

THE PERCEPTION OF CORPORATE SUSTAINABLE DEVELOPMENT: INVESTIGATING THE EMPLOYEE PERSPECTIVE

Erika-Ligia HELER*

*Doctoral School of Economics and Business Administration, West University of Timișoara,
Timișoara, Romania*

erika.heler@e-uvt.ro

Abstract: *This paper endeavors to assess the overall level of employees' perception of corporate sustainable development (CSD) across its three defining dimensions – economic, social, and environmental. Variations in the perceived significance based on individual and professional characteristics among employees are additionally identified. The research methodology involves conducting Structural Equation Modeling (SEM) based on the information collected from a survey distributed to employees of companies operating in the information and communication technology (ICT) sector within Romania's Western region. The findings affirm a direct, restrictive and positive impact of employees' socio-professional characteristics on their perception of CSD.*

Keywords: corporate sustainable development; employees' perception; economic, social and environmental dimensions; structural equation modeling

JEL classification: M12, Q01, Q56.

1. Introduction

Corporate sustainable development denotes the progress achieved through favourable performance across an organisation's economic, social, and environmental dimensions. To this end, numerous organisations are developing and implementing initiatives to achieve the sustainable objectives set for the organisation, aiming to meet the needs of various stakeholders. Employees assume a pivotal role in driving CSD. How employees perceive sustainability initiatives can exert a substantial influence on their subsequent engagement to implementing them. Therefore, this research aims to approach the topic under investigation as a perceptual phenomenon, in an attempt to capture the concept of CSD, perceived from the perspective of employees as internal stakeholders, rather than the actual activities subordinated to it and carried out at the organisational level.

This paper is structured into four primary sections. The first section provides a concise overview of the topic. The second section involves a critical examination of the literature concerning the concept and dimensions, as well as the determinants of CSD in relation to employees' perception. The third section details the quantitative analysis conducted using advanced research methodology and statistical processing, utilizing a comprehensive set of indicators. The fourth section presents the findings, the theoretical and practical ramifications of the undertaken research endeavor as well as the recommendations for prospective research paths.

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2. Literature Review

2.1. The Dimensions of Corporate Sustainable Development

The Triple Bottom Line concept introduced by Elkington in 1997 upholds the harmonious advancement of the economic, social, and environmental facets within organisations to yield sustainable results, thus incorporating economic prosperity, social equity and environmental protection. Presently, this concept stands as one of the most extensively employed approaches for revealing and implementing the corporate evolution paradigm (Nunhes et al., 2022). Sustainability transcends mere compliance with moral and legal standards to optimize the well-being of a diverse array of stakeholders, as emphasized by Freeman et al. (2020). Engaging in sustainable behaviors inherently entails an organisation's responsibility to posterity, necessitating a conceptual, ethical outlook in the long run. This may involve reconciling immediate advantages for one group of stakeholders with enduring ones for a different set of stakeholders, as discussed by Bhattacharya et al. (2022). Within the economic dimension, challenges include retaining intellectual assets, maintaining sustainable cost structures and profit margins, ensuring sustained measures for innovative competitiveness, and aligning economic considerations with the principles of societal and environmental resources. Regarding the social dimension, this entails the well-being of human capital, and includes both physical and psychological health and safety, as well as competencies and learning that determine the ability to produce additional value for both the organisation and society at large. Within the environmental dimension, there are two facets of natural resources: essential natural resources, indispensable for sustaining the continuous functioning of ecosystems, alongside sustainable natural resources, that have the ability to be regenerated, such as reclaiming desertified areas or transitioning from fossil fuel energy to alternative energy sources (Elkington, 1997; Nunhes et al., 2022).

2.2. Determinants Influencing Employees' Perception of Corporate Sustainable Development

Empirical research suggests employee influence on specific sets of factors defining the three dimensions of CSD. Within the economic dimension, the most important determinants pertain to job performance of employees linked to the economic performance of the organisation and the proposals submitted by employees for enhancing processes, products and services, which are associated with their innovative capabilities. Customer data privacy protection is a pivotal element in building and enhancing connections with an organisation's customers. Employee groups, particularly those in specialized procurement departments, can exert influence on procurement optimization through decisions related to the organisation's suppliers (Ruiz-Pérez et al., 2021). Various factors such as occupational health and safety, employee well-being and development have been identified as essential elements in professional practice, following the principles of sustainable corporate social development (Sánchez-Hernández et al., 2021). Fostering and sustaining connections among employees enhances job satisfaction and positively impacts the organisation. Ensuring unrestricted access to learning and development resources, coupled with targeted training programs, is essential for fostering sustainable human capital development and promoting enduring employee behavior. Organisational culture shapes employees' perceptions of sustainable organisational practices (Espasandín-Bustelo et al., 2020). Within the environmental context, the impact factors comprise the efficient utilization of resources and the mitigation of environmental repercussions stemming from processes, products, and services provided (Ruiz-Pérez et al., 2021). Adopting sustainable management practices positively influences organisational performance (Wang et al., 2020). Furthermore, employees' perception of sustainable organisational practices enhances organisational performance by nurturing employees' intrapreneurial behavior (Luu, 2020).

Table 1. Determinants of corporate sustainable development

Determinants of Economic Dimension	Determinants of Social Dimension	Determinants of Environmental Dimension
Financial Performance	Occupational Health and Safety	Circular Use of Resources
Optimizing Profitability	Employee Interactions	Environmental Impact
Customer Interactions	Human Capital Development	Sustainable Supply Chain
Quality of Products and Services	Work Schedule	Innovation of Products and Services
Pricing Policy	Organisational Culture	Renewable Energy

Source: Own processing according to literature (Ruiz-Pérez et al., 2021; Sánchez-Hernández et al., 2021; Espasandín-Bustelo et al., 2020; Wang et al., 2020; Luu, 2020)

2.3. Structural Equation Modeling

Structural Equation Modeling constitutes an inclusive statistical method employed to concurrently depict, estimate, and assess the connections established among the observed endogenous variables and the latent independent variable constructs within a statistical model.

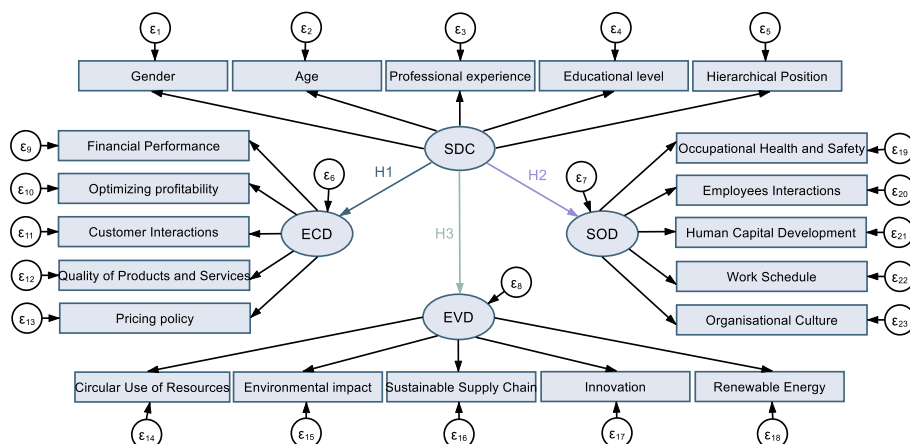


Figure 1. SEM Model Configuration. Latent variables: SDC = Socio-demographic characteristics; ECD = Economic dimension; SOD = Social dimension; EVD = Environmental dimension.

Source: Own elaboration in Stata 18.

The model specification is rooted in diverse theoretical frameworks pertinent to a given subject and a characteristic research approach. SEM enables the testing of hypotheses by examining the predetermined theoretical network of relationships among the variables incorporated in the specified model, explicitly determining the standard errors of the coefficients. Globally recognized, SEM serves as a robust analytical method applicable across various disciplines such as management, economics, environmental science and engineering, social sciences, education, and beyond, making it well-suited for evaluating diverse trends (Stata, 2023). The SEM model depicted in Figure 1 is employed to discern the relationships established among the four latent and 20 observed variables encompassed in the four sections of the research approach. Specifically, it explores the influence of socio-professional characteristics (SDC) on employees' perceptions of the economic (ECD), social (SOD), and environmental (EVD) dimensions regarding CSD.

3. Methodological Approach

The main objective of this research endeavor is to uncover and assess the extent of CSD perception among employees within the ICT sector.

Research objectives:

1. Determine the overall extent of employees' perception of CSD across its three dimensions: economic, social, and environmental.
2. Examine the variations in perceptions of CSD based on the socio-professional attributes of employees.

Research hypotheses:

H1: The socio-professional characteristics of employees, such as gender, age, professional experience, education level, and hierarchical position have a direct impact on their perception of the economic dimension of CSD.

H2: The socio-professional characteristics of employees, such as gender, age, professional experience, education level, and hierarchical position have a direct impact on their perception of the social dimension of CSD.

H3: The socio-professional characteristics of employees, such as gender, age, professional experience, education level, and hierarchical position have a direct impact on their perception of the environmental dimension of CSD.

To achieve this objective, we conducted a quantitative analysis by reviewing the results of a survey administered to personnel employed by companies within the ICT sector situated within Romania's Western region. Subsequent to the examination of the collected responses, a dataset with 105 valid responses was confirmed. The distribution of the survey was facilitated through digital communication platforms (specifically, Google Forms), and the data collection occurred from February to March 2023. The survey is structured into four distinct sections, each of which comprises five individual items, thereby yielding a cumulative set of 20 questions. The items were formulated based on the specific determinants defined in section 2.2 for each dimension of CSD.

4. Results and Discussion

Figure 2 illustrates the distribution of weights for the socio-demographic traits derived from the survey. Based on the findings, 24 % of respondents were female and 76 % were male. Regarding age groups, 16 % were Generation Z (18–28 years), 65 % were Millennials (29–43 years), 18 % were Generation X (44–58 years), and 1 % were Baby Boomers (over 58 years). This demographic breakdown mirrors the prevailing characteristics within the IT industry: predominantly male, skewed towards younger and middle-aged individuals, with seniors being less represented numerically. The distribution of professional experience in the current organization is as follows: 58 % of respondents possess professional experience ranging from 1–5 years, 25 % ranging from 6–10 years, 9 % ranging from 11–15 years, 7 % ranging from 16–20 years, and 2 % over 20 years of professional experience. This breakdown reflects a predominantly young workforce and the fluidity of job transitions in the sector. Regarding education levels, 56 % of respondents hold a Bachelor's degree, followed by 44 % with a Master's degree. This distribution indicates the sector's emphasis on higher education qualifications among its workforce. Regarding hierarchical positions, 73 % of respondents hold execution positions, while 27 % assume management roles. These percentages reflect industry-specific hierarchical structures, such as network setups, where team members report to multiple coordinators, fostering flexible decision-making processes.

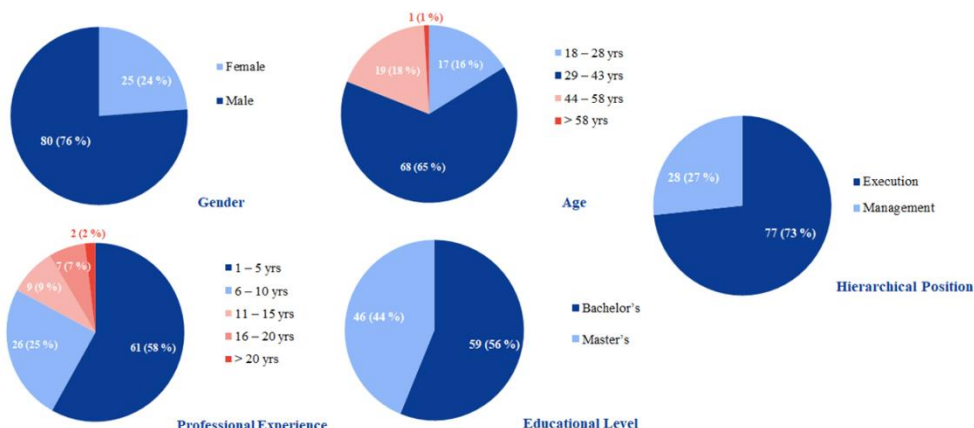


Figure 2. Statistics of respondents' socio-demographic characteristics. Author's analysis/processing based on own data.

The statistical method used for hypothesis testing is based on the application of structural equation modeling (SEM). The proposed SEM model and diagram were designed according to the previously formulated hypotheses and processed using the maximum likelihood estimator (MLE). Model estimation was performed using the software package for statistical processing of scientific data, Stata version 18 (2023). The SEM model presented below (Fig. 3) is used to identify the relationships established between the four latent variables included in the research approach, namely the influence of socio-demographic characteristics (SDC) on employees' perceptions of the economic (ECD), social (SOD), and environmental (EVD) dimensions. The SDC section identifies the socio-demographic characteristics of respondents, covering: gender, age, work experience within the current organization, education level, and current hierarchical position. It consists of 5 items in total. The ECD section aims to identify employees' perception of CSD related to the economic dimension. It comprises 5 items in total. The SOD section endeavors to assess employees' perception of CSD concerning the social dimension, consisting of 5 items in total. The EVD section attempts to acknowledge employees' perception of CSD corresponding to the environmental dimension, comprising a total of 5 items. The robustness tests of the SEM model indicate a moderate model fit, as evidenced by the CFI („Comparative Fit Index“) and TLI („Tucker-Lewis Index“) values of 0.59 and 0.54, respectively. Furthermore, in more than 83 % of cases, the fluctuations in endogenous variables can be explained by exogenous variables, as illustrated by the Coefficient of Determination (CD), highlighting a strong link between observable and latent variables. The Cronbach's Alpha Test results affirm an optimal level of significance with a total scale value of 0.77, alongside no concerns regarding convergent and discriminant validity.

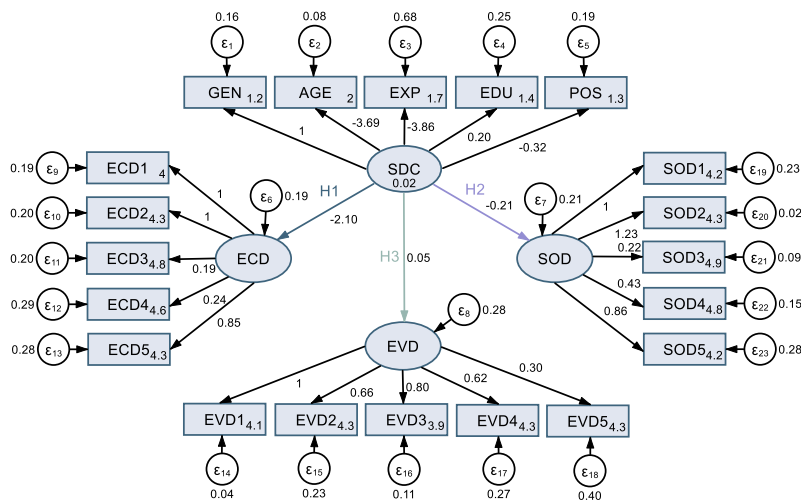


Figure 3. Results of the SEM Model.
 Source: Own processing in Stata 18.

Among the analyzed variables within the SDC construct, the variable „Gender“ stands out with a highly significant coefficient (GEN = 1***; $p < 0.001$). The variables „Age“ and „Professional Experience“ exhibit substantial coefficients and considerable statistical significance (AGE = -3.69**; EXP = -3.86**; $p < 0.01$), with the negative sign indicating an important inhibitory impact. Conversely, „Education Level“ exerts the lowest influence (EDU = 0.20; $p > 0.05$), while „Hierarchical Position“ (POS = -0.32; $p > 0.05$) makes a minor inhibitory contribution within the construct, both lacking statistical significance.

The SDC construct imposes a notable and constraining influence (coefficient = -2.10**), a direct but less inhibitory impact (coefficient = -0.21), and a more pronounced direct positive influence (coefficient = 0.05) on employees' perception levels of the economic, social, and environmental dimensions. Considering H1 outlined earlier, it is affirmed a direct and significantly restrictive effect of employees' socio-demographic traits, such as gender, age, professional experience, education level and hierarchical position, on their perception of the economic dimension, further validated by the strong statistical significance of the coefficient associated with the economic dimension (ECD; $p < 0.01$). These findings indicate that female employees express a higher level of perception of sustainable economic objectives implemented at the organizational level and therefore exert a more pronounced influence on the economic dimension. Similarly, older employees tend to engage more in sustainable behaviors due to their robust values regarding responsible job performance, conscientiousness, and agreeableness, resulting in more frequent resource-conserving practices with a positive environmental impact. Likewise, employees with extensive professional experience tend to perceive and influence sustainable economic goals to a greater degree within the organization. The significant percentage of employees with higher education has a comparatively lesser differentiation impact compared to other socio-professional criteria. This result does not contradict, but rather indicates that employees with higher levels of education are more likely to promote and positively support corporate sustainable development goals. Regarding the restrictive but reduced influence observed in the hierarchical position variable, on one hand, there is a high proportion of respondents in management positions, and on the other hand, the specific hierarchical structures within the industry sector allow for efficient distribution and a high degree of transparency of information. Consequently, the differentiation impact of this criterion, as well as the information asymmetry associated with the hierarchical level held, is found to be lower compared to other socio-professional criteria. Regarding H2 and H3, it is established that

employees' socio-demographic traits, such as gender, age, professional experience, education level and hierarchical position, have a direct, positive influence with relatively fewer restrictions on their perception of the social and environmental dimensions. However, H2 and H3 are only partially validated due to the limited statistical significance of the coefficients associated with the social (SOD; $p > 0.05$) and environmental (EVD; $p > 0.05$) dimensions of CSD.

4.1. Theoretical Ramifications of the Research Approach

Corporate sustainable development is a comprehensive approach that acknowledges the interconnectedness among its three defining dimensions – economic, social, and environmental. It underscores the integration of sustainability principles into business strategies and practices, engaging stakeholders and promoting long-term prosperity while considering social and environmental impacts. Embracing and implementing the concept of CSD allows organisations to facilitate the establishment of resilient and inclusive infrastructures, achieving competitive advantage and generating sustainable value. Employees exhibit a positive perception of CSD when they are aware of and understand their organisation's sustainable initiatives. Professional commitment is enhanced when employees sense a strong organisational commitment to sustainable development, aligning with their individual values.

The analysis of the results uncovered a substantial and constraining impact of employees' socio-professional characteristics, such as gender, age, and professional experience, on their perception of CSD. These factors notably contribute to the variation in perceptions regarding the significance of economic, social, and environmental sustainability objectives endorsed at the organisational level. Female employees typically exhibit a heightened perception of CSD. Older employees with substantial organisational experience perceive the importance of sustainable economic objectives more keenly. Conversely, younger generations display stronger tendencies towards the significance of sustainable social and environmental goals. These findings align with prior research regarding varied individual perceptions influenced by intrinsic factors such as gender, age, and professional experience. These factors can either enhance or diminish perceptions of CSD. Notably, female employees exhibit higher levels of sustainable awareness across economic, social, and environmental dimensions, a trend consistent with existing literature (Rosati et al., 2018). This literature also indicates that female employees tend to have a heightened awareness of environmental degradation and are more inclined to adopt socially and environmentally sustainable practices.

The variable „Age“ similarly exerts a notable influence, with older employees demonstrating distinct individual and professional values that shape pronounced tendencies and habits in engaging with sustainable behaviors. This observation aligns with findings in the current literature (Wiernik et al., 2016).

Moreover, the variable „Professional Experience“ within the current organisation emerges as the most influential factor in shaping employees' perceptions of the significance of sustainable economic goals. This influence is directly proportional and exhibits a positive correlation with the accumulated level of work experience. Consequently, individuals with substantial organisational tenure tend to hold a heightened perception of the importance of sustainable objectives.

4.2. Practical Ramifications of the Research Approach

Positive perceptions of CSD contribute to increased emotional and professional motivation among employees. Genuine recognition of the corporate commitment to sustainable practices supports the process of relating, where individuals identify with the collective organisational identity, fostering employee commitment and individual contributions to CSD efforts. Positive perceptions of CSD thus contribute also to the enhancement of employee

job satisfaction. Effective communication and transparency about sustainable initiatives are key to shaping employee perceptions, as transparency builds trust and fosters positive perceptions of CSD.

The practical implications yielded by the research approach emphasize the need to enhance the focus on how employees perceive sustainable initiatives implemented at the organisational level. Concerning the economic dimension, employees exhibit a more favorable perception of establishing goals for continuous improvement in financial performance and maximizing profits to ensure sustained business continuity. Enhancing performance within the economic dimension involve fostering a greater understanding among employees about their contributions to attaining sustainable organisational economic objectives. An effective approach could be to communicate and track individual objectives that align with the accomplishment of sustainable economic goals at the departmental, divisional, or organisational level.

Within the social dimension, employees perceive the organisation's commitment to the physical, mental, and social well-being of its workforce, as well as its support for fostering relationships among employees, promoting team spirit, and cultivating a sense of belonging, in a positive light. It is crucial for organisations to prioritize and advocate for a healthy work-life balance, establishing clear boundaries regarding organisational expectations and employee readiness to fulfill them. Fostering open communication, offering resources and support, and cultivating a balanced work environment can mitigate negative perceptions, contributing to a sustainable and gratifying work experience for employees.

Within the environmental dimension, employees hold a more favorable perception of the effectiveness of circular resource utilization in operational processes and the responsible sourcing achieved through a sustainable value chain. In cases where organisations fail to communicate their commitment to sustainable practices effectively, employees may not grasp the significance or importance of implementing such measures. Hence, the utilization of explicit and consistent communication channels, enhancing the accessibility of information, proves crucial in keeping employees informed about the organisation's environmentally responsible initiatives.

Employee perceptions of CSD significantly influences the success of organisational efforts in implementing sustainable initiatives. The extent of employees' awareness and comprehension of sustainable development initiatives within the organisation can notably affect their perception and subsequent active involvement in sustainable activities.

4.3. Constraints and Potential Future Research Directions

Assessing the extent of employees' perception of CSD presents an intricate challenge due to the subjective nature of perception, which shapes the individual interpretation and evaluation of sustainable initiatives.

The concept of CSD encompasses diverse dimensions, such as economic, social, and environmental. Consequently, constructing dependable models and tools to evaluate and validate the comprehensive level of perception by aggregating multiple determinants defined for each dimension may encounter limitations in accurately capturing the intricate structure of employee perceptions.

Recommendations for future research directions broadly point to leveraging alternative data sources, employing supplementary research methodologies, or applying suitable analytical techniques to address these limitations. While questionnaires and other quantitative research methods are frequently employed to evaluate employee perceptions, they might not encompass the complete range and depth of employee experiences and perspectives. Qualitative research approaches like interviews or focus groups could offer more nuanced insights, although findings may be limited in terms of generalizability. Therefore, it is advisable to combine qualitative and quantitative analysis methods to enhance the overall strength and reliability of the results.

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Bio-note

Erika-Ligia Heler is a PhD student in Management at Doctoral School of Economics and Business Administration within the West University of Timișoara. Her present research centers on examining employees' perceptions of corporate sustainable development, with the objective of understanding its potential impact. Actively participating in scholarly pursuits, such as conference attendance and paper publication, she endeavors to make substantive contributions to her field of study and its broader implications.