

Review

# Challenges and Opportunities Post Pandemic of Organizational Ergonomics to Promote the Social Sustainability in Cultural and Creative Industries: A Critical Review and Future Research Agenda

Gloria Janeth Murillo-Aviña <sup>1</sup>, Sialia Karina Mellink-Méndez <sup>1</sup>, Josué Aarón López-Leyva <sup>2,\*</sup>   
and Víctor Manuel Ramos-García <sup>3</sup>

<sup>1</sup> Escuela de Administración y Negocios, CETyS Universidad, Ensenada 22860, Mexico

<sup>2</sup> Centro de Innovación y Diseño, CETyS Universidad, Ensenada 22860, Mexico

<sup>3</sup> Departamento de Física, Matemáticas e Ingeniería, Universidad de Sonora, Navojoa 85880, Mexico

\* Correspondence: josue.lopez@cetys.mx

**Abstract:** As background, the COVID pandemic affected the competitiveness and sustainability of cultural and creative industries around the world. In particular, social sustainability must be promoted in a formal framework, namely, an organizational ergonomics framework. However, there are not enough results and findings in the literature in this regard. This article shows a critical review of the literature related to the problem mentioned, intending to determine the opportunities, challenges, and controvertible aspects that could support development of the cultural and creative industries. As result, the main challenges are (1) the lack of reference frameworks and informality, (2) comparative understaffing, and (3) the strengthening of the value and supply chains. The opportunities are (1) cultural and creative industries as a new key element of strategic development for regional competitiveness, (2) cohesion and social belonging, and (3) the diversity of cultural and creative expressions. Finally, regarding the application of organizational ergonomics in the cultural and creative Industries to promote social sustainability, the theoretical and practical implications, managerial implications, and future research lines are discussed. In addition, the limitations of the research are explained, clarifying that the results generated are not conclusive, but rather that they establish a starting point for research, development, and innovation (R + D + i) in support of the orange economy.

**Keywords:** cultural and creative industries; social sustainability; organizational ergonomics; challenges; opportunities



check for updates

**Citation:** Murillo-Aviña, G.J.; Mellink-Méndez, S.K.; López-Leyva, J.A.; Ramos-García, V.M. Challenges and Opportunities Post Pandemic of Organizational Ergonomics to Promote the Social Sustainability in Cultural and Creative Industries: A Critical Review and Future Research Agenda. *Sustainability* **2022**, *14*, 15120. <https://doi.org/10.3390/su142215120>

Academic Editors: Tin-Chih Toly Chen and Hui Liu

Received: 1 October 2022

Accepted: 8 November 2022

Published: 15 November 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

The COVID pandemic caused changes in all sectors in the world, both in the personal and collective spheres, regardless of the competitiveness level of the countries' economies. In particular, the industrial sector was affected during and after the pandemic concerning the practices, processes, and perceptions that they used before the pandemic; that is, the pandemic forced all industrial sectors, including the primary, secondary, and tertiary sectors, to make required changes for the survival of the companies, and those companies that could not make the necessary changes ended their operations and services offered [1–6]. In the particular case of the cultural and creative industries (CCIs) and their economy (called the orange economy or creative economy), they were also affected by the pandemic (in addition to their effects at this initial stage of its economic development and promotion worldwide). To clarify, although theoretically CCIs have always existed, the truth is that they are a new concept in the legal and economic frameworks worldwide [7–10]. In general, creative industries can be considered to be sectors such as (1) creative commerce;

(2) editing, video game editing, and graphic arts; (3) multimedia; (4) creative manufacturing; (5) architecture; (6) artistic creation and cultural activities; (7) design, photography, and translation; (8) culture-related education; (9) information and communication; (10) programming; (11) radio and television; (12) research and development; and (13) services, among others, according to the international or national classifications used [11–14].

In this way, the CCIs, just like all other industrial sectors, aim for permanence in the market through actions to promote business or corporate sustainability, taking countermeasures in the various conventional dimensions of sustainable business development, i.e., environmental, social, and economic dimensions [15]. However, due to various organizational factors such as organizational maturity, leadership, and human and financial resources, among others, not all CCIs achieve the ideal integral sustainable development; rather, some only reached bearability (considering both social and environmental sustainability), viability (considering both economic and environmental sustainability), and equitability (considering both social and economic sustainability), as part of their continuous improvement cycle [16]. Although the sustainability concept is certainly very widely used in the industrial sector, what is not common are the processes and theoretical and methodological tools to achieve that sustainability, which is one of the main causes for not achieving sustainable competitiveness. In this way, the ergonomics concept comes into play to support the sustainability of the creative business.

In general terms, ergonomics is the discipline oriented to systems, that is, to sets of elements or components that interact with each other and that are organized in a certain specific way to achieve previously established goals. However, ergonomics not only considers physical or manufactured systems or elements (i.e., tangible elements) but also all the intangible elements and components that make it possible to meet a business objective. In this way, ergonomics has multiple dimensions (i.e., cognitive, temporal, green, physical, community, and environmental, all of which are included in organizational ergonomics), where each dimension is related to certain tangible and/or intangible elements [17]. Thus, the organizational maturity level in terms of all ergonomics dimensions is directly related to the sustainable development of CCIs, that is, a corporation has not developed sustainably because it has not achieved systems, elements, and components (both tangible and intangible) that are competitive enough inside and outside the company to achieve social, environmental, and economic purpose. In other words, a company that has not developed ergonomics in all its dimensions cannot to achieve the necessary sustainable development to continue competing in the market [18]. In addition, an element of the sustainable development of any industry is social sustainability, which seeks to promote and achieve the comprehensive development of human resources in the best possible way, emphasizing those vulnerable groups of people both belonging to and not belonging to the organization.

Therefore, there is an important relationship between the sustainable development of the CCIs and their maturity level concerning all ergonomics dimensions. Thus, valid questions arise in this regard, such as the following: Are the dimensions of ergonomics considered as an element of the sustainable development of the cultural and creative industries? How does the pandemic impact the perception of the ergonomic dimensions of the cultural and creative industries? Is the sustainable development of the cultural and creative industries sought to ignore the ergonomic dimensions of the company? What are the best practices applied in the ergonomic dimensions by cultural and creative industries around the world? Finally, how do the cultural and creative industries seek social sustainability without considering the ergonomic dimensions? These questions will be answered in the Section 6.

This article is organized in the following manner. First, a literature review regarding social sustainability and ergonomic dimensions in the creative industries is presented. Then, the theoretical framework regarding social sustainability and ergonomic dimensions is given, with organizational ergonomics being the dimension addressed in this article. Next, the challenges and opportunities of organizational ergonomics are presented to promote the post-pandemic social sustainability of the CCIs. Then, the Section 6 addresses

the theoretical and practical implications, limitations, implications for future studies, and managerial implications. Finally, the conclusions and findings are presented.

## 2. Literature Review

Currently, the fashion creative industry has had various problems related to sustainability, and a transition system to sustainability has been proposed. However, it seems that there are enormous challenges to achieving this transition [19]. Even with this, it is proposed that sustainability be promoted from the early design stages through transitional design methodology within a circular economy framework. In the same logic, the sustainability of CCIs has also been analyzed and measured, but no evidence has been found to relate said analysis to ergonomic dimensions [20,21]. On the other hand, sustainable development has also been approached from a psychosocial approach, which allows the efficiency of CCIs to be determined according to the cultural aspects of people [22]. This could be related to cognitive ergonomics. In addition, various works have addressed the sustainability level of the CCIs and the various factors that affect them, intending to make theoretical and practical proposals as background and support for laws that propose to better promote this industrial sector. In point of fact, CCIs continue to gain international recognition and support for their ability to contribute significantly to the Sustainable Development Goals (SDGs) [12]. Even with this, however, the ergonomic dimensions of the CCIs have not yet been addressed directly, while social sustainability has been addressed in a conventional manner [23]. Some research that promotes sustainability is also indirectly related to community ergonomics [24,25]. However, just like other research projects, these studies still do not directly address the definitions and methods of ergonomic dimensions and their relationship with social sustainability. Regarding the relationship of ergonomics with sustainability, some important contributions consider only a few ergonomic dimensions related to social sustainability for small and medium enterprises [26–29]. However, there is no literature evidence that similar research works are being applied to the CCIs, although the literature evidence does show general applications of some ergonomic dimensions in the CCIs [30,31]. Considering the aforementioned, it is determined that there is a knowledge gap regarding the application of organizational ergonomics to promote social sustainability in the CCIs in the context of the COVID pandemic.

On the other hand, Table 1 shows the publications in journals, book sections, conference procedures, and generic documents concerning the cultural and creative industries with various issues such as social cohesion, sustainability, general ergonomics, and pandemics. This information was obtained from Mendeley Data© and is meant to clarify that the amount of technical and scientific documents associated with the general ergonomics, social cohesion, and sustainability aspects of the cultural and creative industries is deficient in comparison to documents directly related to the pandemic's impact on the CCIs. Regarding the decrease in publications about sustainability and CCIs as of 2019, there are no clear reasons for this. Curiously, however, as of 2019, the publications that relate to CCIs and the pandemic increased. The above may be a pertinent argument.

**Table 1.** Comparison of the number of technical and scientific manuscripts associated with CCIs.

Principal Topic	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Social cohesion	7	7	14	6	8	13	1108	214	11	1
Sustainability	47	51	106	70	66	90	1188	313	112	23
General ergonomics	2	1	1	3	4	2	2	5	2	3
Pandemics	1	5	2	3	2	2	1	273	206	70

In general, the methodology used for the systematic review is as follows: (1) selecting the database, Mendeley Data©, according to the interdisciplinary topic (Web of Science, Scopus, IEEE Xplore, and Science Direct were analyzed); (2) establishing the topics, their relevance, and the research quality; (3) collecting papers and removing duplicates or similar

papers; (4) determining aspects related to the CCIs; and (5) analyzing and comparing the results and findings.

### 3. Theoretical Framework

#### 3.1. Social Sustainability

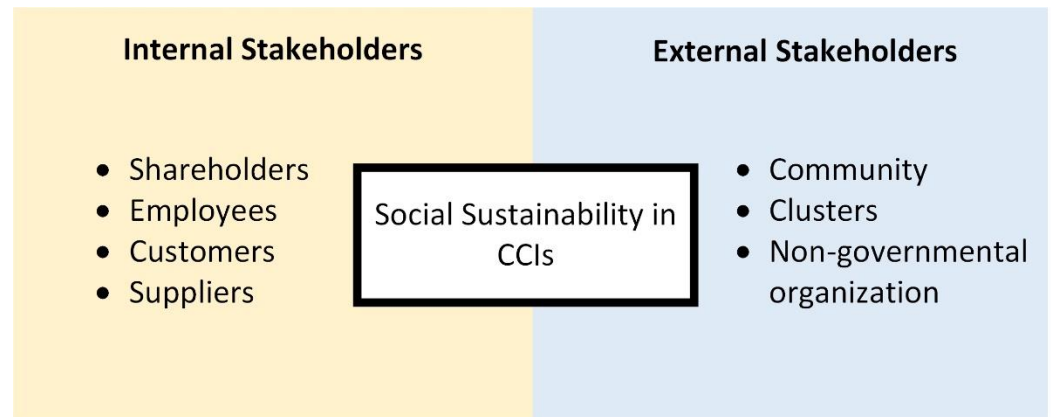
As mentioned, social sustainability is one of the three vital elements that make up the comprehensive sustainable development concept. In general, social sustainability is oriented towards achieving a vast improvement in society. According to the United Nations Organization, said integral improvement or well-being of society must be addressed as a priority considering the following elements: (1) eradication of poverty, (2) decent work, (3) gender equality, (4) social inclusion for people with diverse abilities, (5) universal health care, (6) access to drinking water and comprehensive sanitation, (7) universal access to education and training, and (8) respect for the rights of indigenous peoples, although there may be other relevant elements depending on the context. It is important to clarify that social sustainability does not consider that these elements work in isolation (i.e., independently); rather, there are usually interactions between the elements mentioned [32,33].

In particular, compliance with these priority elements for social sustainability implies a change in the social policies of the stakeholders. For example, a company can initiate the change by proposing new social policies and guidelines to be executed at all organizational levels. This can be understood as the promotion of a socially and culturally responsible attitude by companies. Therefore, social and cultural responsibility is directed at social sectors or populations that are at a disadvantage compared to others or that are unprotected in some way. In a broad sense, social sustainability implies the promotion of activities that allow the fulfillment of all the rights of people, e.g., economic, political, cultural, labor, gender, and racial equity rights, among others. In this fashion, when social sustainability achieves the respect and promotion of all the rights of people, at the same time it is sought that each individual potentiates their capacities and is an active part of the various processes of social development, both in the individual and collective sense. Even with the above, there are few empirical and theoretical studies regarding social sustainability. This literature review reveals that the social aspect has been integrated into the last stages of the debates related to sustainable development, i.e., environmental and economic sustainability were addressed first. In addition, the action of aligning corporate social responsibility with the objectives of social sustainability of the United Nations Organization is not an easy task, which implies important challenges [34–37].

On the other hand, it is not possible to fully understand social sustainability without resorting to vital contributions in the area of social sciences, which are widely applied in various industrial sectors, both nationally and internationally [38]. In addition to the above, the verification or audit processes of sustainability in companies are generally less directly related to social sustainability aspects, causing more indicators related to economic and environmental dimensions. In this way, social sustainability indicators should also be well designed, analyzed, and measured, as indicators of the other dimensions of sustainability are generally done [39]. Some interesting tools and methodologies can help assess social sustainability, which should be widely applied in the Sustainability Measurement and Reporting System (SMRS) processes [40].

An important aspect of social sustainability in the context of CCIs is to identify the internal and external stakeholders, i.e., the people (individually or collectively) that affect or are affected by the fulfillment or not of the social sustainability indicators of the organization. Figure 1 shows some internal and external stakeholders considering that, depending on the complexity of the company, this list can be considerably expanded. In particular, certain actions should be emphasized with the internal stakeholders, e.g., effective, comfortable, and appropriate health and safety equipment for all, equal employment opportunities and progression for all groups without prejudice, equal pay and working conditions, freedom of association, and no coercion or harassment in the workplace, while for external stakeholders, community engagement and public advocacy are priority activities. In this

way, social sustainability in CCIs must focus on progress and continuous improvement and not on perfection, since the latter is a subjective concept and impossible to achieve.



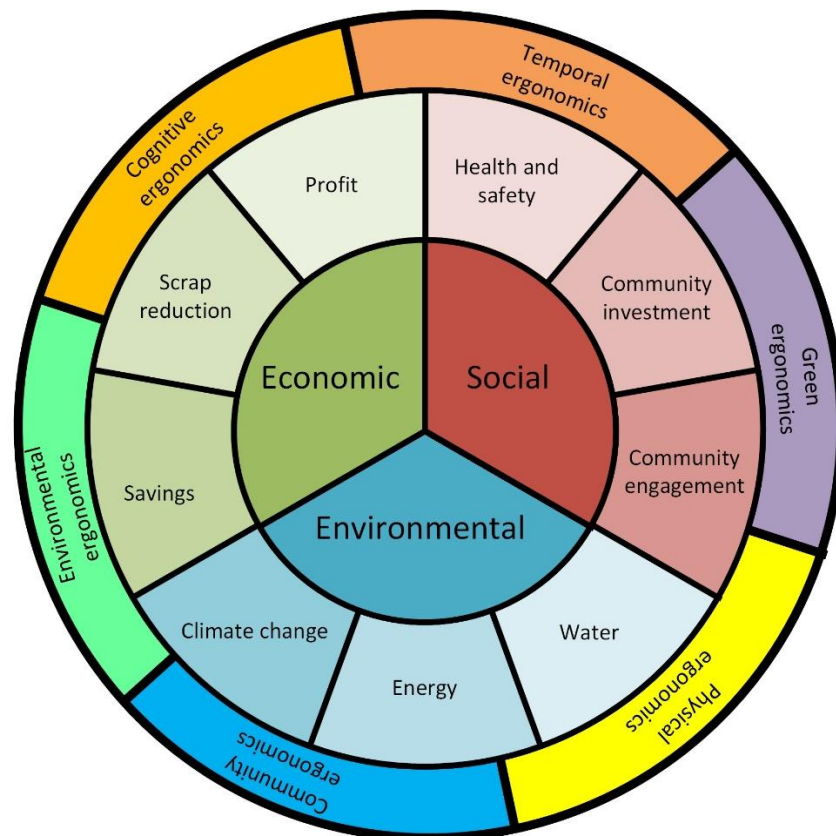
**Figure 1.** Stakeholders for cultural and creative industries.

### 3.2. Organizational Ergonomics

Nowadays, ergonomics is considered by many researchers as a consolidated scientific discipline, which is continuously expanding globally. This scenario is the result of different ideas that have influenced ergonomics evolution, so the importance of this field was quickly accepted throughout the world [41]. In particular, the concept of ergonomics is the scientific analysis of the connection between people and their work environment (i.e., circumstances). The word “environment” is used to indicate not only the physical conditions but also the tools and materials, as well as the methods and organization of work at both individual and group levels [42]. Therefore, ergonomics, during its evolution, has been strengthened by various scientific disciplines and has contributed to others, such as public health, the systems approach, and work hours, among others [43,44]. For instance, some contemporary themes in ergonomics include the design for people with both physical and mental disabilities as well as for the elderly population. In this way, ergonomics aims to enhance the health, safety, and well-being of people, impacting public health in a way that supports social sustainability, since the link between ergonomics and sustainability in the business world is in the area related to occupational health, safety, and the design of work systems [45]. In institutions, both national and international, it is necessary to incorporate ergonomic approaches to find the root causes of organizational problems (e.g., based on Root Cause Analysis (RCA)) that impact the performance of people and the sustainability of the system, since if organizations can ensure “ideal jobs” for workers, they can also ensure the sustainable growth of the organization. In addition, organizations can significantly benefit from the ergonomics approach, because there is a natural synergy between sustainability and ergonomics, with the aim of understanding and optimizing the results of human–system interactions [45].

In general, ergonomics presents a wide field for scientific–academic research, innovation, and development, so ergonomics is approached by different dimensions, such as physical, cognitive, environmental, and organizational ergonomics, among others, as shown in Figure 2. In particular, physical ergonomics studies the dimensions of the human body such as anthropometry, anatomy, and biomechanics of humans concerning physical, mental, and environmental effort, so it is a multidisciplinary model that is concerned with adaptations from work to people [46]. Cognitive ergonomics studies mental processes, such as perception, memory, reasoning, and motor responses, in their effects on the interactions between people and the other components of a system. Environmental ergonomics analyzes and investigates the conditions that constitute the environment of the human–machine system, as well as the physical conditions that surround it and that influence their work performance when performing various activities [47]. Among these conditions are the physical environmental factors such as noise, lighting, temperature, and vibration [48].

Thus, organizational ergonomics (which encompasses all ergonomic dimensions in a certain way) promotes the regulation of a socio-technical space of the organization that involves people and work, so that the latter is perceived as a social fact and is also involved with other elements such as technology, economics, the environment, people, the vision system, sociocultural elements, participatory conception, community ergonomics, new forms of work, organizational culture, and quality management [49] Therefore, organizational ergonomics is a tool for promoting and supporting social responsibility and corporate sustainability in the new company's model, which involves an inclusive and proactive human vision.



**Figure 2.** Relation between the ergonomics dimensions and sustainability dimensions.

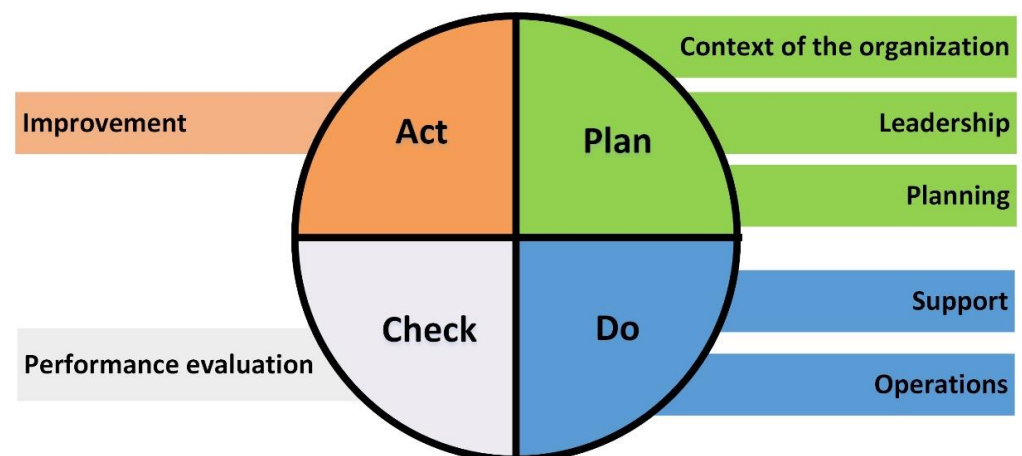
After a theoretical literature review about ergonomics, organizational ergonomics can be considered an important dimension for social sustainability, since this factor contributes to improving not only internal working conditions within an organization, but it also supports the solution of external factors, such as political or cultural, which involves people, society, and the environment.

#### 4. Challenges of Organizational Ergonomics to Promote Social Sustainability in CCIs

Because organizational ergonomics focuses on the general organization of the company and in particular on the organization of everything related to work (e.g., activities, schedules, teamwork, human resource management, among other aspects), various challenges related to social sustainability promotion emerge in the day-to-day organizational dynamics of CCIs. The objective of the above is the optimization of sociotechnical systems, which are related to the structure, processes, and rules of each company according to its reality. In this way, the CCIs have challenges that largely depend on their location and regulatory framework. Next, we will describe some general challenges of CCIs to improve their social sustainability with the help of organizational ergonomics.

#### 4.1. The Lack of Reference Frameworks and Informality

The first challenge, and perhaps the most basic, is the informality and non-institutionality of the norms, rules, and structure in the organization, an important aspect of organizational ergonomics. Thus, many organizations (both from the cultural and creative industries sector and the conventional industrial sector) can at a certain moment ensure the existence of actions in favor of social sustainability, but they do not have an institutional framework that allows the mentioned procedure to be analyzed and checked. Sometimes there is the conventional problem of ensuring that social interests are promoted but there is no evidence of it. Thus, how can compliance with actions to promote social sustainability be ensured if there is no framework of reference or institutional commitment of the cultural and creative industries? In this sense, the vast majority of international standards generated by the International Organization for Standardization (ISO), such as the families of standards ISO-9000 (Quality Management), ISO-45000 (Occupational Health and Safety), ISO-14000 (Environmental Management), among others, mention as an initial requirement the commitment of senior management concerning what is required to standardize, and the requirement to have a particular institutional policy related to the matter in question. For instance, if one wants to standardize occupational health and safety in CCI (related to the ISO-45000 standards family), the organization requires an institutional policy that explicitly communicates both internally and externally the institutional responsibilities regarding the matter in question. The foregoing applies equally to the promotion of social sustainability. It is not enough to have an institutional policy related in a greater or lesser way to sustainability; rather, it is required to be specific and, as far as possible, to have clear institutional policies for matters related to social sustainability. In this way, all actions in favor of the promotion of social sustainability will be supported, guided, improved, and controlled by senior management, which implies an obligation to comply with said social sustainability policy by all members of the organization, not importing the position of the staff or location of the CCIs. Although it is true, the foregoing is also a challenge for organizations from other industrial sectors that are much more developed and historically supported. Thus, for CCIs, the challenge is maximized [50–52]. Figure 3 shows the High-Level Structure (HLS) and Plan–Do–Check–Act cycle (PDCA or Deming cycle) that provide a reference framework and formality regarding the standards that can be applied to the CCIs. It can be seen that each stage of the Deming cycle considers particular elements of the HLS; for example, the Plan stage is made up of the context of the organization, leadership, and planning.



**Figure 3.** High-level structure and PDCA cycle for standards that can be applied to CCIs.

#### 4.2. Comparative Understaffing Related to Small- and Medium-Sized Enterprises

The second challenge is related to the number of workers directly related to the CCIs, particularly for small- and medium-sized enterprises (SMEs). In particular, when a company from any other industrial sector wishes to deploy a continuous improvement scheme,

social sustainability must be thought of, and if the company has a large number of personnel, the organization of tasks and responsibilities is somewhat facilitated. In particular, organizational ergonomics can establish multiple processes and standards considering a large staff. Nevertheless, in the case of the CCIs, the number of directly related labor personnel is generally not comparable with that of other industrial sectors (e.g., the manufacturing industrial sector). Hence, efficiency and effectiveness are aspects that should be valued much more in CCIs than in any other industry sector. Here we must understand that effectiveness consists of achieving the goals established by the company, and efficiency refers to achieving the goals with the least amount of resources. The foregoing is always within the framework of organizational ergonomics as support for social sustainability. Conceivably, and due to the sense of the CCIs, the creativity that is related to the products and services offered can be applied to capitalize on efficiency and effectiveness. In addition, the lack of personnel in CCIs affects organizational health, so sustainable social development through organizational ergonomics techniques is complicated. In particular, the shortage of people has strong implications, especially in small creative businesses. For instance, understaffing is related to an increase in injuries and illnesses, risk of missed deadlines, expenses from delayed tasks, decreased customer satisfaction and work quality, loss of sales and customers, brand damage, stressed employees, and a high staff turnover rate, among others. All of the aforementioned have implications for the social sustainability of the CCIs. It is essential to clarify that some references mention the large number of jobs generated by the CCIs, similar to or higher than other industrial sectors. However, this challenge focuses on professional and skilled job shortages. Even with the above, the jobs generated by CCIs represent 7% considering all the jobs created by Germany, Spain, France, England, Italy, Turkey, Australia, South Korea, and Japan [53–57].

#### *4.3. Strengthening of the Value and Supply Chains*

The third challenge is the external relationship of the CCIs with the stakeholders that could help their competitive development by strengthening the value and supply chains. In particular, a value chain is a business model that describes the full range of activities necessary to create a product or service. Thus, by strengthening the value chain, the processes of the CCIs are optimized, the sale of their products and services is increased, and competitive advantage is obtained. Moreover, the supply chain is the set of activities, facilities, and distribution methods necessary to carry out the process of selling a product and service in its entirety. Undoubtedly, according to their categories, CCIs will have value and supply chains according to their needs. Figure 4 shows the context of the value and supply chains for CCIs. However, how are the value and supply chains related to social sustainability and organizational ergonomics? In general, it is impossible to think about a competitive company's value and supply chains that are not based on well-analyzed administrative processes, structures, and rules, i.e., based on organizational ergonomics. In like manner, understanding that people are the key elements of the value and supply chains, the competitiveness of the company should imply direct support for social sustainability. In other words, organizational ergonomics establishes the appropriate processes and structures so that by helping the people involved in the value and supply chains, the CCIs are more competitive. In fact, as part of the steps to enhance these chains, the value and supply chains must be mapped, communicate improvement expectations to staff, establish initial performance, collaborate with the industrial sector, and, finally, develop personnel training programs (highly related to social sustainability). Alternatively, companies from other industrial sectors generally have stronger linkage actions, so that specific academic programs are even deployed as direct support for a particular industrial sector, e.g., the manufacturing sector. Nonetheless, the above does not commonly happen in CCIs. There are currently very few academic programs, specializations, and technical personnel trained in the development of CCIs, let alone in the development of social sustainability based on organizational ergonomics. This is also related to the need to establish government and financial support systems to attend



to creative companies that have never been directly linked to social sustainability or the other dimensions of sustainability, and also to promote sustainability dimensions in CCIs with some experience in that. Singularly, these support systems should help strengthen the value chain of CCIs to promote their competitiveness based on a measurement and control scheme. The latter is of vital importance since at present, and in comparison with other industrial sectors, relevant and sufficient data concerning the CCIs that allow smart sustainable decisions to be made are not available. The foregoing is because the social impact of organizational ergonomics is sometimes not so easy to quantify, so specific and well-designed methodologies are required according to the particular needs of the cultural and creative industries sector. In this way, both the value and supply chains can be sustainable, where it is possible to systematically plan, manage, measure, and update the environmental, financial, and social indicators of all the elements involved [58–61].

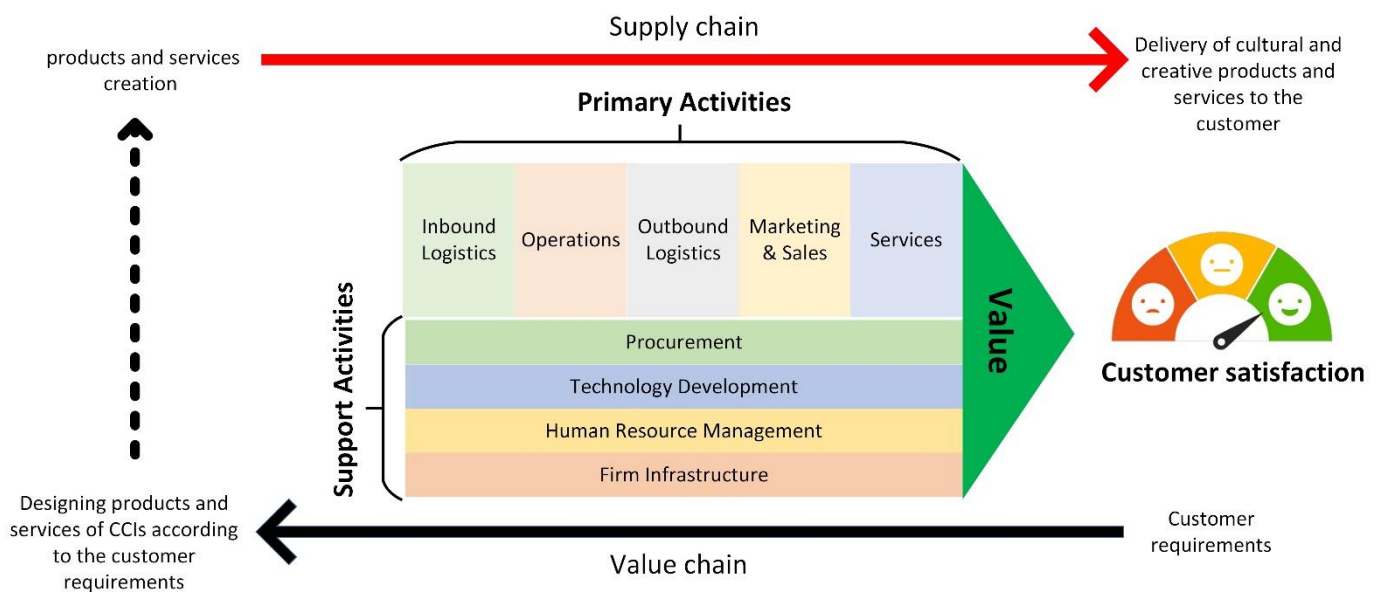


Figure 4. Context of the value and supply chains for CCIs.

## 5. Opportunities of Organizational Ergonomics to Promote Social Sustainability in CCIs

### 5.1. CCIs as a New Key Element of Strategic Development for Regional Competitiveness

CCIs have gained a lot of importance in the economy globally, although in some countries and regions of the world with more significant support. This positions CCIs as new key elements in governments' strategic programs to increase competitiveness, which did not happen in the past when CCIs were somewhat ignored. Nowadays, CCIs are part of the current and future economic model, and the actions taken in this sector will have noteworthy implications in other industries and in society itself [62–64]. Thus, CCIs have the opportunity to learn from the mistakes of other industrial sectors as well as to adopt and adapt the best practices of other sectors concerning organizational ergonomics and social sustainability. In addition, since CCIs are a relatively emerging industrial sector with less experience compared to other industrial sectors, it is relevant that they are already part of the regional economic and competitive model. Consequently, CCIs can accelerate the growth of their competitiveness relative to other conventional industrial sectors. This importance allows CCIs to be more innovative and thus become the reference for organizational ergonomics and social sustainability best practices of other industrial sectors [65].

### 5.2. Cohesion and Social Belonging

Social cohesion and belonging refer to the integration degree of citizens into their community or another group of people. Thus, the more united, supportive, and cohesive

this society is, the more harmonic the coexistence among its members will be, and collective benefit will be sought, since personal bonds are created. The foregoing is perfectly addressed and promoted much more by CCIs than by any other industrial sector. In particular, let us remember that although there are many classes of products and services offered by CCIs, each locality has native (or autochthonous) creative products and services, that is, products and services that are strictly related to the characteristics and dynamics of that locality. In this way, the community that consumes these services and products is involved in the dynamics of the CCIs, i.e., art, culture, and creativity strengthen social cohesion through the elimination of barriers that apparently interfere with mutual understanding and communication of people beyond language [66–69]. Considering the above, CCIs have a competitive advantage in raising awareness of social sustainability (both inside and outside the organization) due to their communal nature. In the same sense, within the organizational ergonomics framework, and considering the relevant social link of the CCIs, there is an opportunity to strengthen the organizational structures, norms, and rules of the CCIs concerning all dimensions of sustainability, focusing on social sustainability.

### *5.3. The Diversity of Cultural and Creative Expressions*

In general, diversity always has advantages and disadvantages, regardless of the social or business sector. In particular, the CCIs must maximize the advantages and minimize the disadvantages of diversity in their sector. The main advantage of the diversity of cultural and creative expressions is the heterogeneity not only of the products and services offered, but also of the wide market and the human resources involved in the value and supply chains. Thus, heterogeneity and diversity are used as competitiveness elements. Considering the aforementioned, it can be assumed that diversity and heterogeneity are highly related to social sustainability. For example, within CCIs, diversity must be promoted with greater force, allowing any individual, regardless of their gender, skin color, or ethnicity, to not be discriminated against or impeded from occupying any position in the organization. In this particular case, organizational ergonomics must provide for the inclusion of all people, giving them the same opportunities for development, which is related to social sustainability. The aforementioned is an opportunity for the CCIs, since due to their artistic, cultural, and creative nature, very diverse people coexist, and this is not so common in other industrial sectors [70–74].

## **6. Discussion**

### *6.1. Theoretical and Practical Implications*

This research work has important theoretical implications for social sustainability in CCIs based on ergonomic organization. Firstly, as mentioned above, there is a knowledge gap in this regard, that is, there are no scientific and technical contributions directly related to the main topic. Instead, all the bibliographic references consulted secondarily address the research problem. In the same sense, the analysis shown concerning the challenges and opportunities of social sustainability in CCIs using the theory and methods of organizational ergonomics in the post-pandemic can serve to support or develop new research lines, suggest ideas, share recommendations with the CCIs sector, and establish new hypotheses that allow particular solutions to be given for specific conditions of the sector considering the economic, political, and social conditions of each locality. In addition, it is considered that this work has a methodological utility, because, given the results of the literature review, there are no research or evaluation instruments directly related to the subject. Therefore, instruments can be created that allow specific information to be obtained for later validation. Concerning practical implications, this work has transcendental implications for a wide range of issues that may arise in other sustainability dimensions and industry sectors. This is because the relationship between organizational ergonomics and social sustainability in CCIs predominantly implies an interdisciplinary approach.

### 6.2. Managerial Implications

In a general way, the managerial implications summarize what the results mean in terms of the actions and activities carried out to achieve them. To clarify this view, the managerial implications compare the final results of a project with the actions carried out or omitted and decide what actions will or will not be carried out in the future as part of continuous improvement. Management implications also explicitly mention the actions that should and should not be done based on the findings of a project, since they affect stakeholders. Considering the above, the applicability of organizational ergonomics for development of social sustainability in CCIs will suggest an initial analysis particular to each company, and taking this as a starting point, decisions by senior management will be necessary to continue or change the actions that are carried out day to day in a particular company.

### 6.3. Limitations

It is important to clarify that due to the diversity of business dynamics of the CCIs worldwide, it is considered that the contributions presented in this report cannot be generalized to broader scenarios. Nonetheless, the analysis shown can contribute as a starting point for other research projects. In addition, due to the special relationship between diverse disciplines, terms, and sectors, e.g., social sustainability, ergonomic dimensions, and CCIs, the research approach presented is general. This is because it is not a research scenario commonly approached worldwide. In the same sense, there is no specific database directly related to the main idea of this research project, so the use of the literature and general databases produce an analysis and results that have a certain uncertainty level.

### 6.4. Implications for Future Studies

Due to the nature of this research work, and considering the interaction of various disciplines, it can be determined that there is a large number of research lines and projects that are feasible to deploy. The aforementioned must be consistent with the reality of CCIs in each region. In particular, the investigation of new norms and formal and standardized frameworks for the promotion of social sustainability in CCIs can be addressed. Likewise, sustainable innovation in the value and supply chain of CCIs can be promoted, considering the needs of all stakeholders. A transcendental aspect is the research and development of new marketing strategies aimed at vulnerable market sectors, that is, at groups of people with a certain level of vulnerability (in support of social sustainability). Projects related to closed and open innovation should also be proposed and deployed in the context of CCIs by strengthening organizational ergonomics for the promotion of people-centered innovation and the development of innovation ecosystems [75–77].

In the same way, the best practices for the creation and development of new spaces and work dynamics must be investigated, considering all ergonomic dimensions with a real sustainable sense where cohesion and social relevance are key elements of regional development. The resilience systems specially designed for CCIs based on the strengthening of institutional and human relationships should also be considered. Concerning human management as an essential element for developing social sustainability and organizational ergonomics of the CCIs, novel approaches must be addressed, for example, sustainable resources management, sustainable work systems, and sustainable human resources management [78]. In particular, traditionally, human resource management as a discipline has focused on added value through highly qualified employees. The above causes implicit distinctions between groups of workers; thus, generally, vulnerable groups have received less attention in training and specialization. In this fashion, this problem must be addressed for CCIs in a novel, structured, and sustainable way. Considering the aforementioned, vulnerable groups within CCIs represent an additional challenge, since they require interdisciplinary and innovative interventions with a social welfare perspective. In addition, deficiencies related to society in general (people who do not work in the CCIs) promote

low employability and participation in the labor market [79]. Undoubtedly, there are more options for approaching solutions to the problem mentioned in this paper.

Furthermore, there is a relationship between the effectiveness of internal and external communication for the achievement of the SDGs of any company. However, in the case of CCIs, the studies are minimal [80]. Therefore, it is important to address the optimal internal and external communication organizational structures of the CCIs to promote social sustainability. In addition, new design trends should be considered, specifically for complex problems and with a strong promotion of sustainability [81,82]. In this particular case, Transition Design, as a new methodology, should be investigated in the context of CCIs [83]. Transition Design is a transdisciplinary approach aimed at addressing the many problems (so-called wicked problems) confronting actual societies and enterprises, e.g., polarization, global pandemics, and lack of access to affordable housing/healthcare/education, among others. All of these are related to social sustainability. The aforementioned are also related to CCIs. Because these problems are interconnected, interdependent, and always manifest in place- and culture-specific ways, organizational ergonomics must establish particular frameworks according to need. Thus, the Transition Design methodology asserts that new knowledge and skill-sets are needed to address these situations as a strategy for igniting societal positive transitions toward more sustainable, equitable, and desirable long-term futures. In the CCIs context, Transition Design can be an important methodology to increase competitiveness and social sustainability based on organizational ergonomics.

Finally, Figure 5 shows the strategic planning curve for CCIs, which represents a general roadmap to improve the competitiveness of CCIs and strengthen the orange economy. In particular, the term “value” in the figure implies revenue, profit, and volume, among other parameters related to the products and services values of the CCIs or the orange economy. In this way, just after the pandemic, CCIs have challenges and opportunities that must be addressed through various initiatives deployed in the short or medium term (i.e., Today and Tomorrow, respectively). In this way, in the long term (i.e., Beyond), and through the weakening or disappearance of challenges and strengthening of opportunities, future market opportunities will be generated based on strategic ambitions or growth targets.

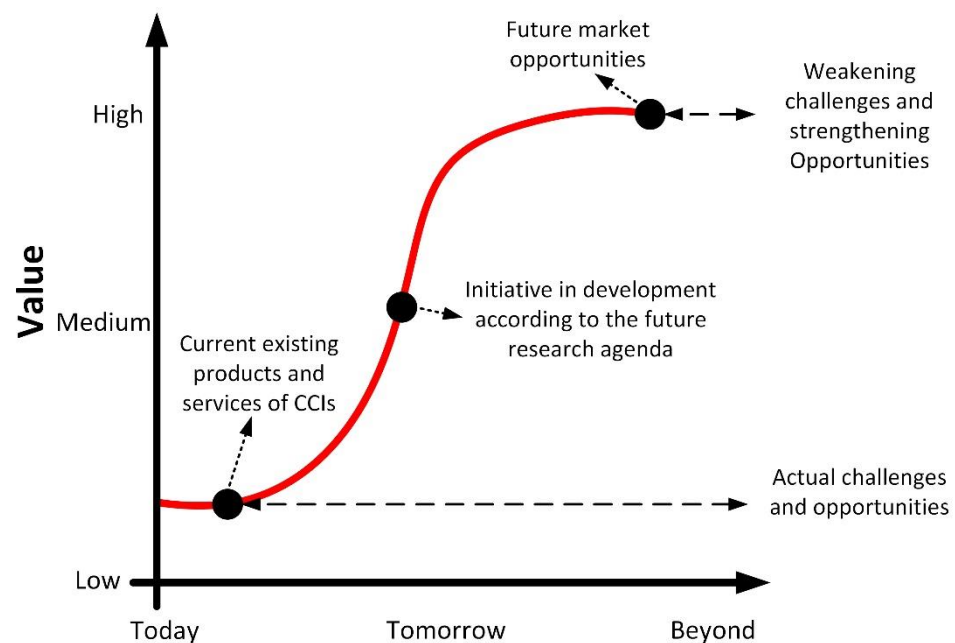


Figure 5. Strategic planning curve for CCIs.

## 7. Conclusions

This review article showed a critical analysis of the opportunities and challenges that CCIs present after the pandemic regarding the promotion of social sustainability based

on organizational ergonomics. Although there are specific challenges and opportunities due to other circumstances related to data accessibility and cultural, social, and economic factors, these challenges and opportunities could be expanded or detailed. However, the present work sought to synthesize them. A relevant finding is the lack of scientific and technical works related to organizational ergonomics and social sustainability in the CCIs context. Consequently, it is important to address diverse future research lines, as clarified in Section 6.4. The implications of the work were discussed in theoretical, practical, and managerial contexts, since the CCIs must establish post-pandemic frameworks appropriate to their needs.

**Author Contributions:** Conceptualization, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; methodology, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; formal analysis, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; investigation, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; resources, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; writing—original draft preparation, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; writing—review and editing, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; visualization, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G.; supervision, J.A.L.-L.; project administration, J.A.L.-L.; funding acquisition, G.J.M.-A., S.K.M.-M., J.A.L.-L. and V.M.R.-G. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** Not applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

- Bakar, N.A.; Rosbi, S. Effect of Coronavirus disease (COVID-19) to tourism industry. *Int. J. Adv. Eng. Res. Sci.* **2020**, *7*, 189–193. [[CrossRef](#)]
- Khan, K.I.; Niazi, A.; Nasir, A.; Hussain, M.; Khan, M.I. The effect of COVID-19 on the hospitality industry: The implication for open innovation. *J. Open Innov. Technol. Mark. Complex.* **2021**, *7*, 30. [[CrossRef](#)]
- Ogunnusi, M.; Hamma-adama, M.; Salman, H.; Kouider, T. COVID-19 Pandemic: The Effects and Prospects in the Construction Industry. *Int. J. Real Estate Stud.* **2020**, *2*, 120–128.
- Yazır, D.; Şahin, B.; Yip, T.L.; Tseng, P.H. Effects of COVID-19 on maritime industry: A review. *Int. Marit. Health* **2020**, *7*, 253–264. [[CrossRef](#)] [[PubMed](#)]
- Alkawasbeh, F. The effects of COVID-19 on restaurant industry: A perspective article. *J. Innov. Digit. Mark.* **2020**, *1*, 22–31. [[CrossRef](#)]
- Moon, S. Effects of COVID-19 on the Entertainment Industry. *J. Exp. Sci.* **2020**, *5*, 8–12.
- Priambodo, I.T.; Sasmoko, S.; Abidinagoro, S.B.; Bandur, A. E-Commerce Readiness of Creative Industry during the COVID-19 Pandemic in Indonesia. *J. Asian Financ. Econ. Bus.* **2021**, *8*, 865–873.
- Briant, S.; Crowther, P. Reimagining internships through online experiences: Multidisciplinary engagement for creative industries students. *Int. J. Work-Integr. Learn.* **2020**, *21*, 617–628.
- Peñarroya-Farell, M.; Miralles, F. Business Model Adaptation to the COVID-19 Crisis: Strategic Response of the Spanish Cultural and Creative Firms. *J. Open Innov. Technol. Mark. Complex.* **2022**, *8*, 39. [[CrossRef](#)]
- Majduchova, H.; Kmety Bartekova, M. Impact of COVID-19 on the Creative Industries in Slovakia: Evaluation and Elimination. *SHS Web Conf.* **2021**, *129*, 01020. [[CrossRef](#)]
- González, B.; Annayeskha, G. Economy of the 21st century: Orange economy. *Rev. Cienc. Soc.* **2020**, *26*, 450–464.
- De Beukelaer, C. Creative industries in “developing” countries: Questioning country classifications in the UNCTAD creative economy reports. *Cult. Trends* **2014**, *23*, 232–251. [[CrossRef](#)]
- Bilan, Y.; Vasilyeva, T.; Kryklii, O.; Shilimbetova, G. The creative industry as a factor in the development of the economy: Dissemination of european experience in the countries with economies in transition. *Creat. Stud.* **2019**, *12*, 75–101. [[CrossRef](#)]
- Koehorst, M.M.; van Deursen, A.J.A.M.; van Dijk, J.A.G.M.; de Haan, J. Exploring the creative industries: Toward a classification by process and job functions. *J. Innov. Manag.* **2019**, *7*, 69–95. [[CrossRef](#)]
- Singh, P.; Brown, D.M.; Chelekis, J.; Apostolidis, C.; Dey, B.L. Sustainability in the beer and pub industry during the COVID-19 period: An emerging new normal. *J. Bus. Res.* **2022**, *141*, 656–672. [[CrossRef](#)]
- Kovaitė, K.; Šumakarīs, P.; Korsakienė, R. Sustainability in creative and cultural industries: A bibliometric analysis. *Creat. Stud.* **2022**, *15*, 278–298. [[CrossRef](#)]

17. Wilson, J.R. Fundamentals of ergonomics in theory and practice. *Appl. Ergon.* **2000**, *31*, 557–567. [[CrossRef](#)]
18. Tosi, F. Ergonomics and sustainability in the design of everyday use products. *Work* **2012**, *41*, 3878–3882. [[CrossRef](#)]
19. Buchel, S.; Hebinck, A.; Lavanga, M.; Loorbach, D. Disrupting the status quo: A sustainability transitions analysis of the fashion system. *Sustain. Sci. Pract. Policy* **2022**, *18*, 231–246. [[CrossRef](#)]
20. Muafi, M.; Roostika, R. MSMEs Business Sustainability Models in Indonesia. *Int. J. Sustain. Dev. Plan.* **2022**, *17*, 207–217. [[CrossRef](#)]
21. Ferreira-Seoane, F.J.; Llorca-Ponce, A.; Rius-Sorolla, G. Measuring the Sustainability of the Orange Economy. *Sustainability* **2022**, *14*, 3400. [[CrossRef](#)]
22. Li, M.; Sun, H.; Agyeman, F.O.; Su, J.; Hu, W. Efficiency Measurement and Heterogeneity Analysis of Chinese Cultural and Creative Industries: Based on Three-Stage Data Envelopment Analysis Modified by Stochastic Frontier Analysis. *Front. Psychol.* **2022**, *12*, 823499. [[CrossRef](#)] [[PubMed](#)]
23. Meyer, C.; Gerlitz, L.; Klein, M. Creativity as a Key Constituent for Smart Specialization Strategies (S3), What Is in It for Peripheral Regions? Co-creating Sustainable and Resilient Tourism with Cultural and Creative Industries. *Sustainability* **2022**, *14*, 3469. [[CrossRef](#)]
24. Viola, S. Built Heritage Repurposing and Communities Engagement: Symbiosis, Enabling Processes, Key Challenges. *Sustainability* **2022**, *14*, 2320. [[CrossRef](#)]
25. Farrer, J. Sustainable neighbourhood gastronomy: Tokyo independent restaurants facing crises. *Asia Pac. Viewp.* **2022**, *1*, apv.12339. [[CrossRef](#)]
26. Karuppiah, K.; Sankaranarayanan, B.; Ali, S.M.; Kabir, G. Role of ergonomic factors affecting production of leather garment-based SMEs of India: Implications for social sustainability. *Symmetry* **2020**, *12*, 1414. [[CrossRef](#)]
27. Lin, C.J.; Efranto, R.Y.; Santoso, M.A. Identification of workplace social sustainability indicators related to employee ergonomics perception in Indonesian industry. *Sustainability* **2021**, *13*, 11069. [[CrossRef](#)]
28. Gruchmann, T.; Mies, A.; Neukirchen, T.; Gold, S. Tensions in sustainable warehousing: Including the blue-collar perspective on automation and ergonomic workplace design. *J. Bus. Econ.* **2021**, *91*, 151–178. [[CrossRef](#)]
29. Korkulu, S.; Bona, K.; Peter, T. Developing a Model with Ergonomic Aspects Using Endurance Time and Rest Allowance for Supporting the Optimization of Production Line Material Supply: A Case of Single-Operator Multi-Materials. *Math. Probl. Eng.* **2021**, *2021*, 9957299. [[CrossRef](#)]
30. Siska, M.; Candra, R.M.; Saputra, E.; Zein, M.; Wenda, A.; Yanti, N. Application of Novel Ergonomic Postural Assessment Method in Indonesia Creative Industry Centers. In Proceedings of the 2019 International Conference on Engineering, Science, and Industrial Applications, ICESI 2019, Tokyo, Japan, 22–24 August 2019; pp. 1–6.
31. Lin, P.H. A study of applying saisait tribe's tabaa sang (Buttocks bell) into cultural creative industry from a cross-disciplinary perspective. In *Advances in Social and Organizational Factors*; CRC Press: Boca Raton, FL, USA, 2012; pp. 767–778.
32. Purvis, B.; Mao, Y.; Robinson, D. Three pillars of sustainability: In search of conceptual origins. *Sustain. Sci.* **2019**, *14*, 681–695. [[CrossRef](#)]
33. Podrecca, M.; Sartor, M.; Nassimbeni, G. United Nations Global Compact: Where are we going? *Soc. Responsib. J.* **2022**, *18*, 984–1003. [[CrossRef](#)]
34. Eizenberg, E.; Jabareen, Y. Social sustainability: A new conceptual framework. *Sustainability* **2017**, *9*, 68. [[CrossRef](#)]
35. Vinthagen, S. Ten theses on why we need a “Social Science Panel on Climate Change”. *ACME Int. J. Crit. Geogr.* **2013**, *12*, 155–176.
36. Grundmann, R.; Stehr, N. Climate Change: What Role for Sociology? A Response to Constance Lever-Tracy. *Curr. Sociol.* **2010**, *58*, 897–910. [[CrossRef](#)]
37. Dean, K.; Trillo, C.; Bichard, E. Assessing the value of housing schemes through sustainable return on investment: A path towards sustainability-led evaluations? *Sustainability* **2017**, *9*, 2264. [[CrossRef](#)]
38. Flecha, R. Contributions from social theory to sustainability for all. *Sustainability* **2020**, *12*, 9949. [[CrossRef](#)]
39. Hale, J.; Legun, K.; Campbell, H.; Carolan, M. Social sustainability indicators as performance. *Geoforum* **2019**, *103*, 47–55. [[CrossRef](#)]
40. Benoît, C.; Vickery-Niederman, G. Social Sustainability Assessment Literature Review. *Sustain. Consort. White Pap.* **2010**, *102*, 1–34.
41. Torres, Y.; Rodríguez, Y. Emergence and evolution of ergonomics as a discipline: Reflections on the school of human factors and the school of ergonomics of the activity. *Rev. Fac. Nac. Salud Pública* **2021**, *39*, e342868.
42. Murrell, K. *Ergonomics: Man in His Working Environment*; Chapman and Hall Ltd.: London, UK, 1965.
43. World Health Organization. Global patient safety action plan 2021–2030: Towards zero patient harm in health care. *J. Chem. Inf. Model.* **2020**, *1*, 1–59.
44. Moreno, C.R.C.; Marqueze, E.C.; Sargent, C.; Kenneth, P.W., Jr.; Sally, A.F.; Philip, T. Working time society consensus statements: Evidence-based effects of shift work on physical and mental health. *Ind. Health* **2019**, *57*, 139–157. [[CrossRef](#)] [[PubMed](#)]
45. Meyer, C.F. Sustainability and Ergonomics. *Rev. Ergon. Invest. Desar.* **2020**, *2*, 7–10.
46. Neusa, A.G.; Alvear, R.R.R.; Argoti, R.C.E. Physical Disergonomic Risks in the Warehouses of Poultry Farms. *J. Alt. Perspect. Soc. Sci.* **2018**, *9*, 421–439.
47. Piñeda, A.G.; Montes, P.G. Ergonomía Ambiental: Iluminación y Confort Térmico en Trabajadores de Oficinas con Pantalla de Visualización de Datos. *Rev. Ing. Mat. Cienc. Inf.* **2014**, *1*, 55–78.

48. Velázquez, G.C.A.; Mendoza, C.A.D. Ergonomic Risk Affecting Business Work at Chine Civi Hospital. *Rev. ECA Sinerg.* **2017**, *8*, 75–84.
49. Sztarcsevszky, S.G. Contribución de la Macroergonomía al Estudio de la Adaptación Humana al Trabajo. *Rev. Ergon. Invest. Desar.* **2019**, *1*, 51–70.
50. Snowball, J.; Mapuma, A. Creative industries micro-enterprises and informality: A case study of the Shweshwe sewing industry in South Africa. *J. Cult. Econ.* **2021**, *14*, 194–208. [[CrossRef](#)]
51. Flew, T.; Cunningham, S. Creative industries after the first decade of debate. *Inform. Soc.* **2010**, *26*, 113–123. [[CrossRef](#)]
52. Radomska, J.; Silva, S. The balance between formal and informal managerial practices—Managing ambidexterity in creative industries. *Pol. J. Manag. Stud.* **2018**, *18*, 259–271. [[CrossRef](#)]
53. Hadisi, S.; Snowball, J. Employment in the Cultural and Creative Industries in South Africa. *Afr. Rev. Econ. Financ.-AREF* **2020**, *12*, 84–109.
54. Terpstra, D.E.; Rozell, E.J. The Relationship of Staffing Practices to Organizational Level Measures of Performance. *Pers. Psychol.* **1993**, *46*, 27–48. [[CrossRef](#)]
55. Sánchez-Jofras, J.F.; Kuri-Alonso, I. Employment distribution in the cultural and creative industries of Baja California, Mexico. *Probl. Desarro.* **2020**, *51*, 63–89.
56. Primorac, J. From Insecurity to Insecurity: Work and Employment in Cultural and Creative Industries. *Rev. Sociol.* **2012**, *42*, 5–30. [[CrossRef](#)]
57. Mossig, I. Regional Employment Growth in the Cultural and Creative Industries in Germany 2003–2008. *Eur. Plan. Stud.* **2011**, *19*, 967–990. [[CrossRef](#)]
58. Betzler, D.; Leuschen, L. Digitised value chains in the creative industries: Is there a convergence of Swiss film and game production? *Creat. Ind. J.* **2021**, *14*, 226–244. [[CrossRef](#)]
59. Madudová, E. Creative industries value chain: The value chain logic in supply chain relationships. *Mark. Brand. Res.* **2017**, *4*, 227–235. [[CrossRef](#)]
60. Wang, X. Research on the Formation and Development of Value Chain of Creative Industry. In Proceedings of the 2nd International Forum on Management, Education and Information Technology Application, Shenzhen, China, 16–17 October 2017; pp. 163–169.
61. Alexandri, M.B.; Arifianti, R.; Fordian, D.; Lubis, R. Creative business: Analysis of creative industry value chains for application and game developers. *Acad. Strateg. Manag. J.* **2021**, *20*, 1–10.
62. Wahba, S.; Chun, Y. Practice papers: Orange is the new colour of city competitiveness: The role of local governments in promoting cultural and creative industries. *J. Urban Regen. Renew.* **2022**, *15*, 136–149.
63. Cacciatore, S.; Panozzo, F. Strategic mapping of cultural and creative industries. The case of the Veneto region. *Creat. Ind. J.* **2022**, 1–17. [[CrossRef](#)]
64. Munizu, M.; Pono, M.; Armayah. The development model of creative industry competitiveness: Case in South Sulawesi, Indonesia. *Qual.-Access Success* **2021**, *22*, 40–45.
65. Corallo, A.; Lazoi, M.; Marra, M.; Quarta, L.; Rimini, A.; Liaci, C. A processes reference framework for creative and cultural industries. *CEUR Workshop Proc.* **2019**, *2428*, 73–84.
66. Jones, C.; Lorenzen, M.; Sapsed, J. Creativity and creative industries. In *Oxford Handbook of Creative Industries*; Oxford University Press: Oxford, UK, 2012; pp. 171–183.
67. Osorio García-Oteyza, M.; Jiménez-Sosa, M. Entrepreneurial immigrants' mobility with cultural and creative initiatives in Madrid's Community. *Iberoam. J. Dev. Stud.* **2018**, *7*, 85–107.
68. Min, C.J.; Lee, W. A Study on the Spatial Patterns of Creative Industries and Their Social Cohesion Effects in the Seoul Metropolitan Area. *J. Econ. Geogr.* **2014**, *17*, 660–674.
69. UNCTAD. *Creative Economy Report 2010, Creative Economy: A Feasible Development Option*; United Nations: New York, NY, USA, 2020; pp. 392–423.
70. Lyubareva, I.; Benghozi, P.J.; Fidele, T. Online Business Models in Creative Industries: Diversity and Structure. *Int. Stud. Manag. Organ.* **2014**, *44*, 43–62. [[CrossRef](#)]
71. Iwabuchi, K. Cool Japan, Creative Industries, and Diversity. In *Re-Imagining Creative Cities in Twenty-First Century Asia*; Springer International Publishing: New York, NY, USA, 2020; pp. 187–199.
72. Kekezi, O. Diversity of experience and labor productivity in creative industries. *J. Labour Mark. Res.* **2021**, *55*, 18. [[CrossRef](#)]
73. Ruth Eikhof, D. Analysing decisions on diversity and opportunity in the cultural and creative industries: A new framework. *Organization* **2017**, *24*, 289–307. [[CrossRef](#)]
74. Richieri Hania, L. The UNESCO Convention on the Diversity of Cultural Expressions as a coordination framework to promote regulatory coherence in the creative economy. *Int. J. Cult. Policy* **2016**, *22*, 574–593. [[CrossRef](#)]
75. Yun, J.J.; Liu, Z.; Jeong, E.; Kim, S.; Kim, K. The Difference in Open Innovation between Open Access and Closed Access, according to the Change of Collective Intelligence and Knowledge Amount. *Sustainability* **2022**, *14*, 2574. [[CrossRef](#)]
76. Morgan, T.; Obal, M.; Jewell, R.D. Strategic change and innovation reputation: Opening up the innovation process. *J. Bus. Res.* **2021**, *132*, 249–259. [[CrossRef](#)]
77. Barbic, F.; Jolink, A.; Niesten, E.; Hidalgo, A. Opening and closing open innovation projects: A contractual perspective. *Ind. Mark. Manag.* **2021**, *94*, 174–186. [[CrossRef](#)]

78. Gajšek, B.; Draghici, A.; Boatca, M.E.; Gaureanu, A.; Robescu, D. Linking the Use of Ergonomics Methods to Workplace Social Sustainability: The Ovako Working Posture Assessment System and Rapid Entire Body Assessment Method. *Sustainability* **2022**, *14*, 4301. [[CrossRef](#)]
79. Van Berkel, R.; Ingold, J.; McGurk, P.; Boselie, P.; Bredgaard, T. Editorial introduction: An introduction to employer engagement in the field of HRM. Blending social policy and HRM research in promoting vulnerable groups' labour market participation. *Hum. Resour. Manag. J.* **2017**, *27*, 503–513. [[CrossRef](#)]
80. Mihai, C.; Borza, M.; Talmaciu, M. Reaching the objectives of sustainable development on the basis of the creative industries—A South and Eastern European analysis. *Sci. Ann. Econ. Bus.* **2016**, *63*, 109–116. [[CrossRef](#)]
81. Meredith, D. *Design Futures Trend: Complex Problems*; American Institute of Graphic Arts: New York, NY, USA, 2018; pp. 1–9.
82. Maher, R.; Maher, M.; McAlpine, C.A.; Mann, S.; Seabrook, L. Overcoming barriers to sustainability by combining conceptual, visual, and networking systems. *Sustain. Sci.* **2018**, *13*, 1357–1373. [[CrossRef](#)]
83. Irwin, T. Transition design: A proposal for a new area of design practice, study, and research. *Des. Cult.* **2015**, *7*, 229–246. [[CrossRef](#)]