

# Study on the Impact of Organizational Culture, Knowledge Management and Digitalization on Sustainable Leadership

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**Abstract.** *Digital transformation must be a part of sustainable leadership since it continues to be at the forefront of sustainability. Organizational culture, which is unique in that it unites the efforts of all members and is based on human, emotional, and cultural values, is purposefully upheld by management of the business in order to achieve the organization's goals. The ability to produce, transfer, and utilize knowledge resources is essential to an organization's existence and success. Knowledge is an immeasurable asset and knowledge management techniques can promote innovative processes and achieve long-term company success by generating fresh ideas. Thus, knowledge management will accelerate the business's ability to maintain performance, particularly if it is carried out through digitalization and in a favorable organizational setting. This paper's premise is the recognition of significant works that investigate how organizational culture, knowledge management, and digitalization influence sustainable leadership. A future leader oriented towards sustainability should concentrate on three key areas: digitalization, knowledge management, and organizational culture, according to an assessment of a series of articles on leadership and sustainable development. Because of this, the research team decided to divide the results and discussions section into three chapters, each of which will focus on a different aspect of the future leader's focus, such as organizational culture or people, knowledge management and innovation, as well as digitalization and its effects. We hope that this work will be helpful to anyone who are interested in the subject and that it will serve as a starting point for further research.*

**Keywords:** leadership, digitalization, organizational culture, sustainable leadership, knowledge management.

## Introduction

Aimed initially at responding to challenges related to global resources, sustainable development emerged along-side different models and trends such as: corporate sustainability, sustainable business models, sustainable leadership, etc. These seek to define practices and approaches or even mind-sets that leaders need to acquire or develop in order to assure that their organization's activity comply with sustainability goals.

In a globalized economy, the world's largest corporations have realized that short-term earnings are not a guarantee of success in a highly competitive market and thus the policy of maximizing short-term profits must be complemented with the creation of a long-term sustainable strategy (Hossain et al., 2022). A balance between financial, social and environmental outcomes of a company is necessary to guarantee sustainable performance.

Surely, embracing the challenges of sustainability and developing business opportunities out of such challenges imply a whole transformational process inside the organization but also outside, in relation to the external context. Such transformation demands a new type of leadership – sustainable leadership (Tideman et al., 2013).

This research's main goal is not to explore features or attributes of the sustainable leadership type. The research intends to identify the main areas of focus of such leadership type and therefore organizes the literature that already exists on these main topics. Rather than conducting a traditional survey among leaders oriented towards sustainability in the relevant industrial sectors, we instead conducted a literature review of important existing publications, that allowed us to crystallize the most crucial focal points for a sustainability-oriented leader of the future.

In terms of leaders capable of driving organizations to such performance, sustainable leadership is directly linked to future-proofing the organization. Following the review of a number of 28 articles related to leadership and sustainable development, three main areas of focus are identified for a future leader: digitalization, knowledge management and organizational culture.

Given the organization's significant focus on nurturing effective leaders, the authors of this research aim at identifying the effect of these three areas on sustainable leadership. Therefore, the research team chose to structure the results and discussion section in three chapters, each reflecting the positive impact that focusing on each of the main areas has on building sustainable leadership practices.

## **Literature review**

In pursuing a view of sustainable leadership via the three major dimensions identified, the authors of the study have reviewed existing literature on the topic. Warrick (2017) emphasizes the direct link between organizational culture and its success, driving the need to integrate culture with strategy.

Work culture, job fit, and leadership style all influence performance favorably according to Ritonga et al. (2019) and Azanza et al. (2013) argues, the first dimension of organizational culture focuses on the organization from the perspective of its people and their relationships with one another, while the second focuses on flexibility, decentralization, and control while maintaining stability.

Further insight into what drives sustainability – oriented organizations and therefore must represent a focus for leaders is offered by studies concluding that organizations that effectively manage and transfer their knowledge are more innovative and perform better (Omotayo, 2015). Research has shown the influence of knowledge management on organizational performance and the leadership styles of individuals in organizations (Arsawan et al., 2022).

In addition, while some scholars argue that there is no distinct correlation between digitalization and a positive impact on sustainable development factors, going as far as showing a negative impact stemming from increased technological adoption (Scholz et al., 2018), the consensus supports the United Nation's position that digitalization firmly improves all aspects related to sustainability. Significant positive correlations have been established between increased digitization of an organization and an improvement in environmental protection metrics as well as

factors related to equality and discrimination (Camodeca & Almici, 2021). Unavoidably, leaders are required to promote digitalization in order to achieve their environmental, social and corporate governance objectives. This is applicable in both the private sector as well as the public sector, as demonstrated by Magdalena Ziolo et al. (2022).

Literature suggests that sustainable leadership in the digital age requires a focus on stakeholder engagement. With the increasing transparency of organizations and the emergence of social media, leaders must possess the capability to communicate effectively with all stakeholders, including customers, employees, shareholders, and communities.

## **Methodology**

The premise of this paper is the identification of relevant publications that would lead to selecting three main areas of interest that have an impact on sustainable leadership. The techniques used during the research are typical for a systematic literature review. It implied selection of documents published in big databases, like Scopus, Science direct and others, covering the areas of business, management, sustainability, innovation and organizational structure and culture. After an individual study of the articles and a thorough analysis, the main focal points of interest for a sustainable leadership were identified and the research continued with the examination of the impact these have on the sustainability of leadership.

In total, the authors reviewed a number of 28 articles related to leadership and sustainable development and three main areas of focus are identified for a future leader: digitalization, knowledge management and organizational culture. Out of these, 10 most pertinent articles were selected and synthesized in a table.

Therefore, the research team chose to structure the results and discussions section in three chapters, whose themes should be the focus areas of the future leader, namely: organizational culture or people, knowledge management and innovation and digitalization and their impact from the perspective of sustainable leadership.

## **Results and discussions**

The following section presents and interprets the most important elements discovered through the study of specialized articles, divided into three areas of influence on sustainable leadership.

### *Organizational culture*

One of the most significant intangible assets and a key factor in an organization's competitiveness is its sustainable organizational culture (Streimikiene et al., 2021).

Organizational culture is defined as the set of key beliefs, assumptions, understandings, and standards that is shared by members of an organization and taught to new members as proper. Job happiness and employee retention, as well as leadership behavior and organizational effectiveness, have all been linked to corporate culture. Given these connections, organizational culture appears to pervade all aspects of the organization (Azanza et al., 2013).

Organizational culture is unique because it gathers the efforts of all members, based on human, emotional and cultural values, and is consciously carried out by the management of the company, with the aim of achieving the organization's objectives (Simanskiene & Zuperkiene, 2014). Leaders are influenced by organizational culture, and vice versa. Organizational culture is a deciding element when it comes to leadership behavior because these two processes are interdependent and give value and consistency to one another. Additionally, organizational culture can be produced in a dynamic corporate environment where outside variables have an impact on

its development. The interaction between the sexes, as well as their individual development and interdependence, have continuously highlighted the development of society (Săseanu, 2014).

Ritonga et al. (2019) study is intended to examine how perceptions and actions of workplace culture, the suitability of tasks and leadership style may affect performance by using job satisfaction as a mediator between these factors. According to the analysis's findings, work culture, job fit, and leadership style all influenced performance favorably. However, their level of job satisfaction can influence how well they perform.

As Azanza et al. (2013) argues, the first dimension of organizational culture focuses on the organization from the perspective of its people and their relationships with one another, while the second focuses on flexibility, decentralization, and control while maintaining stability. Thus, the four organizational culture orientations are support, innovation, rules, and goal orientation. The findings confirm that flexibility-oriented cultures exert their positive effects on employees' job satisfaction through leadership.

Employee satisfaction and organizational culture components that boost productivity were evaluated as favorably correlated with personal effectiveness, whereas components that promote controlling and competitive behavior were considered as negatively correlated. Organizational cultural norms that emphasize passivity and lack of conflicts were not believed to have a substantial impact on employee effectiveness at the personal level (Kwantes & Boglarsky, 2007).

As Warrick (2017) reports an organization's culture has a significant impact on its success. The productivity and morale of an organization's workforce, as well as its capacity to recruit, inspire, and keep outstanding personnel, can all be strongly impacted by organizational culture. Also, there is much more involved in creating an organizational culture than simply talking about it and highlighting its significance. Leaders that prioritize culture development as one of their top priorities, who recognize how crucial it is to coordinate organizational goals, and decision-making with cultural principles are needed to produce the greatest results.

Azanza et al. (2013) discovered that companies with a flexible organizational culture have employees that are satisfied as a result of an authentic leadership. Because of its connection to authentic leadership, which results in job satisfaction, these findings suggest that developing a flexibility-oriented culture in which leaders create a cooperative and supportive setting could be extremely beneficial. A true leader encourages employee flexibility within organizational culture due to shared organizational and personal values. This proposal has implications for organizational culture and the growth of authentic leadership: recruiting or developing authentic leaders will increase employee satisfaction at their place of employment in organizations that value flexibility.

In contrast, Cort'es-Denia et al. (2023) claim in their paper that work engagement was not substantially correlated with the job satisfaction dimension connected to legal elements for public businesses, whereas authentic leadership had a higher beneficial impact on vigor at work for private organizations. For instance, in both commercial and public companies, the energy at work and work engagement were significant factors in explaining the connection between authentic leadership and job happiness.

According to Simanskiene et al. (2014), organizational culture is a distinct culture that is established on purpose by top management and differs from other cultures. It combines the efforts of every employee based on ethical, moral, and cultural principles with the intention of fulfilling organizational objectives.

One of the most crucial aspects of a company's workforce is its culture, which has its own unique set of deeply ingrained values that are difficult to modify. Additionally, employees respect organizational culture. However, a leader can change the company culture by using his or her own

power, influence, and creativity. A leader can ensure all of the following: an emotional atmosphere, innovation, successful teamwork, and potent community expression by using his influence, power, personal attributes, and innovative employment spirit, can advance moral values. A more effective business culture might arise from a transformational leader's focus on improving employee expectations and their growth as opposed to a transactional leader (Streimikiene et al., 2021).

We agree with the assertion that an organization's principal goal is to maintain stability and growth in order to survive, because this vision cultivates a corporate culture that influences how individuals act and behave. The focus on long-term continuity stands in contrast to the external environment's high degree of discontinuity and unpredictable nature. In other words, long-term cumulative change and aversion to risk are signs that an organization is failing to adapt to the needs of the outside world. While a power-distance and hierarchy-based organizational culture provides harmony and a smooth operation, it may lead to a disregard for people's social and sentimental needs and expectations (Egitim, 2022).

Leaders' responsibilities never end, and they are crucial for implementation as well as maintenance of improvements. The best way to accomplish this is by continuing to use the best management techniques. More than 50 years of leadership experience have shown the value of goal stabilization and performance feedback. What is commonly missing in day-to-day management practices is a full understanding of the operationalization model for maintaining goals and the feedback process. Leaders may inspire their workforce to make major improvements quickly by consistently implementing these effective techniques (Hair & Fredendall, 2021).

In order to evaluate perceptions of the organizational culture elements that are thought to be related to leadership and individual performance, Kwantes and Boglarsky (2007) used historical data from Canada, Hong Kong, New Zealand, South Africa, the United Kingdom, and the United States. According to assessments, there is a significant correlation between organizational culture and leadership effectiveness and personal effectiveness. It was generally acknowledged that corporate culture factors that promote employee pleasure and happiness had a positive influence on leadership and individual effectiveness.

As Bagga et al. (2022) presented in their paper, organizations today place a high priority on creating leadership that can operate remotely. Since every firm now works in virtual teams connected by information and communication technologies, leaders need to be highly proactive in their methods given the rate of change in the workplace and organizational culture. Today's organizations rely largely on these teams to complete their job and reach their objectives. To unite virtual team members and instill the proper culture to meet the needs of the changing environments, these innovative teams need strong leadership. The authors' study looked at how change management, corporate culture, and transformational leadership relate to members of virtual teams. The findings showed that organizational culture and transformational leadership had a good and significant relationship with change management. The association between transformational leadership and change management among members of virtual teams was partially mediated by organizational culture.

Is well highlighted by Warrick (2017) that leaders need to be properly trained on how to achieve these things and how to integrate culture with strategy. They also need to see understanding, fostering, and sustaining culture as a critical component of their leadership responsibilities. While fostering strong cultures can considerably help an organization's success, ignoring cultures can seriously harm the organization's stakeholders, clients, and employees. Making good culture management and cultural training a key priority for leaders can have a significant impact on an organization's success and competitiveness.

### *Knowledge Management*

A particular management tool aimed at designing a future-proof organization in its endeavors to comply with sustainability goals is knowledge management. Research shows that successful knowledge management methods have a significant impact on the corporate sustainability of organizations. The concept of knowledge management is based on knowledge and a variety of resources that illustrate how knowledge is implemented in an organization (Matinaro & Liu, 2017). According to Koehler et al. (2019) knowledge management is a set of procedures that strive to transform data into knowledge or valuable information for the company's advancement.

Knowledge is described as existing in two dimensions – tacit and explicit (Omotayo, 2015). According to this author, tacit knowledge relates to personal and context-specific knowledge of a person residing in the human mind, behavior and perception; it requires skills and practice. While explicit knowledge is documented and public. It can be codified in documents, manuals, guidelines, standards, organizational databases or designs. Organizational knowledge is therefore the sum of intellectual capital embedded in employees, partners, documents, software.

Having the ability to leverage and manage knowledge as a strategic management tool will help any leader in decision making processes. The more accurate and complete knowledge available to managers, the better chance they have in making good decisions with positive results for the organizations and for the environment the organization is acting in. As a business strategy, knowledge management is crucial for shaping the future of an organization.

Knowledge is a non-measurable asset and the essence of organizations' survival and success depend on how they create, transfer and exploit their knowledge resources. Practices for knowledge management generate new ideas in supporting innovative processes and achieving long-term corporate success. Therefore, if the company applies knowledge management performance towards sustainability will be accelerated.

Even though managing knowledge is not directly associated with innovation performance, it enhances the organization's capacity to innovate. According to Ode and Ayavoo (2020) while explicit knowledge sharing has more significant effects on innovation speed, tacit knowledge sharing has more significant effects on innovation quality.

Creating knowledge or knowledge acquisition should be a routine practice of a future leader through encouraging people to share and to capture knowledge. Top management should encourage knowledge networks, developing skills of learning from other people, and knowledge flow through basic routines such as search and design. Search is to find ready-made solutions, and design is to develop custom-made solutions or to modify ready-made ones.

Organizations that effectively manage and transfer their knowledge are more innovative and perform better (Omotayo, 2015). Using knowledge as a primary source helps organizations and leaders to acquire the core skills needed to address the rapid changes in the markets, interdisciplinary trends and the need to stay relevant. To successfully achieve it partnerships and collaborative approach are critical. One of the main barriers to effective knowledge management is people's unwillingness to share information, preferring instead to use it for their own purposes and ultimately work in silos.

Overcoming the silo attitude and promoting a joined-up thinking is already an important part of the leadership role. It is even more crucial for the organizations of the future as the next technology generations will likely be interested in developing collaborative solutions for problems of common interests – climate change, universal access to health care, food and energy sources.

An agile management and a culture of learning within the organization make it easier to implement knowledge management. Hence, leaders of the future should strive for a trustful and cohesive atmosphere in their organizations, engaging people in knowledge development thus fostering innovation, increasing productivity and corporate sustainability.

Numerous research has shown the influence of knowledge management on organizational performance and the leadership styles of individuals in organizations (Arsawan et al. 2022). The extent to which leadership styles could be influenced by knowledge management is directly connected to the contextual environment the organization is operating in. In our view, two important factors here are collaboration and reaction to change or innovation.

In relation to collaboration, in order to enhance knowledge in the organization and manage it adequately it is important to engage with stakeholders and create partnerships. It will present a wide range of perspectives and will help better identify solutions and tools to address challenges and to strengthen weaknesses of the organization. Besides getting access to more knowledge and expertise, new partnerships will give the chance to leverage the organization's own knowledge base thus gaining new business opportunities.

For knowledge acquisition strategic alliances are means of transferring and exchanging knowledge among firms, integration of up-to-date scientific and technological knowledge and accessing other firms' technological know-how.

A perfect example of such engagement and alliance is *standardization*, implying partnerships that foster innovation. Standardization is a network platform encompassing a vast knowledge base built on commonly agreed concepts and principles, methods of working and harmonized procedures. The large community involved in standardization comprises private and public stakeholders, competitors and researchers engaged in promoting innovation through standards with a special focus for achieving sustainability goals. A firm participating in standards development organizations (SDOs) can increase its competitiveness by actively influencing standards towards its own preferred specializations or by passively gaining knowledge from the standardization process (Blind & Mangelsdorf, 2016). Participation in standardization improves companies' economic performance, as well as standards contribute to long-run economic growth (Blind et al., 2022) leading to sustainable development. It is important to mention that any new proposal for an international or European standard requires to link it with a sustainability goal.

It is a known fact that services are less standardized than production or manufacturing. Nevertheless, knowledge creation through customer interaction or network involvement will help improve existing services or develop something new or even a combination of existing services in new ways that better address customer needs. It is what defines innovation in services and facilitates a sustainable development of the service-oriented organizations.

Having the opportunity to source external knowledge from other participants and to establish collaborations with other companies or research organizations are the main drivers to get involved into standardization in addition to pursuing the company's particular interests. On the other hand, patents enable the acquiring and selling of technological know-how, whereas publications and standardization activities allow for strategic sourcing and revealing of knowledge related to innovation.

Altogether, research and inventions, pursuing scientific publications, filing patent applications or standardization activities contribute to employers' innovation performance.

With regards to innovation, we note that openness to change, with its unknowns and uncertainties, is another important characteristic of a knowledge-oriented leadership style. Exploring new alternatives, searching for new solutions enables a leader to understand the range

of options that may unfold and responsibly prepare for different challenges. Innovation drives progress and leads to growth. For this to happen there is a need for leaders having strategic ideation and risk taking. Investing time and energy in new technologies, alternative methods of prototyping new models is a distinctive feature of a leadership style oriented towards change and improvement.

Engaging in national or regional partnerships supporting innovative projects led by research initiators or business visionaries is an important knowledge sharing with the perspective of opening new markets.

Being in the position to have access, to influence and to manage knowledge as well as having different perspectives through beneficial partnerships and/or membership in professional communities are useful prerequisites to foresee or even to design the potential futures for the organization. Especially in the current environment of constant social and political changes leaders should put aside long-term strategies and focus on plausible future scenarios. Understanding what could or may happen based on the practices of knowledge management will help those in leading positions explore alternatives and prepare for multiple futures.

### *Digitalization*

Sustainable development focusing on Environmental, Social and Governance (ESG) factors is at the forefront of leader's focus, and they are designing organizational strategies that need to account for ESG metrics, specifically in a world that now penalizes low ESG scores directly and financially, as significantly as affecting credit scores, access to financing and investor confidence (Samaniego-Medina & Giraldez-Puig, 2022).

In the 2030 Agenda for Sustainable Development, the United Nations have recognized the positive impact of digitalization on all aspects of the human condition (United Nations, 2015). The UN emphasizes the role digitalization and technology have in achieving Sustainable Development Goals (SDGs) and therefore establishes focus on leveraging technological partnerships towards achieving SDGs in all countries.

As leaders outline sustainable development objectives, they will naturally need to drive adoption of these objectives, communicate effectively both within their own organization and with the entire stakeholder landscape. Moreover, the complexity of achieving social responsibility goals requires enabling not only the leader to outline their vision but their entire organization to participate in meeting targets, deadlines, sustainability metrics and general socially friendly business practices.

An organization's digital transformation will have an immediate impact on an organization's carbon footprint. Migration of workloads to a Public Cloud, as Accenture outlines in their September 2020 "The Green Behind the Cloud" report, can enable a reduction in Carbon Emissions of up to 84% (Accenture Corp., 2020). Furthermore, digital tools exist to enable leaders to identify opportunities to reduce the carbon footprint of buildings, infrastructure and even cities. Yan et al. (2022) assesses the maturity of the technology and conclude that, specifically at a building level, the technology exists to enable leadership to act upon the vision of sustainable business practices, while at an infrastructure and city level digital systems require further development before being considered fully mature. (Yan et al., 2022).

Sustainable leadership requires nurturing human resources and creating equal opportunities while at the same time reducing any form of discrimination. Digitalization of human capital management enables the workforce to be accurately assessed, increases mobility and offers access to development opportunities and education. Social media presence, adoption and integration expands the possibilities for a leader's vision to be communicated and supported by stakeholders.



Digital transformation enables sustainable production and consumption models; empowers individuals and ensures wide accessibility to primary services (Camodeca and Almici, 2021), therefore supporting the thesis that technology enables leaders' sustainability agendas.

Sustainability agendas will need to be enforced as all aspects of social governance require both monitoring as well as control. As a consequence, leaders benefit from digital advancements in all aspects of modern business. Environmental as well as social metrics are easily tracked and measures to enforce objectives can be next to instant. Smart building technologies can enforce power consumption patterns, optimum elevator operations, can optimize water and gas usage. Fleet monitoring technology can track driver behavior and issue alerts therefore having a positive future environmental impact as well as company financial impact. Supply Chain Management and Logistics Management systems can help source raw materials in the most efficient and sustainable manner possible, considering ESG compliance of suppliers, locations, weather conditions and more (Carlsson et al., 2022).

Human Capital Management systems and modern Recruiting technologies can ensure a focus on diversity, equal opportunity and can help identify bias in recruiting processes. Digital communication platforms can enable communities to share feed-back, vote initiatives that, while initiated by the private sector or isolated public sector entities, may impact the community as a whole. Leaders who promote digital innovation and digital adoption enable both indirect Social Governance aspirations such as empowering a more informed consumer as well as more direct ones such as developing sustainable products and services.

While some authors argue that digitizing and monitoring information can have the unintended consequence of putting undue pressure on privacy (Scholz et al., 2018), digitizing business processes, standards and records can ensure automatic compliance. Rigidly configuring accounting best practices in ERP systems or selectively granting or prohibiting access to information can greatly reduce the risks of fraud, human error and, paradoxically can support an individual's right to privacy. An example of this can be medical records in digital form to which access can be restricted a lot more easily than those in physical form.

Regardless of the nature of a leader's sustainability goal, technology enhances their ability to enforce their vision, to promote practices that are in line with their desired objectives and to deter practices that come into direct conflict with the outcomes they are pursuing.

As discussed earlier in the article, while leaders operate as the heads of their respective organizations, stakeholder capitalism requires that their actions are shaped not only by business objectives but environmental and social guidelines. It is therefore imperative that their stakeholders have a voice as well as the ability to influence direction in a constructive manner and within a timeframe that avoids conflicts of interest

Allowing all stakeholders, a voice and a platform can help avoid disruptive outcry, miscommunication, legal action and negative financial implications. Various engagement platforms not limited to social media can enable leaders to assess a wide range of feed-back and determine the optimum course of action. An example would be Oracle Corporation's Customer Connect Portal, where Oracle Cloud Customers can submit product enhancement ideas and vote ideas other clients have submitted. Product Development leaders therefore enabled a platform through which their customers are more actively engaged in shaping the product direction.

Going further, at the end of this article, authors decided to synthesize the main areas of focus about sustainable leadership into this table below. We selected only 10 articles for further comparison below, which are the most relevant for this study, having different focal areas on sustainable leadership, even though the literature review is done on more articles. Below is a

synthesis of the most important traits of sustainable leaders from the three main areas of interest (organizational culture, knowledge management and digitalization).

**Table 1. Main areas of focus regarding sustainable leadership**

No.	Source of research	Focal areas for a sustainable leader	Comments
1.	Ritonga et al. (2019)	<ul style="list-style-type: none"> <li>● Perceptions and actions of the workplace culture</li> <li>● Job satisfaction</li> </ul>	Performance can be highly influenced by the level of job satisfaction
2.	Warrick (2017)	<ul style="list-style-type: none"> <li>● Organizational culture</li> <li>● Culture development</li> </ul>	Organizational culture spread through sustainable leadership is a vital point for productivity and morale in an organization
3.	Azanza et al. (2013)	<ul style="list-style-type: none"> <li>● Flexibility</li> <li>● Authenticity</li> </ul>	Leaders are encouraging employees into a cooperative and supportive environment (best for career and personal development)
4.	Cort'es-Denia et al. (2023)	<ul style="list-style-type: none"> <li>● Work engagement</li> <li>● Energy at work</li> </ul>	Happiness at work is triggered by engagement and, at the same time, connected with authenticity.
5.	Kwantes and Boglarsky (2007)	<ul style="list-style-type: none"> <li>● Leadership effectiveness</li> <li>● Personal effectiveness</li> </ul>	Corporate culture factors that promote employee pleasure and happiness had a positive influence on leadership and individual effectiveness
6.	Camodeca and Almici (2021)	<ul style="list-style-type: none"> <li>● Equal opportunities</li> <li>● Lessen discrimination</li> </ul>	By digitalizing the world and together with the globalization, leaders are enabled nowadays to adopt sustainable approach when interacting with their employees
7.	Arsawan et al. (2020)	<ul style="list-style-type: none"> <li>● Knowledge management</li> <li>● Reaction to change</li> <li>● Collaboration</li> </ul>	Future leaders should work to create a culture of trust and unity inside their organizations, including staff members in knowledge growth to promote innovation, boost productivity, and ensure corporate sustainability
8.	Matinaro and Liu (2017)	<ul style="list-style-type: none"> <li>● Knowledge management</li> <li>● Corporate sustainability</li> </ul>	Corporate sustainability in organizations is directly influenced by the right resources given to leaders, through knowledge
9.	Yan et al. (2022)	<ul style="list-style-type: none"> <li>● Sustainable business practices</li> </ul>	Leaders can use digital tools for nurturing a sustainable climate in their companies
10.	Scholz et al. (2018)	<ul style="list-style-type: none"> <li>● Digitalization of information</li> </ul>	Automatic compliance can be achieved in a sustainable organization, but digitalization might need to be used with caution, due to privacy policies.

Source: Authors' own research

## Conclusion

In conclusion, the foundation of this paper is the acknowledgment of important studies that look at the effects of organizational culture, knowledge management, and digitalization on sustainable leadership.

We found that one of the main areas of focus about sustainable leadership is closely related to organizational culture through perceptions and actions of the workplace culture, correlated with job satisfaction, because we discovered that performance can be highly influenced by the level of job satisfaction (Ritonga et al., 2019). Secondly, the development of organizational culture and spread through sustainable leadership is a vital point for productivity and morale in an organization (Warrik, 2017). Thirdly, flexibility and authenticity show that leaders are encouraging employees into a cooperative and supportive environment (Azanza et al., 2013). Of course, that happiness at work is triggered by the involvement and energy of the team, connected with authenticity (Cort'es-Denia et al., 2023). Also, corporate culture factors that promote employee pleasure and happiness had a positive influence on leadership and individual effectiveness.

We also conclude that an organization's core values are those that its members agree upon and instill in new hires as appropriate. This is what is meant by an organization's culture. In order to accomplish the organization's goals, management of the business intentionally upholds organizational culture, which is distinct in that it unites the efforts of all members and is founded on human, emotional and cultural values.

In another train of thoughts, another important area is knowledge management that refers to a combination between a good reaction to change and collaboration. Future leaders should work to create a culture of trust and unity inside their organizations, including staff members in knowledge growth to promote innovation, boost productivity, and ensure corporate sustainability (Arsawan et al., 2020; Matinaro & Liu, 2017). Furthermore, in the context of the emergence of knowledge-based economies where knowledge is the new competitive advantage in business, knowledge management practices should be put in place to improve organization effectiveness (Kwantes and Boglarsky, 2007). Such practices are beneficial to all sectors, be they educational, banking, telecommunications, manufacturing, services and even Public Sector. Even non-competitive organizations succeed or fail based on their ability to leverage their knowledge-based assets. How knowledge is acquired, shared and accessed by organizations in the future is a challenge for any leader as well as an opportunity.

And last but not least, digitization brings together and facilitates the implementation of the first two factors mentioned, because by digitalizing the world and together with the globalization, leaders are enabled nowadays to adopt sustainable approach when interacting with their employees, regarding equal opportunities, lessen and discrimination, creating an healthy organizational culture and an enriched knowledge management (Camodeca & Almici, 2021; Yan et al., 2022). The future is indisputably digital meaning that knowledge platforms will be driven by artificial intelligence and augmented reality. We can already imagine in future years our "cognitive digital twin" constantly surfing large volumes of research papers, standards and patents stored in repositories to find information directly relevant to our interests. This represents a great opportunity to learn and pilot various models, services, products and solutions that could meet our organization's future needs for resilience and adaptability.

Leaders must associate digitalization with sustainability, they can use digitalization to define, communicate, enable, enforce and receive support for their sustainability objectives. While they will be spearheading these efforts within their respective organizations, effective engagement

with stakeholders will remain vital for the success of sustainable leadership in the digital age (Scholz et al., 2018).

Sustainable leadership is built upon these notions, and we recommend that leaders leverage digitalization, knowledge management and organizational culture and values in order to succeed and ensure their organizations prosper.

Finally, we succeeded in presenting the main areas of focus regarding sustainable leadership and will consider applying other research methods for further research, in order to analyze this topic in depth.

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