules,*» 2021. Available from: https://www2.deloitte.com/us/en/pages/risk/articles/future-of-risk-ten-trends.html.

[37] L. Fonseca et et al., «*Quality 4.0: The EFQM 2020 Model and Industry 4.0 Relationships and Implications*,» Sustainability, March 2021.

[38] EFQM, *EFQM EXCELLENCE MODEL*, EFQM, 2012.

[39] J. R. C. Nurse et et al., «*Remote Working Pre- and Post-COVID-19: An Analysis of New,*» 23rd International Conference on Human-Computer, July 2021.

[40] Deloitte, «*Remote Work Cyber Security*,» April 2020. Available from: https://www2.deloitte.com/content/dam/Deloitte/az/Documents/risk/Remote%20business%20security.pdf.

MODEL SISTEMATIC DE GESTIONARE A RISCURILOR ÎN SMART WORKING

Rezumat: Acesta este un studiu sistematic privind modul în care smart working poate influența rezultatele țintă a organizației pentru a atinge succesul și reziliența pe termen lung. Pandemia de COVID 19 a accelerat implementarea digitalizării, cum ar fi inteligența artificială, tehnologiile de cloud computing, producția inteligentă și robotica, iar organizațiile au reconsiderat unde, când și cum se desfășoară activitatea. Odată implementat noul mod de lucru, așa-numitul smart working, există mai multe riscuri care pot pune în pericol succesul unei organizații, implicit rezultatele țintă care sunt așteptate. În acest sens, se efectuează o cercetare consolidată a literaturii actuale pentru a defini un model teoretic de lucru inteligent pentru identificarea principalelor dimensiuni unde pot fi găsite riscurile.

Roxana SANTA, Project Quality Manager, Robert Bosch GmbH, Germany, Roxana.Santa@muri.utcluj.ro, +49-15735229659

Sorin POPESCU, Prof. Dr. Ing., Technical University of Cluj-Napoca, Department of Design and Robotics, 28 Memorandumului Str., 400114 Cluj-Napoca, Romania; Sorin.Popescu@muri.utcluj.ro, +40-(0)744-565369