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Managing for resilience through social sustainable human resource approach: the effect on organisational performances

Andrea Caputo
Department of Economics and Management, University of Trento, Trento, Italy and Department of Management, University of Lincoln, Lincoln, UK
Alberto Tron
Faculty of Economics and Law, Universitas Mercatorum, Rome, Italy
Sara Sassetti
Department of Economics and Management, University of Pisa, Pisa, Italy
Anastasia Giakoumelou
Department of Management, Ca' Foscari University of Venice, Venice, Italy, and
Federico Colantoni
Department of Finance, Bocconi University, Milano, Italy

Abstract

Purpose – The aim of the study is to assess a model that examines the impact of various aspects of socially sustainable human resource management (SSHRM), such as enhancing employees' well-being, maintaining a healthy and safe workplace, and ensuring work-life balance, on the financial performance of organisations during the COVID-19 pandemic.

Design/methodology/approach – By utilising an Italian sample of 132 listed companies, the study employs several methodologies, including panel data analysis with fixed effects and OLS, to test the different traits of SSHRM on the financial results of companies.

Findings – The study reveals that companies who prioritise the well-being of their employees outperform their peers in terms of market valuation and accounting metrics, which highlights the critical importance of investing in human resources. Additionally, we find that health, safety and employee turnover positively impact accounting performances. However, implementing policies to promote work–life balance does not seem to have a relevant effect on accounting and market performances.

Originality/value – Our study makes a theoretical contribution to the field of SSHRM literature and underscores the importance of integrating SSHRM strategies into organisational frameworks.

Keywords Human resources, Firm performance, Organisation management

Paper type Research paper

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1. Introduction

The ongoing and enduring impact of COVID-19 on the global economy remains profound. Mostly, the confluence of recent events, including the pandemic, climate-related catastrophes, and geopolitical tensions, has underscored the vulnerabilities in organisational resilience, emphasising the imperative of cultivating human capital capabilities to ensure strategic viability amid adversities (Damiano and Valenza, 2024; Delladio *et al.*, 2023). Indeed, the key to resilience is the immeasurable value of employees, whose skills, expertise, and unwavering dedication (Lu *et al.*, 2022) constitute the bedrock of an organisation's ability to navigate and recover from crises (Delladio *et al.*, 2023). At the same time, recent studies suggest that sustainable companies exhibit greater resilience and encounter a reduced decline in their financial performance. This underscores the notion that sustainability functions akin to a form of "insurance," offering protection against economic downturns (Lu *et al.*, 2022).

Consequently, there emerges a critical need to explore the intersection of sustainability and Human Resource Management (HRM) in fostering organisational resilience. Between researchers, various terms delineate the relationship between Human Resource Management (HRM) and sustainability, such as socially responsible HRM, green HRM, triple bottom line HRM, and common good HRM (Aust *et al.*, 2020). Among these terms, "sustainable HRM" emerges as the predominant designation, functioning as an overarching framework that encompasses and encapsulates other related concepts (Kramar and Mariappanadar, 2015). Malik and Singh (2024) have recently adopted the theoretical concept of Socially Sustainable Human Resource Management (SSHRM) to demonstrate that SSHRM practices can boost employee resilience and well-being. SSHR is characterised as an approach that prioritises the equitable treatment of employees while also fostering constructive relationships between the organisation and its workforce (Kramar and Mariappanadar, 2015; Malik and Singh, 2024).

To address how SSHRM influences organisational outcomes, it is essential to explore the intertwined roles of HRM in fostering both individual and organisational resilience. Several studies have focussed on organisational resilience, highlighting HRM's contribution to an organisation's ability to respond to and thrive in times of crisis. For instance, Rodríguez-Sánchez *et al.* (2021) demonstrated that strategically managing human resources helps organisationss aggregate employee competencies, enhancing their collective capacity to withstand shocks. Similarly, Hollands *et al.* (2024), using a mixed-method approach, found that HRM plays a facilitating role in navigating crises. However, the authors stressed the need for future research to complement perception-based data with firm-level information to improve generalisability and validity (Hollands *et al.*, 2024).

On the other hand, research on individual resilience underscores its importance in enhancing employee well-being and performance. Tonkin *et al.* (2018) found that resilient employees experience lower levels of psychological distress and are better able to adapt to adversity, making employee resilience a valuable asset for both individuals and organisations. Despite this, Cooper *et al.* (2019) noted that limited research exists on how HRM can systematically cultivate resilience in employees. Lu *et al.* (2023) addressed this gap by examining how Strategic Human Resource Management, adopting a common good values approach (SHRM-CGV), contributes to employee resilience, which in turn positively influences employee well-being and performance. Their findings indicate that fostering resilience serves as a key mechanism through which HRM promotes positive employee outcomes. However, the link between sustainable HRM practices and organisational outcomes is still underexplored, limiting the ability to manage this relationship effectively. Prior studies have already shown a connection between sustainable business practices and financial performance (Lu *et al.*, 2022). Yet, despite acknowledging employees as key assets in organisational success, they are often marginalised in sustainability discussions (Rodríguez-Sánchez *et al.*, 2021), and their direct contribution to financial performance remains underexplored (Lu *et al.*, 2023; Zhang *et al.*, 2024).

This literature forms the foundation for the present study, which seeks to address these research gaps by testing a model using panel data with fixed effects and an OLS approach, applied to a sample of listed Italian companies. The model examines how different aspects of SSHRM—such as improving employee well-being, ensuring a healthy and safe workplace, and guaranteeing work-life balance—affect the financial performance of organisations during the COVID-19 pandemic. By focussing on the role of SSHRM in promoting organisational resilience, this study seeks to provide a more comprehensive understanding of how sustainable HRM can serve as a crucial lever for enhancing financial performance, especially during times of crisis.

Final results show that firms that invest in the well-being of their employees surpass their counterparts in terms of market valuation and accounting metrics, underscoring the crucial significance of investing in human resources. Furthermore, we underscore the substantial influence of health, safety, and employee turnover on accounting performance. Concurrently, the adoption of politics in order to incentivise work-life balance exhibits no apparent impact on accounting and market performances.

The remainder of this paper is structured into six sections. The next section presents a literature review to build the theoretical framework supporting the hypotheses for the study, followed by the section which describes the employed methodology. The fourth section reports the outcomes, and the fifth section discusses the results. The paper ends with a summary of the conclusions and the implications for future research.

2. Literature review and hypothesis development

Socially Sustainable HRM (SSHRM) has emerged as a recent significant field of study (Malik and Singh, 2024). Through the cultivation of SSHRM, organisations aspire to generate positive outcomes for their employees, local communities, and society at large. This commitment involves the implementation of fair labour practices, the promotion of diversity and inclusion, the maintenance of a healthy workspace, and support of the work-life balance (Xiao *et al*., 2020). However, while this perspective recognises human capital as a valuable resource that promotes employees' well-being, health, and work-life balance, it is important to critically evaluate the challenges involved in balancing these objectives with organisational performance, especially during crises such as the COVID-19 pandemic.

Regarding the employees' well-being within sustainable organisations, previous research underscores the pivotal role of human resources management in cultivating socially responsible firms (Murillo-Ramos *et al*., 2023; Ren *et al*., 2023). In literature, an important distinction is made regarding corporate resources, classifying them under two categories: (1) operand resources, which are static and tangible, such as property, plants and equipment, and (2) operand resources, which are dynamic and intangible, such as knowledge, skills and innovation, and strategic to develop sustainable competitive advantages and produce hard effects on operand resources (Brown *et al*., 2024). This conceptualisation has altered corporate priorities, bringing internal actors' well-being to the forefront.

Indeed, employees' well-being management contributes materially to the productivity and profitability of the firm, thus contributing towards achieving organisational goals (Xu and Smyth, 2023). The COVID-19 crisis serves as a vivid reminder for organisations that while profits are crucial, the treatment and well-being of employees and other stakeholders, such as society and the environment, are equally significant (Roumpi, 2021). Organisations that integrate social sustainability principles into their HRM practices enhance their employees' well-being and reinforce their resilience (Malik and Singh, 2024). Yet, the challenge lies in translating these principles into concrete, measurable financial outcomes (Lu *et al*., 2023), especially in times of crisis, which is a question this study aims to address. Recent studies indicate that sustainable companies demonstrate heightened resilience, not only in the individual but also in the organisation, experiencing an increase in their financial performance (Damiano and Valenza, 2024; Lu *et al*., 2022). However, the mechanisms by which this resilience translates into financial performance remain underexplored, particularly in relation to SSHRM practices. Consequently, by prioritising the social dimension of sustainability, HRM contributes towards fostering a harmonious workplace environment, enhancing employee satisfaction and well-being, and bolstering the organisation's economic performance.

Thus, we propose the following hypothesis:

H1 (HP1). A company that invests in the social dimension of sustainability will have a higher economic performance.

Regarding employees' health, past research suggests that workplace design significantly influences employees' physical and mental health (Bratton *et al.*, 2021). As a result, health and safety considerations in policy design and implementation are pivotal for employee productivity, performance, and engagement (Lari, 2024). Decades after Robens (1972) highlighted the need to hedge human safety externalities of production and Zohar's (1980) introduction of the term "safety climate" to describe the view of organisational safety under an employee's perspective, procedures, policies and practices remain key and assume a plethora of corporate interpretations, with a particular focus on accident rates as the physical incidence of risk and risk perception and training as a hedging mechanism (Andersen *et al.*, 2019). By doing so, organisations not only foster a healthier workplace but also enhance employee well-being, which can ultimately drive organisational resilience and improve financial performance, particularly during times of uncertainty.

Indeed, moving into a recently intensified trend, job insecurity and employability are two dimensions on which research has put much stress following the COVID-19 pandemic (Vo-Thanh *et al.*, 2022), indicating their significant negative effect on job attitude and performance. High insecurity and low perceived employability can hinder employee capability usage towards goal achievement (Aguiar-Quintana *et al.*, 2021) through absenteeism, emotional exhaustion, anxiety, and turnover intentions (Vo-Thanh *et al.*, 2022). Such risks have been elevated since the pandemic, with empirical evidence showcasing an overall increase in psychological distress in society and a deteriorated global mental health level (Kola *et al.*, 2021). These findings underscore the critical need for organisations to adopt SSHRM practices and prioritise employee well-being and health. Consequently, organisations can not only mitigate the negative impacts of job insecurity, but also improve financial performance.

Since mental health significantly impacts employees' behavioural outcomes and performances (Bratton *et al.*, 2021), including their task performance, creative performance, and pro-environmental performance, workplace-related stressors such as job insecurity and employability are instrumental in well-being policy design. HR Managers are further motivated to implement policies seeking to improve employability and reduce insecurity if one is to consider the significant alleviating impact that employee resilience has granted businesses (Guo *et al.*, 2022), which is also confirmed through the pandemic crisis (Aguiar-Quintana *et al.*, 2021). Addressing workplace-induced stressors is crucial for firms to maintain and boost motivation (Long *et al.*, 2022), organisational commitment and identification (Antino *et al.*, 2022) and their consequent performance outcomes. By linking mental health and workplace stressors to financial performance, this research highlights the necessity for organisations to adopt comprehensive SSHRM practices which can lead to improved performance outcomes in turbulent times. Thus, we propose the following hypothesis:

H2 (HP2). A company that reduces workplace-induced stressors will have a lower turnover ratio and higher safety schemes and, thus, higher economic performance.

Research identifies an additional stressor related to workplace design in the work-life conflict, defined as the negative inter-role between work and non-work demands resulting in the lack of fulfilment of non-work demands (Huo and Jiang, 2023). Due to the high frequency of the phenomenon, research has shown intense interest in the topic (Baer *et al.*, 2016), linking it to strain, exhaustion and work disengagement (Ribeiro *et al.*, 2023). However, past studies have yielded contradictory findings regarding the impact of the side effects of work-life conflict on job performance, with some researchers indicating a significant relationship between the two (Huo and Jiang, 2023) and others encountering no significant connection (Ribeiro *et al*., 2023). By examining the relationship between work-life conflict and corporate outcomes, this research aims to highlight the importance of addressing such stressors within the framework of SSHRM. We presume there is a negative link between work-life conflict and corporate outcomes given the negative impact of the former on employee wellbeing, which diverges personal resources away from business objectives (Liao *et al*., 2019).

Thus, we propose the following hypothesis:

H3 (HP3). A company that allows flexible working schemes will have higher economic performance.

3. Materials and methods

3.1 Data

The research employed the Thomson Reuters Eikon database to gather corporate data from 132 listed Italian companies, covering the timeframe from 2019 to 2022. Recognised as a widely acknowledged tool in academic research, the Eikon database has been used in various studies investigating the relationship between sustainability and performance, such as the work by Lu *et al*. (2022). The sampling strategy involved a systematic selection of Italian companies listed on major stock exchanges, since Italy is a country that offers significant advantages, including a robust welfare system and extensive human resources, which facilitate thorough data collection (Battisti, 2022; SDA Bocconi, 2023). By focussing on listed companies, the research ensured access to high-quality financial data, which is essential for the analysis of sustainability and performance metrics. Furthermore, it is important to note that HRM data is often measured and communicated differently across companies, leading to variations in rating systems from country to country. This inconsistency can hinder the comparability of HRM metrics, making it challenging to draw reliable conclusions from multi-country analyses. As a result, focussing on a single country mitigates these issues, providing a more coherent and reliable dataset. Additionally, the impact of HRM practices is influenced by sector-specific legislation, which can vary significantly across different national contexts (Battisti, 2022). These legal differences can affect the implementation of HRM policies and the incentives available to organisations, further complicating cross-country comparisons.

The study examined multiple dependent variables associated with financial performance (Tron and Colantoni, 2021). Specifically, pre-tax return on assets (ROA) and pre-tax return on equity (ROE) were used to evaluate profitability concerning total assets and shareholders' equity, respectively. Lastly, Tobin's Q was employed to gauge the market value of a company relative to the replacement cost of its assets, providing insights into whether the company is undervalued or overvalued. This combination of variables was selected to offer a well-rounded evaluation of both accounting-based and market-based aspects of financial performance, as commonly done in previous research (e.g. Tron and Colantoni, 2021). These variables were chosen because they effectively capture the key dimensions of a company's financial and accounting performance, providing a comprehensive view of its overall financial health.

To assess the robustness of our findings, we adopt two alternative measures for Tobin's Q ratio. Initially, Tobin's Q ratio is defined in accordance with the formulations provided by Panaretou (2013):

$$Tobin's\,Q\,1 = \frac{Market\,Value\,of\,Equity + Book\,Value\,of\,Preferred\,Stocks + Book\,Value\,of\,Debt}{Total\,Assets}$$

Furthermore, an alternative definition for Tobin's Q ratio is presented, as articulated by Panaretou (2013):

$$Tobin's\,Q\,2 = \frac{Market\,Value\,of\,Equity - Book\,Value\,of\,Equity + Total\,Assets}{Total\,Assets}$$

As independent variables, this study utilised several human resources scores. These variables were developed by Refinitiv to objectively evaluate a company's relative performance in social categories. Noteworthy for their reduced vulnerability to selection bias, Refinitiv ESG scores were chosen for their ability to yield more informative results regarding variability and distribution compared to similar ESG ratings, as highlighted by Desender and Epure (2015). Regarding the employees' well-being, the social component of the Refinitiv ESG scores (S-Score) encompasses various factors reflecting a company's social responsibility and engagement performance. This includes considerations such as labour practices, employee relations, diversity and inclusion policies, community engagement, and human rights initiatives. The calculation of the social component integrates data on these factors, assessing their alignment with industry materiality and adjusting for company size biases. All available independent variables related to HRM were included in the sample to ensure a comprehensive analysis. This approach also helps to minimise potential bias that could arise from selectively excluding relevant variables. Therefore, in order to assess the health and safety aspects related to HRM, these indicators have been adopted: the number of employee accidents, the Value of health safety policy, a score given to the quality of the health and safety policy of a company, and the turnover of employees. Finally, in order to measure the adoption of work-life balance initiatives, flexible working schemes have been selected as indicators.

Several control variables were also added in line with previous studies (Tron and Colantoni, 2021).

A description of the variables used can be found in Table 1.

3.2 Research design

The research employed a longitudinal design spanning firm-years, incorporating dynamic associations between the independent test variables and dependent variables. To mitigate issues related to multicollinearity and estimation bias, the chosen analytical approach involved

Table 1. Description of the variables

Variables	Definitions
Dependent variables	
(Firm Performance)	
Tobin's Q	Market value of equity plus debt divided by total assets
Pre-tax ROA (%)	Earnings before tax divided by total assets
Pre-tax ROE(%)	Earnings before tax divided by total equity
Independent variables	
(corporate welfare variables)	
S score	S score ranging between 0 and 100
Employee Accidents	Number of employee accidents (in % in comparison to the total employee number)
Flexible working schemes	Binary variable relate to the presence or not of flexible working scheme
Value health safety policy	Score ranging between 0 and 100 related to health safety policy
Turnover of employees	Number of employee turnover (in % in comparison to the total employee number)
Control variables	
Ln Total Assets	Natural logarithm of total assets
Leverage	Total liabilities divided by total assets

Source(s): The authors. The data was retrieved from the Thomson Reuters Eikon database panel data analysis with fixed effects, as recommended for instance by Kuzey *et al.* (2021). However, using panel data can lead to biased estimates if the appropriate model is not chosen. The study conducted *F*-tests, LM tests, and Hausman's tests to determine the suitability of fixed-effects versus random-effects or pooled OLS models. These tests supported the use of a fixed-effects model, which helps to mitigate estimation bias by allowing for individual-specific effects and ensuring the model is more appropriate for the data structure than both pooled-ordinary least squares (OLS) regression and random effects panel data analysis. The study formulated its models based on the following relationship:

$$Y_{it} = \alpha_i + X_{it}\beta + u_{it}$$

where Y_{it} represents dependent variables (Tobin's Q, ROA and Roe), and X_{it} represents independent test variables (employees' well-being, health and work-life balance) and control variables.

There is a risk that unobserved variables, which are not included in the model, could correlate with both the independent and dependent variables, leading to biased estimates. The study mitigates this bias by using a fixed-effects panel analysis, which accounts for time-invariant unobserved heterogeneity across companies (represented by α_i). By including company-specific fixed effects, the model controls for any unobserved characteristics that are constant over time, reducing the impact of omitted variable bias. Additionally, this approach employs the use of the year as a dummy variable, as outlined by Wooldridge (2010). Additionally, in order to enhance the robustness of the results and address potential biases, an OLS regression model was used as a control method.

3.3 Data description

In Table 2, descriptive statistics of the variables are reported. The S Score varies notably from 45 to 100 with a median value of 80, suggesting that companies are increasingly investing in this field. Employee accidents, ranging from 0 to 13, highlight potential workplace safety concerns. However, companies highly value health safety policies with a median value equal to 100.

We proceeded to the analysis of the correlation among the variables, which is shown in Table 3. The correlation analysis reveals a positive relationship between the S Score and Tobin's Q1, indicating a potential influence on company valuation. Conversely, the presence of flexible working schemes appears to exert a negative influence on market performance.

To examine multicollinearity, we conducted the Variance Inflation Factor (VIF) test. In all instances, the variance inflation factor did not exceed two, indicating an absence of significant

Table 2. Descriptive statistics

All sample	*N*	P1	Mean	P50	P99
Tobin's Q 1	342	−2.03	3.96	0.59	8.12
Tobin's Q 2	342	0.00	2.87	0.43	6.12
Pre-tax ROA (%)	378	−19.23	3.70	3.72	22.95
Pre-tax ROE(%)	373	−18.57	7.61	8.45	32.7
S score	257	45	82	80	100
Employee Accidents	224	0	3.00	2.57	13.00
Flexible working schemes	342	0	0.66	1	1
Value health safety policy	342	0	93	100	100
Turnover of employees	342	0	13.15	9.9	36.23
Total Assets	342	88.00	1.015.515	136.827	5.853.498
Leverage	342	−1.21	1.14	0.16	20.32

Source(s): The authors

Table 3. Correlation matrix

	Tobin's Q 1	Tobin's Q 2	Pre-tax ROA (%)	Pre-tax ROE(%)	S score	Employee accidents	Flexible working schemes	Value health safety policy	Turnover of employees	Total assets	Leverage
Tobin's Q 1	1.00										
Tobin's Q 2	0.8883*	1.00									
Pre-tax ROA (%)	0.0333	0.0470	1.00								
Pre-tax ROE (%)	0.0213	0.0194	0.7262*	1.00							
S score	0.3213*	0.2355	0.1245	0.5332	1.00						
Employee Accidents	−0.0360	−0.0551	−0.0383	0.0096	0.7843*	1.00					
Flexible working schemes	−0.1087	−0.1325*	−0.0735	−0.0037	0.6643*	0.0811	1.00				
Value health safety policy	0.0105	0.0159	0.1614*	0.0417	0.6542*	0.0621	0.11197*	1.00			
Turnover of employees	−0.0104	−0.0348	0.0099	−0.0928	0.4532*	0.1395*	−0.0363	0.0861	1.00		
Total Assets	−0.0710	−0.0600	0.0006	−0.0024	0.1234	0.0447	0.1157*	0.0928	−0.0305	1.00	
Leverage	0.0592	−0.0175	−0.0219	−0.0231	0.2235	0.0705	0.0499	0.1162	0.6321	0.4211	1.00

Source(s): The authors

multicollinearity that would necessitate correction. Non-normal distribution of residuals and heteroskedasticity can bias standard errors, affecting hypothesis testing. The Shapiro and Breusch-Pagan tests were performed, and neither test indicated significant issues with non-normality or heteroskedasticity in the data. This confirms the robustness of the model's assumptions about residuals, further reducing potential biases.

4. Results

4.1 Results are shown in the following tables.

Table 4 presents the analysis of the relationship between a company's social dimension score and various measures of economic performance. The results indicate a positive association between investments in employee well-being and company value. Specifically, companies that prioritise well-being show higher values across multiple models, as reflected by Tobin's Q (column 1, $\beta = 2.177$, $p < 0.10$; column 2, $\beta = 0.0171$, $p < 0.10$; column 8, $\beta = 6.789$, $p < 0.10$). These findings suggest that firms investing in social sustainability practices, such as employee well-being, tend to have a higher market valuation, supporting HP1. Moreover, the analysis reveals that companies with higher well-being scores also demonstrate improved financial performance based on accounting measures. For instance, there is a statistically significant positive relationship between well-being investments and ROA (column 4, $\beta = 0.692$, $p < 0.10$). This indicates that beyond market valuation, firms with a stronger commitment to social sustainability are also more efficient in generating profits from their assets. The statistically significant results for both market-based (Tobin's Q) and accounting-based (ROA) performance measures strengthen the conclusion that a company's focus on the social dimension of sustainability positively influences its economic outcomes. This evidence confirms HP1, showing that higher investments in employee well-being are linked to better overall financial performance; indeed, effective management of employee well-being contributes materially to the productivity and profitability of the firm, thereby aiding in the achievement of organisational goals (Xu and Smyth, 2023).

Results of the impact of health and safety are shown in Table 5 (employee accidents), Table 6 (health safety policy) and Table 7 (employee turnover).

Regarding employee accidents, the analysis reveals no significant impact on Tobin's Q or Return on Equity. However, there is a notable negative influence on ROA, as indicated by the coefficients in columns 3 and 4 (column 3, $\beta = -0.000345$, $p < 0.10$; column 4, $\beta = -0.000870$, $p < 0.05$). This suggests that higher accident rates correlate with lower efficiency in utilising assets to generate profit, highlighting the importance of workplace safety in maintaining financial performance.

Turning to health and safety policies, the findings indicate a significant positive impact on accounting performance metrics. In columns 4, 5, and 6, the coefficients are notably high (column 4, $\beta = 3.655$, $p < 0.01$; column 5, $\beta = 7.935$, $p < 0.01$; column 6, $\beta = 6.528$, $p < 0.05$), suggesting that companies with robust health and safety policies tend to perform better financially in accounting terms. Conversely, the effects on market performance, as measured by Tobin's Q, appear relatively insignificant, indicating that while accounting measures respond positively to health and safety initiatives, the impact on market valuation is less pronounced.

Similar patterns emerge regarding employee turnover. The results indicate a negative relationship between turnover rates and accounting performance, with significant coefficients in columns 3 through 6 (column 3, $\beta = -0.0333$, $p < 0.10$; column 4, $\beta = -0.0615$, $p < 0.10$; column 5, $\beta = -0.226$, $p < 0.05$; column 6, $\beta = -0.109$, $p < 0.10$). This reinforces the notion that lower turnover rates contribute positively to financial performance, yet, like the previous metrics, the effects on Tobin's Q remain statistically insignificant.

Overall, these findings confirm HP2, which posits that a reduction in workplace-induced stressors, manifested through fewer accidents and lower turnover rates, alongside the implementation of effective health and safety policies, significantly enhances accounting

Table 4. S score results

Variables	Tobin 1 – Ols	Tobin 1 – FE	ROA -Ols	ROA – FE	ROE – Ols	ROE – FE	Tobin 2 – Ols	Tobin 2 – FE
S score	2.177*	0.0171*	0.171	0.692*	−13.42	3.290*	1.850	6.789*
	(6.149)	(6.202)	(2.255)	(2.038)	(10.02)	(4.212)	(3.826)	(7.066)
lnassets	4.636**	5.638*	0.138*	0.103*	0.341*	0.665	1.417***	1.819***
	(3.249)	(3.569)	(0.258)	(0.294)	(0.561)	(0.615)	(0.377)	(0.569)
leverage	0.0530*	0.0361*	−0.000560	−0.000152	−0.00264*	−0.000722	−0.00606*	−0.00746*
	(0.0665)	(0.0532)	(0.00238)	(0.00170)	(0.00602)	(0.00436)	(0.00313)	(0.00427)
Constant	53.43	72.84*	1,251	4,346	33.00*	6,800	19.57***	31.56***
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	251	251	250	250	248	248	251	251
R-squared	0.232	0.139	0.336	0.055	0.474	0.085	0.523	0.172

Note(s): ***, **, and * indicates statistically significant levels of 1%, 5% and 10%, respectively
Source(s): The authors

Table 5. Employee accidents results

Variables	Tobin 1 – Ols	Tobin 1 – FE	ROA -Ols	ROA – FE	ROE – Ols	ROE – FE	Tobin 2 – Ols	Tobin 2 – FE
Employee Accidents	−0.00188	−0.00358	−0.000345*	−0.000870***	−0.000349	0.00128	−0.000339	−0.000711
	(0.00367)	(0.00356)	(0.000629)	(0.000244)	(0.00181)	(0.000946)	(0.000993)	(0.000751)
lnassets	−6,796	−9.576*	0.222*	0.316**	0.337**	1.510**	1.896***	2.719***
	(4.299)	(5.071)	(0.229)	(0.342)	(0.495)	(0.620)	(0.567)	(0.883)
leverage	0.0456*	0.0270*	0.000900	0.00176	−0.00139	0.00232	−0.00734*	−0.00975*
	(0.0617)	(0.0480)	(0.00210)	(0.00205)	(0.00484)	(0.00253)	(0.00376)	(0.00535)
Constant	82.85	124.5*	−0.106	1,183	16.64	−8,547	23.59***	37.46***
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	185	185	222	222	218	218	185	185
R-squared	0.297	0.228	0.475	0.077	0.516	0.055	0.565	0.206

Note(s): ***, **, and * indicates statistically significant levels of 1%, 5% and 10%, respectively
Source(s): The authors

Table 6. Health safety policy results

Variables	Tobin 1 – Ols	Tobin 1 – FE	ROA -Ols	ROA – FE	ROE – Ols	ROE – FE	Tobin 2 – Ols	Tobin 2 – FE
Value health safety policy	10.76	−3.554	2.896	3.655***	7.935**	6.528**	3.428*	0.874
	(10.55)	(4.549)	(1.902)	(0.908)	(3.824)	(2.517)	(1.872)	(0.867)
lnassets	4.719	5.639	0.123**	0.159*	0.207*	0.876**	−1.485***	−1.890***
	(3.270)	(3.511)	(0.253)	(0.289)	(0.547)	(0.609)	(0.399)	(0.604)
leverage	0.0527	0.0361	−0.000726	3.61e−05*	−0.00546	−0.00175	−0.00639*	−0.00791*
	(0.0664)	(0.0534)	(0.00240)	(0.00176)	(0.00672)	(0.00395)	(0.00335)	(0.00461)
Constant	45.98	76.31	−1906	−0.765	10.61	−7,413	15.25***	25.21***
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	251	251	287	287	283	283	251	251
R-squared	0.234	0.139	0.408	0.064	0.423	0.054	0.524	0.161

Note(s): ***, **, and * indicates statistically significant levels of 1%, 5% and 10%, respectively
Source(s): The authors

Table 7. Turnover employee results

Variables	Tobin 1 – Ols	Tobin 1 – FE	ROA -Ols	ROA – FE	ROE – Ols	ROE – FE	Tobin 2 – Ols	Tobin 2 – FE
Turnover of employees	0.0824	−0.0577	−0.0333*	−0.0615*	−0.226**	−0.109*	0.00773	−0.0765
	(0.125)	(0.122)	(0.0425)	(0.0343)	(0.101)	(0.0917)	(0.0701)	(0.109)
lnassets	−5,882	−8.279*	0.234	0.238*	0.427**	1.080*	−1.722***	−2.504***
	(3.763)	(4.459)	(0.226)	(0.306)	(0.548)	(0.595)	(0.482)	(0.777)
leverage	0.0447	0.0294*	0.000770***	0.00164	−0.00220	0.00220	−0.00806*	−0.00867
	(0.0613)	(0.0489)	(0.00217)	(0.00192)	(0.00604)	(0.00298)	(0.00423)	(0.00548)
Constant	69.34	107.6*	−0.310	2,757	16.33	−1,100	21.07***	35.37***
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	213	213	250	250	246	246	213	213
R-squared	0.272	0.203	0.473	0.083	0.387	0.070	0.565	0.209

Note(s): ***, **, and * indicates statistically significant levels of 1%, 5% and 10%, respectively
Source(s): The authors

performance. Thus, addressing workplace-induced stressors becomes crucial for firms to maintain and enhance motivation (Long *et al.*, 2022), organisational commitment, and identification (Antino *et al.*, 2022), which in turn positively affects their performance outcomes.

In contrast, the findings regarding the impact of work-life balance, as illustrated in Table 8, indicate that flexible working schemes do not yield significant effects on either accounting or market performance. As a result, HP3, which suggests that flexible working arrangements lead to improved economic performance, is not supported by the data suggesting the complexity of inter-role interaction between work and non-work demands (Ribeiro *et al.*, 2023). This highlights a potential gap in the anticipated benefits of work-life balance initiatives, warranting further investigation into the conditions under which flexible working might influence organisational performance.

5. Discussion

The aim of this study was to investigate a model that assesses the impact of various elements of SSHRM, including enhancing employees' well-being, ensuring a healthy and safe workplace, and guaranteeing work-life balance, on the financial performance of organisations during the COVID-19 pandemic. Building upon the recognition of SSHRM's significance in promoting positive outcomes for employees and society, this research examined how these aspects contribute to organisational resilience and financial success during challenging times. The hypotheses testing of panel data from 132 listed Italian companies, covering the timeframe from 2019 to 2022, revealed interesting results to discuss.

Regarding our HP1, the study reveals a statistically significant positive association between a company's S Score, related to employees' well-being, and market-based proxies, specifically Tobin's Q. This suggests that companies with higher S Scores tend to perform better in terms of market valuation. Additionally, significant and positive relationships exist between the S Score and accounting-based performance measures. This implies that a strong S Score is linked to better financial performance as well. This observation suggests that investors and stakeholders value socially responsible practices and are willing to attribute higher market valuations to companies that prioritise social considerations. Moreover, this alignment between social responsibility and financial success supports the notion that ethical and sustainable business practices can positively contribute to a company's bottom line. As a result, our paper expands the limited research on this subject. It aligns with previous findings which support that human capital investments have a positive impact on company growth and performance (Bapna *et al.*, 2013). However, in order to enhance the understanding of the positive relationship between S Score and financial performance, it is important to consider external factors such as market conditions and industry-specific trends that may also influence these outcomes. Consequently, future research should take into account specific contextual variables in which these relationships hold.

Regarding our HP2, the study reveals that lower accidents, higher safety and lower turnover have a positive impact on company performance. Specifically, the findings in this section indicate that employee accidents do not have a notable impact on Tobin's Q and Return on Equity (ROE). However, there is a negative influence on a company's Return on Assets (ROA). This implies that while accidents may not directly affect market valuation or shareholder returns, they do have repercussions on asset efficiency and overall financial health. It is important to acknowledge that these findings may be influenced by other contextual factors, such as the overall economic trends or company size, which could affect the relationship between safety measures and financial outcomes. Regarding the influence of the health safety policy, the results suggest a significant impact on accounting performances. This underscores the importance of a health safety policy in enhancing financial reporting and possibly risk management. However, its effects on market performance seem to be relatively negligible, implying that investors may not heavily factor in health safety policies when

Table 8. Flexible working schemes results

Variables	Tobin 1 – Ols	Tobin 1 – FE	ROA -Ols	ROA – FE	ROE – Ols	ROE – FE	Tobin 2 – Ols	Tobin 2 – FE
Flexible working schemes	−3.387	−3.331	−1.250	−2.368	−3.486	−5.241	−1.073	−3.923*
	(5.137)	(7.298)	(1.420)	(1.691)	(3.705)	(3.295)	(1.807)	(2.228)
lnassets	4.441	5.639	0.204	0.136	0.431	0.846	−1.397***	−1.891***
	(2.964)	(3.518)	(0.247)	(0.255)	(0.538)	(0.532)	(0.379)	(0.611)
leverage	0.0550	0.0372	0.000118	0.000738	−0.00366	−0.000903	−0.00567*	−0.00660*
	(0.0694)	(0.0547)	(0.00227)	(0.00202)	(0.00577)	(0.00315)	(0.00321)	(0.00341)
Constant	52.97	74.88*	−0.108	4,381	15.54	2,344	17.48***	28.49***
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	251	251	287	287	283	283	251	251
R-squared	0.234	0.140	0.407	0.075	0.422	0.061	0.524	0.180

Note(s): ***, **, and * indicates statistically significant levels of 1%, 5% and 10%, respectively
Source(s): The authors

evaluating a company's market value. This raises questions about whether the perceived importance of such policies aligns with actual investor behaviour, indicating a potential disconnect that warrants further investigation.

Additionally, the findings related to the turnover of employees highlight that it has a notably negative impact on ROA and ROE. This indicates that a high employee turnover adversely affects both asset efficiency and shareholder return. Interestingly, its effects on Tobin's Q seem to be relatively insignificant, suggesting that market investors may not be as sensitive to employee turnover when assessing a company's value. This discrepancy might reflect differing investor priorities, where short-term financial metrics take precedence over operational factors. Overall, these findings confirm that the investment in employees' health and safety not only promotes innovation and performance but also alleviates turnover rates (Islam *et al.*, 2022). Nonetheless, further research should explore the nuances of these relationships, including how industry-specific factors may shape the impact of health and safety policies on financial performance.

Finally, HP3 is not confirmed by the study. The results regarding the impact of flexible working schemes show that they do not have a discernible impact on accounting and market performances. This suggests that, at least in the context of this study, the presence of flexible working schemes does not significantly influence financial reporting or market valuation. However, it is essential to consider that these results may be influenced by factors such as the duration of flexible work implementation, employee engagement levels, or the nature of the industry. This study affirms Todisco *et al.*'s (2023) theory, asserting that despite the flexibility-related advantages associated with smart working, there are significant risks linked to its excessive use. While flexible working can enhance employee satisfaction and work-life balance, it can also lead to challenges such as blurred boundaries between work and personal life, which may ultimately undermine productivity and performance. Thus, future research should explore these nuanced dynamics and consider potential factors that could influence the effectiveness of flexible working schemes. By doing so, researchers can better understand the contexts in which these arrangements yield positive outcomes, thereby contributing to a more comprehensive understanding of their impact on financial performance.

6. Conclusions, theoretical and practical implications

In conclusion, this research paper has provided valuable insights into the intricate interplay between strategic value of investments in human resources through a socially sustainable approach and their critical role in strengthening organisational resilience and driving distinct performance metrics within organisations.

First, our study contributes theoretically to the development of the SSHRM literature (Malik and Singh, 2024) by addressing a notable gap in existing research, specifically in understanding how SSHRM influences organisational outcomes, particularly during crises like the COVID-19 pandemic. While prior studies have often emphasised the impact of overarching sustainable business practices on financial performance (Lu *et al.*, 2022), there remains a significant oversight regarding the direct contributions of employees to organisational success within sustainability discussions (Rodríguez-Sánchez *et al.*, 2021; Zhang *et al.*, 2024). By focussing on the specific aspects of SSHRM, such as improving employees' well-being, ensuring a healthy and safe workplace, and guaranteeing work-life balance, our research elucidates the critical role of human capital in bolstering organisational economic performance and enhancing resilience against crises (Zhang *et al.*, 2024). This theoretical contribution underscores the importance of incorporating SSHRM strategies into organisational frameworks, particularly in times of crisis like the COVID-19 pandemic, thus advancing and underscoring the importance of SSHRM strategies in fortifying organisations against external shocks, thereby strengthening their adaptive capacity and long-term stability.

Second, the study has successfully illuminated the positive correlation between a robust S Score and superior financial performance, shedding light on the significance of this metric in evaluating a company's economic proficiency. Additionally, the adverse effects of high employee turnover on asset efficiency and shareholder returns underscore the importance of strategic human resource management in achieving sustained success. While previous studies have often focussed on environmental or governance factors in the ESG (Environmental, Social, Governance) framework, this study highlights the overlooked importance of the "S" in driving financial outcomes. By providing empirical evidence that a strong S Score correlates with improved financial performance, the research advances our understanding of how socially responsible human resource practices not only benefit employees but also contribute to an organisation's economic vitality (Zhang *et al.*, 2024; Lu *et al.*, 2022). This insight is particularly valuable for scholars interested in the intersection of sustainability and financial performance, suggesting that social sustainability is a vital component of strategic success in today's business environment. Indeed, our findings reinforce the argument that socially sustainable HRM plays a pivotal role in enhancing organisational resilience, as companies that prioritise social sustainability demonstrate greater adaptability and stability in the face of economic and operational uncertainties.

Third, this research makes a distinctive contribution to existing literature through its exploration of the investment in human capital in bolstering economic performance, providing a more comprehensive understanding that has not been extensively studied in current scholarly discourse (Zhang *et al.*, 2024). The findings presented here align with the results found in prior research related to the role of sustainability strategy as an "insurance"-like protection from economic downturns (Lu *et al.*, 2022), emphasising the intrinsic value of sustainable management of employees within an organisation, confirming that the cultivation of human capital within a company not only fosters performance but also mitigates turnover rates (Islam *et al.*, 2022). By positioning human capital investment as a critical driver of long-term performance, this study highlights how human resource management—especially within the framework of SSHRM—has a direct influence on financial outcomes. Prior research has acknowledged the role of SSHRM in improving organisational resilience, yet the direct relationship between human capital management and economic performance remains underexplored (Zhang *et al.*, 2024). Our study addresses this gap by demonstrating that investments in employee well-being, workplace safety, and work-life balance not only yield financial benefits but also equip organisations with the necessary tools to withstand economic disruptions, enhancing their resilience in an increasingly volatile business environment.

Finally, it is noteworthy that, in contrast to general indications in prior research suggesting higher productivity for companies adopting flexible working schemes (Angelici and Profeta, 2023), this study emphasises the yet unclear impact of such schemes on overall company performance. This element adds an essential layer to the existing body of knowledge, signalling the need for further exploration and a refined understanding of the effects of flexible working arrangements on organisational outcomes. Thus, this study's findings highlight the importance of developing a more refined understanding of how flexible working arrangements interact with other organisational factors. While flexible schemes are often lauded for improving employee satisfaction and work-life balance, their broader effects on key performance indicators like profitability, productivity, and operational efficiency remain ambiguous. This gap in understanding calls for further empirical research to explore the conditions under which flexible working leads to tangible benefits for companies and when it may introduce unforeseen challenges. Moreover, given the increasing prevalence of hybrid and remote work models, understanding their implications for organisational resilience is crucial. Future research should examine how flexible work arrangements contribute to, or hinder, an organisation's ability to adapt and thrive in crisis contexts.

For practitioners, the insights from this research offer actionable strategies for improving financial performance, emphasising the significance of cultivating a positive safety culture and addressing employee turnover. By acknowledging these findings, companies can refine their practices, enhance their financial resilience and foster a more sustainable and prosperous future. Specifically, our findings highlight not only the importance of sustainability initiatives and actions concerning social capital in fostering enduring relationships with employees but also their pivotal role in enhancing organisational resilience. Particularly during challenging times like the ones we currently face, such as the pandemic and international geopolitical instability, organisations need to prioritise strategies that promote resilience. Integrating social sustainability goals into the organisation's strategic plan becomes even more critical in this context.

Indeed, in order to enhance organisational performance and resilience, companies should focus on three key areas: workplace safety, employee retention, and the integration of sustainability into business practices. First, regular safety audits, combined with continuous employee feedback loops, allow companies to identify potential hazards and make necessary improvements in a timely manner. A proactive approach to safety not only prevents accidents and ensures compliance with regulations but also boosts employee morale. When employees feel safe and valued, their productivity and engagement increase, leading to overall better financial performance. In addition to safety, retaining talent is essential for long-term success. Organisations should invest in proactive employee retention strategies, such as career development programs and well-being initiatives. These efforts help address employee turnover before it becomes a problem, reducing the costs associated with recruitment and training. By prioritising employee growth, satisfaction, and well-being, companies can build a loyal and motivated workforce, which is vital for maintaining operational stability and driving future success. Equally important is the integration of sustainability goals into the company's core operations. Management should embed social sustainability objectives, such as employee well-being and community engagement, into key performance indicators (KPIs). Tracking and incentivising these goals ensures that sustainability is not an afterthought but a fundamental aspect of business strategy. In doing so, companies not only enhance their reputation but also align long-term business success with positive social impact.

By embedding resilience-enhancing practices into their HR strategies, organisations can better navigate periods of uncertainty, sustain workforce engagement, and ensure long-term viability. This study highlights that a strategic approach to SSHRM strengthens an organisation's ability to endure crises, reinforcing the critical role of human capital investments in ensuring business continuity and success. Thus, ensuring the incorporation of social sustainability objectives into decision-making processes not only fosters enduring relationships with employees but also bolsters organisational resilience, enabling businesses to withstand adversity and emerge stronger from crises.

However, it is crucial to acknowledge the limitations of this research. Firstly, the study focusses on a single country due to the availability of data and the quality of the human resources system. However, future research could expand the scope by incorporating additional data sources, such as those provided by the European Corporate Sustainability Reporting Directive (CSRD). This initiative is anticipated to significantly enhance the comparability of data across European countries, thereby improving the generalisability of the findings. By leveraging the CSRD, researchers will be better positioned to explore the impact of various factors on financial performance across diverse contexts. Moreover, the scope of this study may not encompass all possible variables influencing organisational performance, and the specific industry context may introduce unique dynamics that were not fully explored. Future research endeavours should consider broadening the scope to capture a more comprehensive array of factors and industry-specific factors.

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About the authors

Andrea Caputo is Professor of Strategy and Negotiation at the University of Lincoln, UK, and Associate Professor of Management at the University of Trento, Italy. He received his PhD from the University of Rome Tor Vergata, Italy. His award-winning research was published in over 100 contributions concerning entrepreneurial decision-making, negotiation, digitalization and sustainability, internationalization and strategic management of SMEs. Since 2021 he has been ranked among World's Top 2% Scientists List of outstanding researchers prepared by Elsevier BV, Stanford University, USA. He is Editor-in-Chief of Strategic Change (Wiley) and J of Enterprising Communities (Emerald), editor of the "Entrepreneurial Behaviour" Emerald book series, and Associate Editor of J of Management and Organisation, Business Ethics, the Environment and Responsibility, Management Decision and BRQ Business Research Quarterly. Andrea Caputo is the corresponding author and can be contacted at: andrea.caputo@unitn.it

Alberto Tron is Professor of Corporate Finance at the Mercatorum University of Rome and Adjunct Professor of Corporate Finace at Bocconi University, Milan. He received his PhD from the University of Lincoln (UK). His research was published in over 70 contributions concerning corporate financial distress, restructuring, turnarounds, derivatives, risk management, digitalization and sustainability, internationalization and strategic management of SMEs. He is Editorial Board Member of Strategic Change (Wiley). He is member of the Comitato Tecnico Principi Contabili (member of the Accounting Principles Technical Committee) of the Organismo Italiano Contabilità (Italian accounting standard setter) and Chief of the Financial Reporting Standards of ANDAF (Italian Asosciation of CFOs).

Sara Sassetti is Assistant Professor at University of Pisa. She received her PhD in Management in 2018 from the University of Pisa. Her main research field relates to entrepreneurial decision-making, students 'employability, and HRM. She works and collaborates with Southampton Business School. She is a member of EURAM (European Academy of Management) and co-proponent for the EURAM

entrepreneurship standing track "Entrepreneurial Decision Making and Behaviour". Sara is also associate editor of the Journal of Enterprising Communities.

Anastasia Giakoumelou is a Researcher in Management (RTDb) at the Department of Economics and Management of the University of Venezia and Adjunct Professor of M&A at Bocconi University.

Federico Colantoni is a Researcher at the Finance area of SDA Bocconi and a PhD student in Accounting at the University of St. Gallen in Switzerland. His main research interests concern Real Estate Finance, Corporate Finance and Corporate Crisis. He gained several experiences in the private equity sector and currently works with a consulting firm where he has developed particular expertise in defining tax and corporate structures, M&A and corporate restructuring projects, and drafting sustainability reports.