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Knowledge-Intensive Organizations and Their Role in Promoting Sustainable Development

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The COVID-19 pandemic constitutes an unprecedented challenge with very severe socio-economic consequences. In the span of only a few weeks, the ways in which we work, communicate, and live our daily lives have drastically changed. Health, education, and research have been decisive for our survival and recovery and have emerged as lifesavers in the face of an increasingly uncertain future at an economic, political, social, and environmental level. In this context, many organizations have had to lower the blinds and close their doors; notwithstanding, knowledge-intensive organizations (KIOs) have showcased their ability to readapt. This situation contrasts with what happened in previous economic crises where KIOs seriously damaged and suffered significant cuts in their budgets (e.g., hospitals, universities, research centers, etc.).

The service sector has an increasing importance in developed economies in recent decades, both in terms of production and employment. Moreover, service activities are being increasingly incorporated into manufacturing companies. KIOs represent a specific case for which capacity depends on the size and composition of the workforce. Even though there is still a lack of consensus on the definition of what a KIO is (Machuca et al. 2007), these organizations are distinguished from others by assuming that profit is not their *raison d'être* or at least not the only one, but knowledge is the key resource, being immaterial and ambiguous (Alvesson 1993).

Another key feature of KIOs is their ability to solve problems by using creative and innovative solutions (Robertson et al. 2003). Thus, the management of knowledge flows within an organization is fundamental as it allows survival in a rapidly changing environment. Since companies do not always have the capacity to generate and exploit knowledge by themselves in isolation, collaboration strategies play an important role (Faccin et al. 2019). The opening of KIOs to external environments furnishes the access to relevant knowledge and technologies for the innovation process, making it more agile (Chesbrough 2003). Not surprisingly, it is very common that innovative business and universities play a fundamental role in the economic, environmental, and social development of a region.

The existing literature on KIOs is rich (Lönnqvist and Laihonon 2017), with a primary focus on its personnel—how knowledge workers are managed (e.g., de la Torre et al. 2016; Lafuente and Berbegal-Mirabent 2019; Millar et al. 2018); information flows—how these organizations contribute to economic growth and business innovation (e.g., Horváth and Berbegal-Mirabent 2020); and knowledge management—the decisions linked to strategic and networking, capacity planning, knowledge retention, and dynamic capabilities (e.g., de la Torre et al. 2017; Dietrich et al. 2010). However, the current economic and social crisis invites us to go a step further and dive deeper into the innovative capacity of these organizations. This approach has been overlooked by academics and policy-makers alike despite the existing evidence on the goodness of prioritizing innovation and development as a strategic tool for economic sustainability (e.g., Cheng et al. 2016).



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Rooted in this context, this Special Issue to produce theoretical and empirical discussions that boost and fertilize the academic debate on the management of highly skilled workers, the decisions regarding knowledge-based institutions and firms, their financial resources management, and their role as a critical and strategic resource and key core competence in the new socio-economics paradigm. Furthermore, we expect to help advance our understanding of the antecedents and challenges ahead of research dealing with KIOs. In the paragraphs that follow, we provide a short overview of the four papers that have been included in this Special Issue.

As discussed in the initial paragraphs, universities are an archetype of KIOs. They are natural sources of knowledge and the design of effective knowledge transfer channels is associated with higher productivity, survivability, and competitive advantage. During the pandemic outbreak, universities not only had to readjust their activities (including a migration to an online environment and working remotely) but also had to attend to the demands from their communities: how to face the new normality and avoid a global collapse. Both the public and the private sectors were in need of new knowledge and technical know-how, as they were looking for alternatives to navigate the multiple challenges that emerged as a result of the COVID-19. In [Terán-Bustamante et al. \(2021\)](#), the authors focus on the linkages between universities and industries during this frenzied period. More specifically, using Bayesian networks, they develop a model to predict the key elements that guarantee successful university–industry linkages. The ultimate purpose is to offer a model that helps businesses make more informed decisions when it comes to design innovation processes and develop new products/services.

A distinguishing feature of KIOs is that they are heavily reliant on human resources. Aiming at diving deeper into the competencies that knowledge workers should possess, [Amoah and Marimon \(2021\)](#) propose an interesting approach to address this topic: project-oriented organizations in developing countries. According to these authors, project success depends on the ability, experience, and personal features of the project manager (PM). While the previous literature has mainly focused on the technical skills and the knowledge PM should possess, the literature seems to have overlooked the soft skills that are required to successfully accomplish a project. Similarly to knowledge workers, PMs' know-how should go beyond technical expertise and include the ability to manage scarce resources, monitor time overruns, and other ad hoc situations, while simultaneously dealing with employees, stakeholders and organizational issues. These skills are particularly relevant in developing countries (DCs) where resources are scarce. This study, therefore, seeks to conceptualize project managers as knowledge workers and characterize the key competencies that are required to effectively manage projects in DCs and Ghana in particular.

Knowledge-intensive business services (KIBS) are a particular type of KIOs. What makes KIBS different is that they are professional organizations operating in the service sector for which the primary value-creating activities comprise the accumulation, creation, or dissemination of knowledge to provide a customized service or solution that satisfies client needs. This definition highlights that the creation of an environment that stimulates and welcomes knowledge is a vital component. The third paper in this collection of studies focuses its attention on KIBS in the IT services industry. Specifically, [Huynh et al. \(2021\)](#) evaluate the impact of firm capabilities—namely, innovation, marketing, networking, and dynamic capabilities—on value co-creation, customer value, and brand equity improvement. The empirical application considers a sample of Vietnamese IT service firms. The study concludes with a series of recommendations for enterprises that want to improve their internal competencies to innovate and respond swiftly to market dynamics.

KIOs are not limited to the service sector. Manufacturing firms can also engage in collaborative initiatives aimed at fostering knowledge creation with the ultimate purpose of developing customized solutions that better meet customer's needs. This is the starting point for the work of [Ahmadi-Gh and Bello-Pintado \(2021\)](#), which claims that product-oriented manufacturing firms are shifting from product-centeredness toward a product-and-service orientation. Their unique contribution stems from analyzing how

and to what extent firms' sustainability practices affect the success of new product development. Sustainability practices are a driver for innovation, and these practices can be implemented internally (as a strategy to improve the internal operations and make them more respectful with the environment and society) and beyond the boundaries of the firm (collaborating with other agents, particularly with suppliers). Therefore, advancing our understanding on how sustainability practices are incorporated in manufacturing firms for the creation of new products is a matter of concern. To investigate this issue, a sample of 281 manufacturing firms from across 3 industries and 16 countries located in Asia, Europe, and America is used.

Overall, the papers included in the Special Issue provide us with a small but stimulating picture of some of the latest developments in the field of KIOs and their challenges ahead. All papers in this Special Issue contribute either to the theory or applications and should be of interest to both academics and practitioners. To conclude, we are grateful to all authors and to the many reviewers who made this Special Issue possible.

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