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SUSTAINABLE LEADERSHIP IN THE CONTEXT OF CHALLENGES FACING THE POLISH IT SECTOR

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Purpose: The aim of the paper is to identify and conceptualize the role of sustainable leadership as a response to the contemporary challenges of the IT sector in Poland, and to explain the mechanisms through which leadership practices may influence the level of employees' organizational commitment.
Design/methodology/approach: The paper is theoretical and conceptual in nature and is based on a review of the literature in the fields of management and quality sciences, leadership, and human resource management. The analysis adopts an integrative approach combining multiple theoretical frameworks, which allows for a multi-perspective examination of the relationships between leadership practices and the employee–organization relationship in the IT sector.
Findings: Sustainable leadership may constitute a significant factor in strengthening employees' organizational commitment by shaping a work environment based on trust, autonomy, opportunities for development, and social responsibility. This fosters employment stability, reduces employee turnover, and supports the development of long-term organizational effectiveness.
Research limitations/implications: A limitation of the study is its theoretical nature and the lack of empirical verification of the proposed relationships. The analysis is based on a review of the literature and a synthesis of concepts, which requires further validation through quantitative and qualitative research.
Practical implications: Organizations in the IT sector can strengthen employees' commitment by implementing sustainable leadership practices, including fostering a culture of trust, increasing employee autonomy, supporting competence development, and incorporating principles of social responsibility.
Social implications: The adoption of sustainable leadership practices may contribute to improving the quality of the work environment, increasing employment security, and fostering the development of responsible management models in the IT sector. From a broader perspective, this may support labor market stability, enhance employee well-being, and promote sustainable development.
Originality/value: The value of the article lies in integrating the concept of sustainable leadership with an analysis of the specific characteristics of the IT sector in Poland, as well as in synthesizing various theoretical perspectives explaining the mechanisms shaping employees' organizational commitment. The article provides a structured conceptual foundation for future research and advances the discussion on the role of leadership in the long-term management of human capital in organizations.

Keywords: sustainable leadership, organizational commitment, IT sector, human resource management, leadership in organizations.
Category of the paper: Research paper, Conceptual paper.

1. Introduction

Contemporary organizations operate under conditions of dynamic technological change, increasing competition, and evolving employee expectations toward the work environment (Northouse, 2021; Wilkinson, 2023). A particularly illustrative example of these processes is the IT sector in Poland, which is characterized by high knowledge intensity, a project-based nature of work, and significant mobility of specialists (Orzechowski, 2011; Saba et al., 2023). In such conditions, traditional leadership approaches focused primarily on short-term economic efficiency prove insufficient in addressing challenges related to maintaining employment stability, building durable organizational relationships, and strengthening employees' organizational commitment (Kotter, 1990; Meyer, Allen, 1991). Increasing attention is therefore being paid to the concept of sustainable leadership, which integrates the economic, social, and environmental dimensions of organizational functioning (Avery, Bergsteiner, 2011; Di Fabio, Peiró, 2018). This approach assumes a long-term management perspective, the development of human capital, and the creation of an organizational culture based on trust, participation, and responsibility. The aim of this article is to present the role of sustainable leadership as a response to the challenges of the IT sector in Poland. The study is based on a critical review of the relevant literature. The analysis is theoretical and conceptual in nature and seeks to demonstrate how sustainable leadership practices can support the development of technology organizations and strengthen relationships between leaders and employees in the context of the digital economy.

2. The concept of sustainable leadership

Sustainable leadership represents a development of contemporary streams of leadership research, in which the emphasis shifts from short-term economic efficiency toward the long-term creation of value for the organization and its stakeholders (Avery, Bergsteiner, 2011; Di Fabio, Peiró, 2018). In the management sciences literature, it is emphasized that technological changes, increasing organizational complexity, and growing societal expectations toward businesses foster the search for leadership models that integrate economic, social, and environmental dimensions (Hargreaves, Fink, 2012). At the same time, the concept of leadership itself remains ambiguous, being defined as a process of social influence,

a relationship of influence, or a set of competencies enabling the inspiration of others toward achieving shared goals (Yukl, 2013). From this perspective, sustainable leadership does not negate earlier concepts but rather extends them (Northouse, 2021). Contemporary research highlights that leadership effectiveness depends not only on organizational structures but also on the quality of social relationships and the ability to build a shared vision of action (Kotter, 1990). Organizations are increasingly moving away from hierarchical models, which supports viewing leadership as a process co-created by leaders and team members (Rok, 2009). In this context, trust, transparency of decision-making, and the ethical dimension of management gain particular importance (Schein, 2010). The literature indicates that leadership based solely on formal authority does not foster the development of durable relationships or the strengthening of positive employee attitudes (Gupta, Bhaskar, 2016). The evolution of leadership theory has progressed from trait-based approaches, through behavioral and situational models, to concepts emphasizing shared responsibility and participation. Situational models underline the need to adjust leadership style to task characteristics and employee maturity levels (Thompson, Glasø, 2015), while contemporary research streams emphasize the role of dialogue and reflexivity in leadership processes (Wilkinson, 2023). At the intersection of these approaches emerges the concept of sustainable leadership, which assumes the integration of organizational effectiveness with social and environmental responsibility (Avery, Bergsteiner, 2011). In contrast to models focused solely on financial outcomes, sustainable leadership emphasizes the quality of relationships, the development of human capital, and the long-term consequences of managerial decisions (Di Fabio, Peiró, 2018). Its essence lies in integrating three complementary dimensions of organizational functioning. In the economic dimension, leaders strive for stable performance and innovation, treating employee competence development as a strategic investment (Avery, Bergsteiner, 2012). The social dimension refers to creating a work environment based on trust, participation, and high-quality communication, which fosters job satisfaction and a sense of meaning (Dalati et al., 2017). The environmental dimension involves incorporating pro-environmental practices into organizational strategy, reflecting responsibility for the impact of business activities on the natural environment (Lozano, 2023). The literature emphasizes that balancing these three perspectives constitutes the foundation of sustainable organizational value and enhances organizational credibility among stakeholders (Bridoux, Stoelhorst, 2022). The theoretical foundations of sustainable leadership are rooted in broader management concepts that account for the social and institutional context of organizations. Particular importance is attributed to stakeholder theory, which highlights the need to balance the expectations of diverse stakeholder groups (Freeman, 2023), as well as to corporate social responsibility approaches emphasizing the ethical dimension of leadership decisions (Zieliński, 2014). Significant attention is also given to human capital development theories, in which investment in employee competencies is treated as a source of long-term competitive advantage (Becker, 1992). A common denominator across these perspectives is the assumption that organizational success cannot be assessed solely in

terms of financial performance but must also include the quality of social relationships and environmental impact (Hopwood et al., 2005). From a practical perspective, sustainable leadership implies a redefinition of the leader's role - from a controller of processes to a coordinator of relationships and an initiator of organizational change. Leaders oriented toward sustainability focus on supporting employee autonomy, promoting knowledge sharing, and strengthening a culture of responsibility (Senge, 2006). Such an approach fosters the creation of a work environment in which organizational members are better able to identify the meaning of their actions and actively participate in shaping organizational development (Edmondson, 2020). From the perspective of management and quality sciences, sustainable leadership thus emerges as an approach that integrates economic effectiveness with concern for people and the environment, with its importance increasing alongside the growing dynamism of contemporary markets (Liao, 2022).

3. The characteristics and challenges of the IT sector in Poland

The IT sector in Poland is one of the most dynamically developing areas of the economy. Structurally, it primarily encompasses service activities, software development, and the hardware segment, with a dominant role played by companies creating digital solutions and providing programming services (PAIH, 2010). The development of the IT sector in Poland is reflected in the growing number of enterprises—according to industry reports, there are over 37,000 companies, a significant proportion of which are concentrated in major urban centers such as Warsaw, Kraków, and Wrocław (PARP, 2023; SoDA, 2024). At the same time, a gradual diversification of the geographical distribution of technological activities can be observed, fostering the emergence of new IT clusters and strengthening regional innovation ecosystems (PARP, 2023). The specificity of the IT sector also stems from the intangible nature of its services and the high intensity of knowledge, which constitutes the primary source of added value. Digital products, including software, cloud solutions, and analytical systems, require continuous competence development and close collaboration among project teams. The literature indicates that such a model of activity supports the emergence of network organizations and flexible management structures, enabling rapid responses to technological changes and client needs (Orzechowski, 2011). At the same time, the high pace of innovation necessitates continuous investment in technical infrastructure and human capital, thereby increasing competitive pressure among organizations operating in the sector (SoDA, 2024; Bulldogjob, 2023). One of the key challenges of the IT sector in Poland is the shortage of qualified specialists, which affects the pace of project implementation and the ability of enterprises to scale their operations. Institutional reports indicate a significant skills gap in the labor market, leading to rising salaries and increased employee mobility (PARP, 2023;

Pracuj.pl, 2024). High competition for talent also contributes to the development of alternative forms of employment, such as B2B contracts and remote work (Bulldogjob, 2023; SoDA, 2024). From a human resource management perspective, this necessitates the design of more flexible HR strategies. At the macroeconomic level, the IT sector plays a significant role in the digital transformation of the Polish economy, contributing to the growth of technology service exports and increasing the internationalization of enterprises (PAIH, 2010; SoDA, 2024). Indicators such as the share of IT expenditure in GDP, the level of societal digitalization, and the quality of telecommunications infrastructure point to the growing importance of information technologies as a determinant of economic development (Łada, 2021). At the same time, the rapid pace of technological change, the development of artificial intelligence, and the increasing expectations of employees toward the work environment generate new challenges for organizational leaders. These challenges require not only effective project management but also the development of an organizational culture that fosters innovation, collaboration, and long-term team stability (SoDA, 2024; Valueships, 2023). In this context, the IT sector in Poland constitutes a particularly relevant field of analysis for the concept of sustainable leadership, which may support balancing market pressures with the need for human capital development and sustainable organizational effectiveness.

4. Sustainable leadership as a response to the challenges of the IT sector

The IT sector in Poland operates under conditions of a structural skills shortage, high employee mobility, and strong innovation pressure, intensified by project-based work, distributed teams, and rapid technological cycles (SoDA, 2024; PARP, 2023; Bulldogjob, 2023). In such an environment, traditional leadership approaches focused primarily on short-term efficiency and control prove insufficient for strengthening employees' organizational commitment and stabilizing human capital (Kotter, 1990; Northouse, 2021; Wilkinson, 2023). A response to these challenges may be sustainable leadership, understood as an approach that balances economic, social, and environmental goals and is grounded in a long-term perspective (Avery, Bergsteiner, 2011; Di Fabio, Peiró, 2018). Sustainable leadership emphasizes the durability of organizational development through the systematic strengthening of resources rather than their exploitation. According to Hargreaves and Fink (2004), sustainable leaders build organizational learning capacity, ensure succession, distribute responsibility, and promote fairness and inclusiveness in the distribution of benefits. In the context of the IT sector, these principles translate into practices such as competence development, mature team-based work structures, a culture of learning from errors, and the stabilization of processes combined with flexibility in task execution. From the perspective of mechanisms shaping employees' organizational commitment, it is particularly important that sustainable leadership integrates

the logic of social exchange with the logic of resource conservation. Social exchange theory assumes that employee–organization relationships stabilize when individuals experience a fair balance of contributions and benefits, as well as predictability in the partner's behavior (Hyder et al., 2024; Małys, 2011). A sustainable leader strengthens this balance not only through compensation but also through the quality of relationships, transparency, agency, and recognition. This is especially important in the IT sector, where employees have relatively strong bargaining power and readily available market alternatives. In turn, conservation of resources theory highlights that stress and turnover intentions intensify when individual resources are threatened, lost, or not replenished (Hobfoll et al., 2016; Holmgreen et al., 2017). Sustainable leadership mitigates this risk by designing work environments that support well-being, including rational workload management, psychological support, autonomy, and clarity of priorities. Organizational identity and meaning of work also play a significant role. Social identity theory indicates that identification with the organization strengthens the internalization of its goals and values, thereby supporting the durability of employment relationships (Trepte, 2013; Wontorczyk, 2008). In the IT sector, where work is often expert-based and knowledge-intensive, the technological brand alone is insufficient to build identification. Sustainable leadership strengthens the affective component of employees' organizational commitment through value congruence (e.g., ethics of technology, social responsibility, user orientation) and through consistent managerial practices that reinforce declared values. In this sense, the approach is compatible with the perspective of positive organizational scholarship, which emphasizes well-being, trust, quality of relationships, and a culture that enhances organizational resilience (Dutton, 2008; Meyer, 2018; Glińska-Neweś, Glinka, 2019). It is also worth emphasizing that sustainable leadership may be interpreted as a way of integrating the determinants of employees' organizational commitment with the logic of motivation as conceptualized by Herzberg (1968). In the IT sector, hygiene factors (working conditions, job security, remuneration, organizational policies) are necessary for retention but do not necessarily generate strong affective commitment (Herzberg, 1968; Alshmemri et al., 2017). A sustainable leader, in addition to ensuring hygiene factors, strengthens motivators such as recognition, development, responsibility, autonomy, and meaningful work, thereby deepening the employee–organization relationship, particularly among younger generations for whom flexibility, development, and value congruence are essential (Lipińska-Grobelny, Ciesielska, 2018; Czyczerska et al., 2020). From an organizational perspective, this implies a shift from reactive measures (e.g., salary increases, counteroffers) toward a systemic approach focused on designing employee experience and the work environment in a way that stabilizes resources and identification. Consequently, sustainable leadership can be considered an appropriate response to the key challenges of the IT sector, as it combines a long-term perspective with everyday management practices, simultaneously strengthening multiple components of employees' organizational commitment. In order to structure the conducted analysis and provide a synthetic representation

of the relationships between the analyzed variables, an integrated theoretical model of employees' organizational commitment in the IT sector was proposed. The model represents an attempt to combine insights derived from the literature review and industry reports, embedded within the three-component model of organizational commitment proposed by Meyer and Allen (1991). The proposed approach is conceptual in nature and aims to identify key determinants of employees' organizational commitment and to explain the role of sustainable leadership as a factor integrating their effects. The model thus enables a clearer presentation of the relationships between the specific characteristics of the IT sector, managerial practices, and the formation of durable employee–organization relationships.

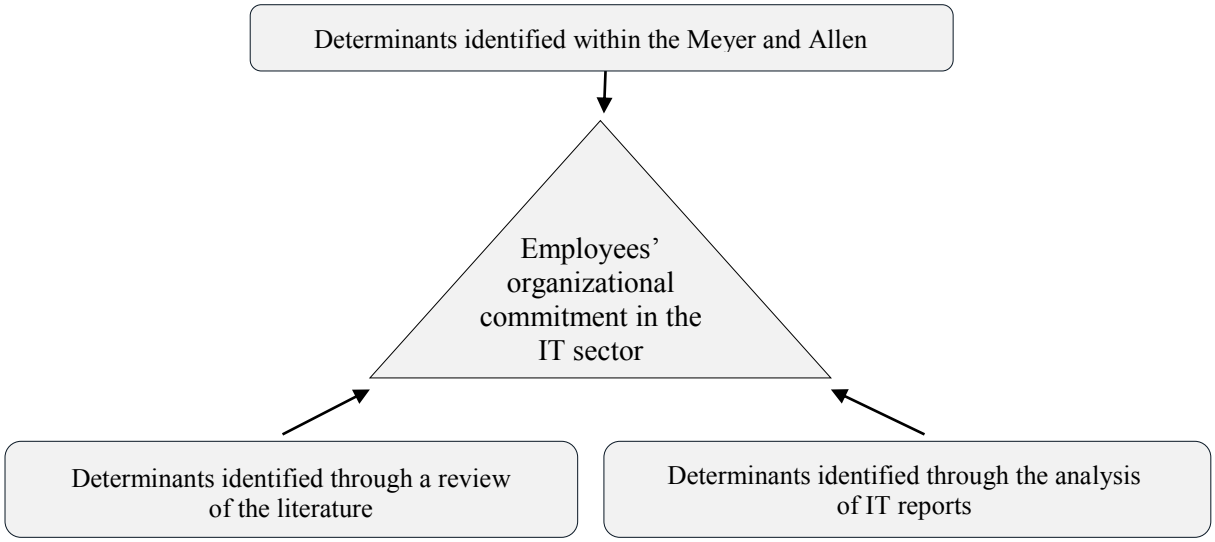


Figure 1. Theoretical model of organizational commitment among employees in the IT sector.
Source: own elaboration.

The proposed theoretical model integrates the determinants of employees' organizational commitment in the IT sector based on the three-component model of Meyer and Allen (1991), encompassing affective, continuance, and normative components. Employees' organizational commitment constitutes the central element of the model and is shaped by two complementary groups of factors. The first group includes determinants identified in the literature, such as job satisfaction, relationships with supervisors, organizational identification, and organizational culture. The second group consists of determinants specific to the IT sector, including remuneration, work flexibility, development opportunities, employment stability, autonomy, leadership quality, and value congruence. The model assumes that both groups of factors influence employees' organizational commitment in parallel, while sustainable leadership acts as an integrating mechanism that strengthens their impact by shaping a work environment based on trust, autonomy, and development.

5. Conclusion and implications

The conducted analysis indicates that sustainable leadership constitutes an appropriate response to the contemporary challenges of the IT sector in Poland, which is characterized by a high pace of technological change, increasing competition for specialists, and evolving employee expectations toward the work environment. The specificity of the technology industry, based on expert knowledge and project-based work, means that traditional management models focused solely on economic efficiency are insufficient to ensure employment stability or to build durable organizational relationships. The adoption of a sustainable approach enables the integration of economic, social, and environmental dimensions, thereby fostering long-term organizational resilience and strengthening human capital. With reference to the aim of the article, it should be emphasized that the key challenges of the IT sector in Poland include a shortage of qualified specialists, high employee mobility, innovation pressure, and the project-based and distributed nature of work. Under such conditions, the role of sustainable leadership lies in providing a long-term managerial response that integrates economic, social, and environmental objectives and goes beyond short-term efficiency. The mechanisms through which this approach influences employees' organizational commitment include, in particular: strengthening social exchange relationships through trust and fairness, protecting and developing employee resources through autonomy and support, fostering organizational identification based on value congruence, and enhancing intrinsic motivators such as responsibility and opportunities for development. Consequently, sustainable leadership contributes to employment stability and reduces employee turnover in the IT sector. The literature review indicates that leadership oriented toward development, participation, and organizational justice can significantly influence the level of employees' organizational commitment, particularly in conditions of high labor mobility. From a human resource management perspective, particular importance should be attached to developing instruments that support autonomy, clarity of goals, high-quality relationships with supervisors, and continuous learning opportunities. The implementation of such practices by leaders fosters a work environment based on trust and shared responsibility, which translates into greater team stability and the organization's ability to execute its strategy under conditions of market uncertainty. It should be emphasized that the effectiveness of sustainable leadership depends on its systemic nature, as it cannot be limited to declarative values but must be reflected in actual organizational practices. In conclusion, sustainable leadership can be regarded as a concept with high practical applicability in the IT sector in Poland. Future empirical research should focus on identifying specific leadership practices that are most effective in the context of Polish technology enterprises, which would allow for a deeper understanding of the relationships between leadership style, organizational culture, and employee behavior in the contemporary economy.

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