The recent years have been unique and challenging due to the global pandemic changing the way of living, the priorities and the approach taken to tackle several issues. 21st century has already been an age in which global health issues regarding the workforce were intensively discussed, among which burnout can be considered as one of the most severe issues. The COVID-19 pandemic obviously exerted a magnifying impact. Sustainability is nowadays considered in all aspects of business and economics; and it is not possible to address sustainability without taking human factor into account. Employee well-being is the core of any relevant step taken in the way of sustainability. On the other hand, projects and project management roughly correspond to the 20% of global economic activities, rising to 30% in emerging economies. The paper addresses the topics briefly introduced above, discussing burnout in the context of project management through an extensive literature review, with the purpose of introducing a new and focused definition for project burnout by utilizing existing approaches of sustainability, burnout, the job demands resources model and project complexity. A novel, clear definition for
project burnout is an important steppingstone for addressing project performance and for eventually contributing to a sustainable project management approach. As such, useful and applicable practical solutions for sustainability in the project driven businesses are then suggested. Several future research directions are also discussed in the study.

**Keywords:** burnout, project management, project complexity, job demands resources model, sustainability.

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**Introduction**

Global business has always been a complex and complicated field of interest due to fierce competition and rivalry. Globalization of entrepreneurship should also deal with issues such as global climate change, environmental sustainability, and social justice. As such, operating in the global business arena and tackling managerial issues have become even more challenging. The 21st century has been an era of new challenges, and therefore established approaches and existing perspectives are not sufficient to tackle current problems and achieve ambitious goals.

The pandemic has altered the world as we know it in the recent years and has already caused critical issues regarding the physical and mental well-being of global active work force. Therefore, it is obvious that any debate about business or management should take the human factor into account. If this requisite is not met, management would be incapable of understanding the dynamics of real-life cases and would fail to offer any real solutions and practical suggestions.

The purpose of the study is to present a framework for discussing burnout within the scope of project management with an end goal to support sustainability. Initially, the concept of burnout will be introduced underlining its significance in the workforce. The importance of burnout in the context of project management will be further discussed. The existing approaches will be linked to propose a definition for project burnout. Burnout will be elaborated from the perspective of sustainability. Finally, possible future directions will be briefly discussed with the aim of creating a unique field of research within the cross section of burnout, project management and sustainability fields.

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**Literature Review**

**Definition of burnout and its importance in the human sector**

Burnout is one of the dominating themes present in current organizational behavior, management and business studies. It is assumed that work-related stress, which poses the risk of leading to burnout, is becoming more significant every day. Thus, it is not possible to find long term and global sustainable solutions for environmental economics without taking human related concepts into account.

The concept of burnout has obtained a literature of its own in the last 30 years. Maslach and Leiter, who can be considered as the founders of the field, suggested that burnout already reached to a status of an epidemic among North American workers by the year 1997 (Maslach and Leiter, 1997). Burnout is defined as “a fundamental crisis in the psychological connections that people establish with work” and “a long-term consequence of mental strain” by Leiter and Maslach (Leiter and Maslach, 2016). Furthermore, a “workplace burnout” has been defined as “a crisis in a person’s relations with work”. A widely recognized and utilized tool to measure burnout – Maslach Burnout Inventory – has been proposed (Maslach et al., 2010). Burnout comprises of exhaustion, cynicism and professional inefficacy (Maslach and Leiter, 1997). Exhaustion can be described as wearing out, loss of energy, depletion and fatigue. It can be summarized as a feeling of having too much to do but lacking energy and motivation to complete the tasks. Cynicism is exhibited as depersonalization, negative or inappropriate attitudes towards clients or coworkers, irritability, loss of idealism and withdrawal. Finally, professional inefficacy is a reduced feeling of personal
accomplishment, reduced productivity or capability, low morale and inability to cope with the requirements of the work. It can be stated that a wide range of feelings and thoughts can be seen in the case of burnout and an individual may gradually go through the stages described or experience any single one of them (Maslach and Leiter, 1997).

The factors leading to burnout and the outcomes of burnout have also been discussed and studied widely in the research field. Maslach and Leiter list 6 main factors that lead to the state of burnout which are work overload, lack of control, insufficient reward, breakdown of community, absence of fairness and conflicting values (Maslach and Leiter, 1997). It is evident that most of the items can be directly linked to the project management environment and sustainability initiatives taken by organizations. The outcomes of burnout are severe and have a direct impact on organizations, such as declining organizational performance through financial and productivity losses (Maslach and Leiter, 1997).

The notion of burnout continues today to be a prominent field of scientific research. Balducci et al. investigated how work addiction mediates emotional exhaustion (Balducci et al., 2021), while Schaufeli et al. underlined the relation between burnout and workaholism through their search for the development of an assessment tool for measuring burnout (Schaufeli et al., 2020). Franco et al. studied the burnout amongst health workers focusing on the impact of empathy and alexithymia (Franco et al., 2020). According to the above mentioned research, burnout is a complicated and entangled issue, yet a promising field of research that is critical for the improvement of global business environment.

It should also be noted that burnout has been included as a mental and behavioral disorder in the 11th International Classification of Diseases by the World Health Organization (WHO), which underlines the importance of the ailment (WHO, 2018). The WHO also gives a definition for burnout as “a state of vital exhaustion”. Furthermore, it is referred as an “occupational” phenomenon rather than a mental illness. Unlike the early works that consider burnout to be a mental problem rising mainly due to the individual’s personal characteristics or inclinations, today it is accepted as a syndrome resulting from chronic workplace stress (WHO, 2018; Drayton, 2021).

**Burnout in the context of project management**

Burnout is a significant concept; however, studies covering burnout in the context of project management and project-related work are limited so far. Thus, it can be identified as a gap in the literature and a promising domain of research, considering the importance of projects in a global business arena and the prevalence of project management approaches in the business life. Project management corresponds to roughly 20% of all global economic endeavors, which is around 30% for the emerging countries and economies (Darling and Whitty, 2019). Project management is an established industry on its own, receiving attention from both academic and business environments. Several fads and fashions such as lean and agile have been developed within this domain and have been dominating the business culture. Therefore, a focused attention can be of great use to deal with current issues.

In addition to the significance of the project management domain, workplace well-being is a critical issue, since the costs of work-related stress and disengagement are billions of dollars per year (PMI, 2017). It is fair to state that the concept of burnout will be holding its trending position in the near future amongst several well-being issues and a significant contribution can be expected to be made by this study considering the size and coverage of project management industry.

Furthermore, project-based work is complex, highly demanding, dynamic and fast-paced due to the demands related with schedules, budgets, complex nature of stakeholder relations and quality expectations. These constraints and stressors are root causes of conflict and lead to certain outcomes related with workplace well-being, including burnout (Jugdev et al., 2018; Pinto et al., 2014). Therefore, it can be stated that project management can be labelled as a burnout friendly environment, which underlines the fact that the addressed gap is crucial.
The six main factors leading to burnout (Maslach and Leiter, 1997) are obviously valid for project environment, yet they can be considered as general. The discussions should be carried on in order to deliver a more tailor made approach for project management cases specifically. The inherent nature of project work is quite unique and project management professionals face special challenges. Therefore, other approaches and theoretical perspectives may be utilized in order to better understand and map the parameters of projects that may eventually lead to a state of burnout.

**Linking burnout and project management**

A limited number of scientific works have examined the link between burnout and project management. Those works are beneficial to underline the significance of the theme, to understand how project environment can result in burnout and work-related mental problems, and more importantly shed light on the path to develop a framework for the field, since they utilize several instruments and approaches to form a connection and link the existing domains.

To start with, Jugdev et al. stated that burnout might differ in different projects, that it is crucial to preserve project manager’s well-being, engagement and retention and that understanding the stressors in project environment is an important step to take. The researchers also introduced and discussed two instruments – Maslach Burnout Inventory and Areas of Worklife Survey (Jugdev et al., 2018).

Pinto et al. utilized the job demand control support (JDCS) model to link burnout and project management theories. Thus, they identified burnout as the outcome of the difference between demands of the project and perceived control of a project manager (Pinto et al., 2014). The researchers utilized not only Maslach Burnout Inventory to assess burnout of individuals but also the Job Content Questionnaire and the Job Autonomy Scale as well. Budget and project duration had no significant relationship with burnout according to the study; however, the outcomes are questionable due to the lack of diversity of the sample.

Patanakul et al. studied the impact of running multiple projects on motivation of the personnel, since it is a hectic and confusing environment due to the switching daily and hourly contexts, attending to projects in various stages, dealing with shareholders from different backgrounds having a great variety of agendas and perspectives and facing chaotic demands (Patanakul et al., 2016).

Darling and Whitty acknowledge projects as a source of stress. According to their review, project work related stressors are grouped as intrinsic to the job, related to the role in the organization, related to the significance for career development, relevant to work relationships, or relevant to the organizational structure and climate. Ambiguity is specifically pointed out as a primary source of burnout, while uncertainty and complexity are discussed as additional causes. Since project managers are accountable and responsible but they possess little or almost no real authority in the organizations, this is a cause of stress. Unachievable deadlines, ambiguity of goals and roles and high expectations are some of the several factors that make the case even worse (Darling and Whitty, 2019).

The construction industry is a good model for studying project burnout since it is clearly project related. Wu et al. explore the relationship between role stress, burnout and performance. The job demand resources model is used and career calling is evaluated as a moderator in the model. The outcomes indicate that role ambiguity and role conflict have an impact on burnout, while burnout negatively affects performance (Wu et al., 2019).

A study by Song et al. focuses on the association between subjective fit perceptions, distress, emotional exhaustion and work engagement. Interestingly, younger workers are proved to be more vulnerable to stress and work functioning problems due to their lack of experience (Song et al., 2020).

Similarly, Liang et al. studies stress symptoms and coping mechanisms, as the project environment has high performance expectations regarding cost, time and quality (Liang et al., 2018). Tijani et al. also define construction project work as a profession with long hours of work and an environment which is inflexible and complex. They use the work-life balance (WLB) perspective and address workplace culture, tight schedule expectations and project resourcing as sources of poor WLB (Tijani et al., 2020a).
Finally, Tijani et al. analyze the mental health of construction project workers, underlining the fact that construction project related stressors have been ignored in the literature so far, specifically mentioning that project complexity, program management and organizational structure, antecedents of project related mental ill-health, have not been explored in the literature enough to make significant contribution (Tijani et al., 2020b).

To sum up, existing literature focusing on burnout in the context of project management shows that there are several properties of projects and project environment that have impact on burnout related outcomes; however, a comprehensive study is not present. In addition, there are tools and approaches that may be utilized to conduct studies and initially proposing a unique definition for project burnout.

**Results and Discussion**

**Defining project burnout**

As stated in the previous sections, there are several theoretical approaches and useful tools to further investigate the cross section of burnout and project management. Primarily, a clear definition of project burnout would be a promising step.

To start with, there is already a valid definition for burnout, which is “a fundamental crisis in the psychological connections that people establish with work and a long-term consequence of mental strain” (Leiter and Maslach, 2016). Furthermore, Maslach Burnout Inventory – General Survey is a widely applicable tool that can be used to measure and assess burnout, covering each aspect of burnout, i.e., exhaustion, cynicism and professional inefficacy (Jugdev et al., 2018; Pinto et al., 2014).

Additionally, the job demands resources model (JDRM) can be utilized. It defines strain as a response to the lack of balance between demands expected from an individual and the resources that the individual possesses to fulfill those demands. Both job demands and job resources can be physical, psychological, social or organizational (Pinto et al., 2014; Wu et al., 2019). This approach also has the advantage of being applicable in a wide range of work setting, including projects.

Finally, the concept of project complexity offers a comprehensive framework covering several aspects regarding the nature of any project endeavor such as organizational parameters, team relevant concepts and individual dimensions as well as project-based metrics.

Baccarini, as one of the pioneers in the field of project complexity, defines the term of project complexity as “consisting of many varied interrelated parts.” In addition, he operationalizes complexity into two terms: differentiation and interdependency, which can be considered under two titles that are “organizational complexity” and “technological complexity” (Baccarini, 1996).

Vidal and Marle discuss and develop a project complexity framework upon the foundations laid by Baccarini, introducing project complexity as “the property of a project which makes it difficult to understand, foresee and keep under control its overall behavior, even when given reasonably complete information about the project system”. The drivers of complexity are project size, project variety, project interdependence and project context (Vidal and Marle, 2008).

**Fig. 1** is prepared to briefly summarize the complexity framework.

**Fig. 1.** Outline of project complexity framework (data from Baccarini, 1996; Vidal and Marle, 2008)

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<tr>
<th>Organizational Complexity</th>
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<td>• Project System Size</td>
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<td>• Interdependencies within the Project System</td>
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<th>Technological Complexity</th>
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<td>• Interdependencies within the Project System</td>
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There are several approaches to handle the project complexity, including positivistic modelling, complexity theory and managerial framework. Managerial framework is a valid approach in the case of connecting burnout studies since it is a close perspective to perceived project complexity and has a subjective notion. The subjectivity of perceived complexity is justified and briefly explained by Mikkelsen as complexity being in the eye of the beholder (Mikkelsen, 2020). Any of the mentioned approaches for identifying project complexity can be considered as valid, since the main purpose of using this approach is to fully address any project related parameters.

Based on the perspectives above, a brief definition for the term “project burnout” may be derived. It should be defined underlining the impact and role of a project and project related parameters on the creation of the burnout state, while addressing any individual participating in project management. Thus, a fair definition for project burnout is considered to be “a fundamental crisis in the psychological connections of any individual with the work, resulting from long-term consequence of mental strain caused by project-related parameters and imbalance between project demands and project resource”.

As stated before, there is a limited number of works that have already investigated burnout in the context of project management. Empirical studies linking project related parameters and burnout correspond to an even narrower range of studies. Patanakul et al. investigate the project personnel working in multiple projects simultaneously, which can be identified as project system variety or interdependencies within project system parameters under organizational complexity (Patanakul et al., 2016). Meanwhile, Darling and Whitty model projects as sources of stressors at work, categorizing stressors into two as intrinsic to job and role in an organization, which corresponds to technological and organizational complexity, respectively (Darling and Whitty, 2019). Still, it is fair to state that existing studies clearly show that burnout in the context of project management can be directly linked to project complexity, since they are identifying several parameters from the project complexity scheme as a source. Depending on the proposed definition, the burnout measured in the mentioned articles can be identified as project burnout, as they are induced by project-related parameters.

**Project Burnout from the Perspective of Sustainability**

The cross section of the fields of sustainability and project management is also a mildly neglected domain of research. Any contribution is especially needed to develop some tools and methodologies in project management to investigate project and organizational level sustainability (Martens and Carvalho, 2017). A widely accepted the Triple Bottom Line (TBL) approach, which is suggested by Elkington, is a useful perspective to position burnout in the discussions related with sustainability (Elkington, 1998). According to TBL, the triangle defining sustainability for the organization is made up of economic, environmental and social pillars (Elkington, 1998). Social sustainability aspect covers internal and external communities and is generally ignored and overlooked by researchers and practitioners. Social sustainability underlines the importance and necessity of ensuring quality of life and responsible governing structures (Elkington, 1998), which is directly linked to employee well-being within an organization and community.

Furthermore, the United Nations Development Programme (UNDP) adopted sustainable development goals (SDGs) as a call for action to solve several sustainability and environment related global problems. There are several SDGs which can be directly linked with workforce mental well-being such as SDG-3 “Good Health and Well-Being”, SDG-8 “Decent Work and Economic Growth” and SDG-12 “Responsible Consumption and Production”. One specific target of SDG-8 is to protect labor rights and promote safe working environments, while SDG-12 aims to support countries to strengthen their capacity to move towards a more sustainable pattern of production (EEA, 2019). Similar to the TBL approach, SDGs are also founded upon three pillars; social, environmental and economic. The UNDP clearly insists on handling goals as a chain of integrated and indivisible items (EEA, 2019). SDG-17 particularly calls for partnerships and integration for holistically reaching to desired
outcomes. Therefore, it is not possible to consider any of these dimensions solely. Each goal is deeply linked with another and eventually with environmental goals, including employee well-being. The widely used Fig. 2 briefly visualizes the integrity of SDGs and how they are indispensable to achieve sustainability as an end goal.

Fig. 2. Pillars of TBL and SDGs

There are several studies covering issues regarding the social pillar of the sustainability. Ericson et al. investigate the relationship between mindfulness and sustainability, underlining the link between well-being and sustainable behavior. In addition, it is stated that any technological mean of tackling any environmental or social issue cannot be achieved without the social pillar of the triangle, verifying the fact that social dimension is indispensable (Ericson et al., 2014). From a different perspective, Barthauer et al. discuss the contribution of burnout to the career instability and unsustainability through turnover intentions, which is a great source of loss from the organizational point of view (Barthauer et al., 2020). Selden and Sowa state that even voluntary turnover can result in a significant cost to a non-profit organization while threatening their sustainability (Selden and Sowa, 2015). It is a vital sign showing the impact of turnover on sustainability, even in non-profit organizations, which proves that losses are damaging any organization from the sustainability point of view.

Finally, any form of sustainability is achievable through retaining top talents in any organization. Aguinis et al. contribute to our discussion by signifying the importance of talent war among organizations to hire and retain top skills in order to achieve greater revenues, profit, overall success and achieving long-term ambitions of organizational competitiveness, sustainability and survival. It is stated that 65% of executives and managers report a deficit of top talent in leadership positions, while only 10% report that their companies retain their top talents (Aguinis et al., 2012). In times of fierce competition, sustaining an environment for employee well-being is clearly important for achieving long-term ambitions.

To sum up, attaining the goals presented by the UNDP, creating a sustainable way of management, facing environmental challenges and solving issues require a comprehensive and global act in several fronts. Promoting and protecting mental well-being of global workforce is a momentous step on the way.

Conclusions and Future Directions

Burnout is already a significant field of study, which receives an increasing attention in the light of recent developments in the global business arena. The rising importance of concepts such as sustainability and circular economy is making employee well-being, particularly burnout in our context, more and more relevant in any future prospects and endeavors that have the purpose of developing workplace and business environment. As projects correspond to a great amount of global economics, studies directly addressing and evaluating project-based activities and organizations are of great importance. Thus, supplying a clear and comprehensive definition for the term “project burnout” is an important milestone for establishing a legitimate field of research. The study aims to provide a definition for the term and support further discussions regarding burnout within the context of project management. Linking burnout to project management through the concept of project complexity also has the aim to extend the understanding of the parameters defining the nature of the projects.

There are certain limitations of the study, which can be briefly debated. It is fair to state that the discussions and the presented study are rather theoretical currently. Even though each of the relevant subjects,
burnout, project management and sustainability, are already established fields of research, the studies covering a cross section of these fields are limited. In addition, project complexity is a deep field of study and alternative perspectives are available in the literature. Since there is no consensus and a single way to define and analyze the complexity of a project, directly linking burnout and project complexity certainly needs more dedicated research in the future.

As a future research direction, existing theories and perspectives in each field may be evaluated and entangled with each other to further understand the concepts. The relationship between burnout and sustainability, and drivers and outcomes of burnout in project management context are obvious, yet under-studied. Such efforts would definitely result in an improved and verified definition for the concept of project burnout as well. Maslach Burnout Inventory and the job demands resources model are assumed to be useful in case of project complexity; however, there are several approaches and a variety of theoretical lenses and tools that can be considered.

Focusing on project complexity while studying burnout will help to understand the project metrics and project environments. Such studies would also contribute to useful practical outcomes. Assessing the differences between industries, organizations, teams, project management approaches or individual parameters will lead to a roadmap to obtain a comprehensive perspective about project-based work and tools to investigate unique cases and examples.

The proposed future work should cover a variety of projects that have been run within different cultures, organizations, industries in order to have a rich and full understanding of the nature of projects and how those characteristics may have an impact on burnout. Increasing numbers of burnout studies in a great number of different project settings would eventually contribute to validation and establishment of the project burnout concept.

To sum up, any future work relevant to burnout and project management would highly contribute to the quest of creating a sustainable and responsible business environment. Humanity is facing new and difficult challenges and has several issues to address in the near future. Climate change, preservation of natural resources, sustainable development or social justice are only some of the items on the agenda and we still do not know what the future will bring more. Thus, it is fair to state that the human is the most important resource that is needed to be sustained. Therefore, each contribution is highly recommended, required and appreciated for a better and sustainable future.

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